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Col.

**SYNOPSIS**

**MUSCORUM FRONDOSORUM**

**OMNIUM HUCUSQUE COGNITORUM.**

**AUCTORE**

**Dr. CAROLO MÜLLER.**

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**PARS SECUNDA.**

**MUSCI VEGETATIONIS PLEUROCARPICAR.**

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**BEROLINI**

**SUMPTIBUS ALB. FOERSTNER.**

**1851.**

**Mo. Bot. Garden  
1903.**

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SUBCLASSIS II.

**Pleurocarpi.**

*Fructus lateralis, e gemma distincte laterali oriundus.*

**I. Distichophylla.**

Folia in series duas oppositas disposita.

**Trib. XXI. PHYLLOGONIACEAE.**

Folia horizontaliter inserta, sed verticaliter imbricata, amplexicaulia, e cellulis angustissime linearibus *prosenchymaticis* in membranam veluti homogeneam conflatis areolata, *basi auriculata*, ad *auriculas cellulis alaribus orbiculariter dispositis minutis parenchymaticis incrassatis* praedita, laevissima.

Caulis truncicolus repens, ramis pendulis pinnatis nitentibus elegantibus frondoso-compressis, *Drepanophyllum* v. *Neckeras* in memoriam redigentibus; folia complicato-concava. E structura interna *Pseudopilotrichis* maxime proximae!

**Gen. I. Phyllogonium** Brid.

II. p. 671. — *Pterigynandrum*, *Pterogonium* et *Hypnum* antiq.

Nomen graecae originis, florem femineum in folii axilla inclusum declarans, e vocibus *φύλλον* *folium* et *γόνος* *suboles* ductum.

*Calyptra conico-mitraeformis. Peristomii simplicis dentes sedecim aequidistantes subulati integri. Theca exannulata.*

*Patria.* Regiones aequinoctiales, ubi loca editiora frigidiora habitant.

1. **Ph. fulgens** Brid. (II. p. 671.); *dioicum*; ramificatio frondiformis in stipite brevi nudo late foliosa complanata rigida aureo-nitens, breviuscula bipollicaris, sed ramo communi saepe flexuose et angustissime elongato longississima, simpliciter pinnata, elegantissima; folia caulina late-oblonga, apice excavato recurvo brevi acutiusculo, marginibus plus minus involutaceis, integerrima, auriculis majusculis, cellulis alaribus intense fuscis, in orbiculum majusculum redactis; perichaetalia late convolutacea, longe flexuose et angustissime acuminata, infima minuta late ovata obtusiuscula; theca in ped. parum exserto minute ovalis operculo conico et tenuiter oblique subulato; dentes angusti flavidi transverse trabeculati.

*Pterigynandrum fulgens* Hdw. Musc. Fr. IV. t. 39. — *Pterogonium fulgens* Sw. Fl. Ind. Occ. III. p. 1776. — *Hypnum fulgens* Sw. Prodr. p. 140. — *Phyllog. viride* Brid. II. p. 673, ramus communis angustus elongatus! — *Ph. callichroum* Brid. Hb. seu *Pterigynandrum viscosum* P. B. Prodr. p. 87! ex insulis Mascarenis et Tristan d'Acunha, — *Hypn. naviculare* Brid. II. 540!

*Patria.* America aequinoctialis, ubi frequentissime quidem, sed rarissime fertile viget. Insula Bourbonis, altitud. 6000': Bory St. Vincent. Tristan d'Acunha: Aubert du Petit Thouars.

Pl. mascula femineae similis, floribus multis solitariis turgide gemmaceis, foliis perig. late ovatis convolutaceis, infimis minutis obtusiusculis, superioribus sensim acuminatioribus acutis, basi teneris, cellulis alaribus ut in perich. carentibus. Anth. elongata cernua copiosa, paraph. pallide aureis. Calyptra paraphysibus nonnullis erectis basi subpilosa ab Hedwigio dicitur.

2. **Ph. elegans** Hook. et Wils. (Lond. Journ. of bot. 1844. p. 548.); vage ramosum humile, minutum splend-

dissimum, ramis subsimplicibus brevibus compressis, foliis arcte et concinne imbricatis oblongis subcymbiformibus *obtusis* compresse carinatis integerrimis; theca in ped. brevi *suberecta obovata*, operculo conico rostrato, calyptra mitraeformis subpilosa, basi lacera. †.

*Patria.* In sinu Insel-Bay Novae Seelandiae: J. D. Hooker.

## II. *Tristichophylla.*

Folia in series duas rectas oppositas cauli superiori insertas disposita; in caule inferiore series tertia media foliis minoribus stipulaeformibus, *Selaginellarum* foliis intermediis aemulanti.

Seriei tertiae folia in series proprie duas sed imbricatione plerumque densa vel remotississima obsoletas disposita alterna melius putanda videntur.

## Trib. XXII. HYOPTERYGIACEAE.

Cellulae folii *prosenchymaticae* ubique aequales.

### Gen. I. *Hypopterygium* Brid.

II. p. 709. — *Pterygophyllum* Brid. — *Hookeria*, *Rhacopilum*, *Pterigynandrum*, *Leskea*, *Pterogonium* et *Hypnum* al.

Nomen e graecis vocibus *ὑπό* et *πτερόγυιον* sub alula, ob situm floris feminei sub tutela folii stipulaeformis ductum.

Calyptra *conica latere fissa igitur dimidiata*. Peristomium hypnoideum duplex. Externum dentibus sedecim lanceolato-subulatis transverse trabeculatis, linea longitudinali exaratis, internum membrana carinato-plicata elata in dentes articulatos sedecim, ciliis tenuibus interjectis, producta.

*Patria.* Regiones tropicae et subtropicae, ubi in montes frigidos ascendunt.

Sectio I. *Euhypopterygium.* Plantae dendroideo-ramosae, caule primario repente, stipites apice veluti in frondem filiciformem planam dendroideo-ramosam ramificatos, inferne foliis remotis squamaeformibus obtectos, fragiles emittente, elegantes speciosissimae.

I. *Ramificatio simplex.*

1. **H. Struthiopteris** Brid. (II. p. 716.); stipes erectus, e basi jam ramosus; ramificatio frondiformis basi et apice attenuata, medio dilatata, ramulis simplicibus subflexis; folia parum concava lanceolato-acuminata, nervo excurrente flexuoso cuspidata, fragilia, ubique albescencia et tenuiter marginata, remote eroso-denticulata, e cellulis incrassatis rotundatis areolata; stipulaeformia multo minora anguste lanceolata longe cuspidata, basi subcordata.

*Pterygophyllum Struthiopteris* Brid. Mant. Musc. p. 151. —

*Hypnum Struthiopteris* Schw. Suppl. I. II. p. 182.

*Patria.* Insula Bourbonis: Commerson.

Notis designatis cum nulla alia specie confundenda, memorabilis, tenella.

II. *Ramificatio fasciculata dendroidea.*1. *Ramif. speciosa valde divisa.*

2. **H. Thouini** Mont. (Ann. d. sc. nat. 1845. IV. p. 86.); *dioicum*; speciosum; stipes elatus crassiusculus, foliis squamaeformibus *appresso-vaginantibus late ovatis obtusis* evanidinervibus, ramificatione frondiformi oblique posita subtriangulari-orbiculari dilatata robusta, ad basin fructibus erectis aggregatis instructa, ramis simplicibus plerumque pinnatis flavo-viridibus; folia caulina obliqua late ovata, basi angustata, apice breviter acuminata, *flavo-marginata*, superne minute serrata, e cellulis pachydermibus inanibus areolata, nervo asymmetrico *crasso flavo* evanido abrupto praedita; folia ramulina angustiora, ad unum latus plus quam ad alterum argute serrata; folia stipulaeformia multo minora regulariter ovata acuminata argute serrata, nervo excurrente symmetrico flexuoso tenuiore; perichaetalia *valde exserta, longe lanceolato-acuminata* symmetrica *immarginata integerrima*, nervo tenuissimo evanido, cellulis multo tenerioribus longioribus laxioribus; theca in pedunculo longiuscule exserto flexo pendula dolioliformi-oblonga, ad insertionem plicato-im-

pressa; dentes ext. lati, interni in membrana longissima subrugulosa haud carinati, ciliis binis cohaerentibus interjectis, operc. conico-acuminato obtuso, theca dimidio minori.

Ic. in Gay Hist. de Chile. Bot. Crypt. t. 2. f. 4. — *H. speciosum* C. Müll. Linn. XVIII. p. 683. — *Hypnum Thouini* Schw. Suppl. III. II. 2. t. 289. — *H. Arbuscula* P. B. Prodr. p. 61? — *Hypopt. Arbuscula* Brid. II. p. 717.

*Patria.* Ad fretum Magellanicum, a Commerson primo lectum cl. Schwägrichen dedit Pr. Thouin. Chile: Philippi et C. Gay.

Planta omnium congenerum speciosissima secunda, notis cursive impressis facile discernibilis, partibus omnibus robustis. *H. filiculaeformi* longe recedenti proximum.

**3. *H. filiculaeforme*** Brid. (II. p. 712.); *dioicum*; speciosum; stipes elatus crassus, foliis squamaeformibus albidis parce obsitus, ramificatione longe et dilatate frondosa valde divisa, ramis pinnatis, ramulos stoloniformes dense foliosos breves ex axillis foliorum emittentibus; folia caulis communis magna, late ovata breviter acuminata, apice denticulata planiuscula, pallide viridia, nervo evanescente, *immarginata*; ramulina multo minora, stipulaeformia minuta; omnia rotundato-prosenchymatice areolata; perich. lanceolata obsoletinervia; thecae aggregatae, in pedunculis longiusculis pendulae magnae oblongae, sub ore constrictae; dentes ext. lati interni angusti, ciliis binis interpositis.

*Pterygophyllum filiculaeforme* Brid. Mant. Musc. p. 151. — *Hookeria filiculaeformis* Sm. Trans. of Linn. Soc. IX. p. 278. — *Hypnum filiculaeforme* P. B. Prodr. p. 64. et Schwägr. Suppl. III. II. 2. t. 281. — *Leskea filiculaeformis* Hdw. Sp. Musc. p. 212. t. 50.

*Patria.* Insulae Australes: Banks.

*H. Thouini* proximum, sed notis illustratis facile discernibile.

2. *Ramif. tenella dichotoma.*a. *Areolatio folii rotundata.*

4. **H. concinnum** Brid. (II. p. 714.); *dioicum*; *H. laricino* ex habitu simile, sed folia e basi *subauriculata oblonga breviter acuminata fragilia, e cellulis rotundatis incrassatis diaphanis areolata, limbo incrassato albido circumducta, apice denticulata, nervo in apicem excurrente flexuoso albido*; stipulaeformia *lanceolata longe acuminata, e reliquis caulinis similia*; perich. *convolutacea longissime acuminata enervia vix denticulata immarginata*; thecae aggregatae in pedunculis *brevibus erectae oblongae, operculis longe et recte subulatis.*

*Leskea concinna* Hook. Musc. Exot. t. 34.

*Patria.* In Sinu Dusky-Bay Novae Seelandiae leg. Menzies 1791. Insula Aucklandi antarctica: J. D. Hooker.

Perist. dentes interni ciliis carere dicuntur; dubitamus.

b. *Areolatio folii laxa.*a. *Fila setacea inter folia stipulaeformia.*

5. **H. ciliatum** Brid. (II. p. 710.); *dioicum*; *tenellum*; stipes e basi foliosus, ramis simplicibus v. semel dichotomis; folia caulina late ovata, *ciliato-acuminata, margine haud limbato ciliata, evanidinervia, planiuscula, e lutescente viridia*; stipulaeformia multo minora et angustiora, anguste lanceolata *excurrentinervia, longe ciliata*; filis setaceis acutis utrinque secus fol. stipulaeformium, perichaetialia integerrima; theca solitaria *brevipedunculata erecta oblonga.* †.

*Pterygynandrum ciliatum* Hdw. Sp. Musc. p. 84. t. 17. — *Pterogonium ciliatum* Schw. Suppl. I. II. p. 108.

*Patria.* Insulae Australes: Banks.

6. **H. commutatum** C. Müll.; *dioicum*; *H. tamarisci* simillimum; stipes rectus *crassiusculus foliis squamaeformibus parvis ovatis tenuissime oblique acuminatis enervibus obsitus*; folia caulina late ovata oblique acu-



minata asymmetrica superne argute serrata, nervo longiusculo evanido praedita, immarginata (?), stipulaeformia *anguste perfecte lanceolata argute serrata*, nervo evanido praedita, *filis propriis longiuscule aculeiformibus utrinque commixta*; perichaetia ovato-oblonga, acumine tenuissimo longiusculo, enervia; thecae aggregatae turgide ovaes, basi rugoso-plicatae, peristomio congenerum. †.

*H. tamariscinum* Brid. II. p. 715 ex parte. — *Leskea tamariscina* Hdw. Sp. Musc. Fr. p. 212. t. 51! spec. Jamaicensibus exclusis. — *Hypnum tamarisci* Sw. Fl. Ind. Occ. III. p. 1825; specimina ab auctore ex insulis maris pacifici relata.

*Patria.* Insulae Australes.

7. **H. scutellatum** C. Müll.; *H. commutato* simillimum, folia laxa siccitate crispa late cordata *obtusiuscula apiculata immarginata* serrata evanidinervia, viridia; stipulaeformia *rotundata apiculata serrata*, filis propriis aculeiformibus (spiculis Tayl.) brevioribus strictis fragilibus; thecae medio caulis aggregatae, infra sparsae in pedunculis crassiusculis apice incurvis incrassatis, ovatae subaequales celluloso-tuberculatae, operculis rostratis subinclinatis. †.

*Hypnum laricinum* Hook. Musc. Exot. I, spec. in Capite bonae spei collectis in tab. 34 delineatis exclusis!

*Patria.* Ex Andium regione temperata retulit primus Humboldt, in monte Pichincha Andium Quitensium legit W. Jameson m. Nov. 1846.

β. Fila setacea nulla.

† Folia albide limbata.

8. **H. laricinum** Brid. (II. p. 714 ex parte!) *dioicum*; tenerum, valde repens, stipites multos tenues longiusculos in ramificationem teneram simpliciter pinnato divisam productos emittens; folia caulina e basi lata asymmetrica ovato-acuminata, margine *e cellularum serie unica vix limbata*, irregulariter serrulata, *ubique grosse laxe reticulata et mollia*, utriculo primordiali instructa, nervo tenui evanido; stipulaeformia minora, sym-

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metrica, perfecte ovata acumine longiusculo laxe reticulato terminata, carinata, nervo tenui obsoleto in cellulas elongatas laxas molles dissoluto et in acumen excurrente, e reliquis caulinis similia; perich. longiuscule lanceolato-acuminata, tenerius reticulata, tenuissime limbata integerrima; theca in ped. longo rubro ovata nutans, operculo conico rostrato obliquo.

*Hypnum laricinum* Hook. Musc. Exot. t. 35, excl. spec. in Andibus collectis!

*Patria.* Prom. bonae spei, ubi Menzies primus 1791 legit et in insula Franciae.

*H. tamarisci* simillimum, sed areolatione folii et limbo marginis longe recedit.

9. *H. tamarisci* Brid. (II. p. 715 ex parte.); *dioicum*; *H. laricino* simillimum, sed robustius, folia *minora angustiora laxissime grosse reticulata, distinctissime marginata.*

*Pterygophyllum tamariscinum* Brid. Mant. Musc. p. 154 ex parte — *Hookeria tamariscina* Sm. Trans. of Linn. Soc. IX. p. 279 ex parte. — *Hypnum tamarisci* Sw. Fl. Ind. Occ. III. p. 1825, excl. spec. insulae Franciae, ad *H. laricinum* pertinentibus et spec. maris pacifici insularum speciem novam sistentibus. — *Leskea tamariscina* Hdw. Sp. Musc. Fr. p. 212. t. 51. in insula Jamaica collecta.

*Patria.* Jamaica insula: Swartz in truncis arborum inter muscos sylvarum regionis frigidioris sterile legit.

10. *H. incrassato-limbato* C. Müll.; *dioicum*; *H. laricino* simillimum, sed paulisper robustius, folia e cellulis *multo densioribus minoribus magis incrassatis et pachydermibus areolata, latius incrassate limbata superne denticulata*; stipulaeformia latiora; omnia utriculo primordiali instructa igitur chlorophyllosa; perich. longius acuminata; thecae aggregatae longipedunculatae, nutantes obovales turgidae, operculis cupulatis rubris longe et oblique subulatis; dentes ext. lati, ciliis binis valde nodosis fragilibus inter dentes internos anguste carinatos tenuiter subulatos positos.

*Patria.* Brasilia, insula Stae Catharinae, ad truncos arborum sylvarum ad flum. Itajahi, lapides sylvarum montos. habitans. Jul. Oct. Pabst 1847 legit.

11. **H. didietyon** C. Müll.; *H. incrassato-limbato* simillimum, sed folia caulina oblongo-acuminata, limbo latiusculo albido incrassato homoganeo apice parce denticulato praedita *basi cellulis laxis magnis apicem versus minoribus* pellucidis, utriculo primordiali tenui instructis.

*H. laricinum* Hook. et Wils. in sched. musc. antarct.

*Patria.* Insula Eremitae antarctica: J. D. Hooker.

12. **H. nivale** C. Müll.; *H. incrassato-limbato* simillimum, sed robustius, folia *majora, haud incrassate sed laxius marginata, apice robuste argute serrata, nervo lato constanter in furcam saepe pluries divisam partito multo longiore, cellulis majoribus minus chlorophyllosis, vel chlorophyllo carentibus; stipulaeformia latius cordato-ovata, acumine recto latiusculo, minutius serrata et perfecte marginata obsoletinervia; perich. lanceolato-acuminata enervia elongate reticulata convolutacea; thecae aggregatae in pedunculis longiusculis flexuosis rubris pallescenti-rufae, turgide oblongae sub ore coarctatae, operculis cupulatis longe et oblique subulatis; perist. *H. incrassato-limbati.**

*H. tamariscinum* C. Müll. Linn. XIX. p. 213.

*Patria.* Venezuela, in montibus nivalibus prov. Meridae: Moritz. No. 70. 150.

*H. tamarisci* praeterea utriculo primordiali cellularum ampliorum laxiorum robusto distat. Folia madefacta aquam flavam colorant.

13. **H. rotulatum** Brid. (II. p. 713.); *dioicum; stipes brevissimus, ramificatione tenella rotulata ramulis dense approximatis et dense foliosis, parce dichotomis; folia parva late ovata obtusa mucronata, e cellulis amplis robustis areolata mollia, tenuiter marginata, superne serrulata, evanidinervia, albescencia; stipulaeformia multo minora mucronato-cuspidata, vix denticulata, nervo in*

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mucrone cum margine folii limbato connato; perichaetialia perfecte lanceolata acuminata longiuscula, basi laxe elongate areolata, obsoletinervia carinata, integerrima, thecae subaggregatae in pedunculis longis superne arcuatis perfecte pendulae oblongae; dentes longe subulati, interni anguste carinati, in membrana longa positi, ciliis binis interjectis.

*Pterygophyllum rotulatum* Brid. Mant. Musc. p. 151. — *Hookeria rotulata* Sm. Trans. of Linn. Soc. IX. p. 279. — *Leskea rotulata* Hdw. Sp. Musc. p. 213. t. 51. — *Hypnum rotulatum* P. B. Prodr. p. 69.

*Patria.* Insulae Australes: Banks.

Notis editis primo visu ab omnibus congeneribus diversum.

†† *Folia flavide limbata.*

14. **H. flavo-limbatum** C. Müll.; dioicum; tenerum; stipes brevissimus in ramos elongatos dichotome partitos flaccidos divisus; folia caulina pallida, angustiuscule ovato-acuminata, parum asymmetrica, limbo flavo crasso paullo denticulato circumducta, e cellulis parvis diaphanis subpachydermibus inanibus areolata; nervo flavo evanido; stipulaeformia late cordato-ovata, longiuscule acuminata, nervo carinato in acumen dissoluto, marginata denticulata; perich. longe lanceolato-acuminata tenera immarginata integerrima; thecae aggregatae in pedunculis longissimis flavidis flexuosis minute ovaes horizontales; dentes ext. angusti, interni in membrana breviuscula angusti, ciliis binis breviusculis.

*Patria.* Nepal.

Ab omnibus affinibus notis illustratis certe refugit.

*Hypopterygia incerta.*

1. **H. pennaeforme** Hsch. (Linn. XV. p. 143.); monoicum; caulis secundarius bipollicaris, inferne simplex, foliolis minutis squamaeformibus remotis erecto-patentibus latissime cordato-ovatis longe acuminatis integerrimis enervibus pallidis obtectus, superne pinnato-ramo-

sus, dendroideus, ramis simplicibus v. compositis patentibus complanatis; folia caulina imbricato-disticha, oblique inserta, patentia, ovato-lanceolata obliqua mucronulata, apicem versus magis magisque grosse et profunde serrata, pellucida, intense viridia, nervo distincto concolori supra medium evanido, cellulis anguste linearibus, basi laxioribus; stipulaeformia remota subappressa minora ovata profundius serrata; perich. late oblonga vaginata longe acuminata integerrima enervia, interiora sensim angustiora, paraphyses saepe folioliformi-cellulosas includentia; theca in ped. semunciali solitario erecto apice curvato laevi badio horizontalis elongato-pyriformis; perist. d. ext. ferruginei costato-trabeculati, superne nodosi albicantes, int. aequilongi lanceolato-subulati carinati solidi, ciliis binis capillaribus brevioribus hyalinis reticulatis. †.

*H. pennaeforme* Brid. II. p. 717? — *Hypn. pennaeforme* Thunb. Prodr. Fl. Cap. II. p. 175?

*Patria.* Prom. b. spei, inter Omsamwubo et Omsamcaba, locis sylvestribus umbrosis ad rupes, alt. 800 pedum, 14. Majo 1832.: Drège. In sylvis Houtniquas Thunberg legit.

2. *H. intescens* Hsch. (Linn. XV. p. 144.); caulis secundarius tripollicaris erectus dendroideus bipinnatus, inferne foliolis minimis remotis squamaeformibus erecto-patentibus ovato-acuminatis integerrimis evanidinervibus obtectus, superne ramis patentissimis compressis; folia erecto-patentia laxè imbricata disticha oblique inserta, erecto-patentia, oblongo-ligulata, obliqua mucronulata, caviuscula, apice serrata, pellucida, luteo-viridia, nervo obscuriore lato apicem versus evanescente, cellulis linearibus angustissimis; stipulaeformia remota subappressa ovata acuta profunde concava serrulata. †.

*Patria.* Prom. b. spei, locis non designatis: Drège.

Sectio II. **Rhacopilum** P. B. Prodr. p. 36. Brid. II. p. 718 sub nomine *Racopili* corrigendo. — Plantae procumbentes vage irregulariter pinnate ramosae.

15. **H. tomentosum** C. Müll.; *monoicum*; folia e basi brevissime angustiore asymmetricâ oblonga, lanceolata vel ovato-lanceolata-acuminata, apice recurva denticulata v. serrulata, plana, sublaevissima, nervo in cuspidem longam exeunte viridi, cellulis viridibus mollibus; stipulaeformia e basi late cordata lanceolatâ longissime acuminata et cuspidata, denticulata v. integra; perich. convolutacea late ovata longissime acuminata cuspidata denticulata, laxius reticulata; omnia immarginata; theca in ped. elongato cernuo-cylindrica inclinata striata magna, operculo turgide cupulato longe rostrato, calyptra latiuscule dimidiata parum hirta; perist. longissimum.

*Racopilum tomentosum* Brid. II. p. 719. — *R. mnioides* P. B. Prodr. p. 87. forma humilis, foliis parvulis obtuse lanceolatis, vix denticulatis, ex insulis Mascarenis relatum. — *R. insigne* Hsch. Sieb. Pl. Ins. Trinitatis No. 19., foliis magis diaphanis et distiche complanatis. — *Hookeria tomentosa* Greville. — *Hypnum tomentosum* Hdw. Musc. Fr. IV. p. 48. t. 19. — *H. mucronatum* P. B. Prodr. p. 66, foliis minute et subincrassate areolatis, tenuiter denticulatis, breviter cuspidatis; ex Oware Africae relatum. — *Leskea ornithopodioides* Brid. II. p. 330. — *Hypnum pennatum*, ornithopodioides, pinnulis pellucidis. Dill. Musc. p. 270. t. 34. f. 9. A. B.

*Patria.* Terrae aequinoctiales Americanae et Africanæ. Ex insula Jamaica primus retulit Swartz.

Flores masculi in caulis inferiore pagina aggregati turgide gemmacei parvi, fol. perig. parvis, late ovatis concavis, longissime acuminatis, cuspidatis, tenerius reticulatis, antherid. turgide ovalibus parvulis, paraph. brevibus paucis.

16. **H. spectabile** C. Müll.; *dioicum*; robustum; folia maxima, e basi ad medium dilatato-ovata, acuminata, grosse remote serrata, nervo in cuspidem haud reflexam longiusculam exeunte, margine parum involutaceo, igitur plus minus concava, e cellulis sublaevissimis diaphanis pachydermibus basi multo laxioribus areolata; stipulaeformia magna, praecedentibus minora, late cordato-lanceolata longe acuminata et cuspidata grosse serrata; perich. latissime ovata integerrima, nervo in cuspidem longam tenuem flexuosam exeunte, convolutacea; laxissime

*elongate reticulata*; theca in ped. *longissimo* robusto *elongata anguste cylindrica* cernua horizontalis, opere. longe rostrato; perist. congenerum robustum.

*Racopilum spectabile* Reinw. et Hsch. Nov. Act. Leop. XIV. II. p. 721. t. 40. — *Hypnum Moritzii* Duby in Moritzi Pl. Zolling. p. 131.

*Patria.* Java: Reinwardt primus legit.

Ab *H. tomentosum* notis cursive impressis longe recedit; ab *H. tomentosum*  $\beta$ . *insigni*, ex areolatione diaphana sublaevissima simili, statura spectabili et omnibus partibus robustissimis primo visu distinguitur.

**17. *H. arcuatum* C. Müll.**; folia appresso-patula cordato-lanceolata, basi infima haud angustiore, breviter apiculata, serrata symmetrica, stipulaeformia minora, e reliquis praecedentibus similia, omnia pallide viridia; theca in ped. in arcum magnum decurvato recte cylindrica striata subulato-rostrata, perist. congenerum.

*Pterygophyllum arcuatum* Brid. II. p. 348. — *Hypnum arcuatum* Hdw. Sp. Musc. p. 245. t. 62.

*Patria.* Insulae Australes: Banks?

Ab *H. tomentosum* et  $\beta$ . *insigni* simillimis notis cursive impressis facile distinguitur.

**18. *H. convolutaceum* C. Müll.**; dioicum; tenerius; folia maxime ad paginam inferiorem caulis spectantia, amoene lutescentia, e basi symmetrica late ovata, haud brevissime angustiore, lanceolato-acuminata, teneriora et tenuius reticulata scaberrima, convolutaceo-concava, margine undulato-flexuosa; stipulaeformia praecedentibus parum minora e basi late cordato-ovatâ lanceolata longissime cuspidata; fructus tenerior.

*Racopilum tomentosum* Hmp. in Lehmann Pl. Preiss. II. p. 119!

*Patria.* Nova Hollandia: Preiss. Ex Isle de King Novae Hollandiae habuit Hb. Reg. Berol.

Ab *H. tomentosum* longe refugit.

*Species obscurae.*

**1. *Hypnum Mougeotianum* A. Rich.** (Fl. Nov. Zeel. p. 57 teste Hooker Companion to the bot. Magazin II. p.

## 14 STEGOCARPI. PLEUROCARPI. CYATHOPHORUM.

336.); „foliis distichis sessilibus oblongis undulatis, longissime acuminatis setosisque stipulaceis alternis dimidio brevioribus, perichaetialibus basi coalitis lanceolatis apice in seta gracili longa sensim desinentibus, capsula oblonga arcuata subcernua, operculo longirostro.”

*Patria.* Nova Seelandia: Dumont d'Urville 1827.

2. **Hypnum cuspidigerum** Schw. (in Voy. autour du Monde, par M. L. de Freycinet. 1826. Bot. p. 227.); repens, ramis vagis subcompressis; folia ovata concava, nervo cuspidata integerrima.

*Hookeria* (*Rhacopilum*) *tomentosa* var. *subintegrifolia* Walk. Arn. Disp. d. M. p. 58.

*Patria.* Insulae Sandwichenses: Gaudichaud.

Folia leptostomoidea et caulis radicularum longarum fasciculos exserens dicuntur. Propria species videtur.

### Gen. II. **Cyathophorum** P. B.

Prodr. p. 52. — Brid. II. p. 721. — *Pterygophyllum* Brid. olim. — *Hookeria* Hook. — *Leskea* Schw. — *Anoetangium* Hdw.

Nomen graecae compositionis, a *κύθος* *cyathus* et *φορέω* *fero*, vaginulae cui pedunculus inseritur formam designans.

*Calyptra mitraeformis.* Peristomium duplex generis *Hypopterygii*, interius ciliis singulis interjectis.

1. **C. bulbosum** C. Müll.; caulis repens plerumque tomentosus, stipites simplices elongatos jungermannioideo-foliosos basi tomento veluti bulbosos, atros triangulares emittens; folia viridia v. lutescentia asymmetrica, e basi brevissime angustiore latissime ovata obtuse acuminata, apice grosse argute serrata, immarginata, obscura, e cellulis laxissimis magnis pachydermibus utriculo primordiali robusto praeditis areolata, nervo brevi evanido latiusculo basi furcato; stipulaeformia praecedentibus simillima, sed multo minora rotundato-ovata acuminata symmetrica; perich. pauca angustissime lanceolata longe



cuspidata denticulata enervia; thecae utrinque secus foliorum stipulaeformium positae, in ped. perbrevibus rectis vaginulae cyathiformi insertis rectae ovaes parvulae, operculis conico-acuminatis, calyptra conica tenera obtectis, dentibus ext. linea longitudinali valde exaratis.

*C. pennatum* Brid. II. p. 722. — *C. pteridioides* P. B. Prodr. p. 52. — *Pterygophyllum pennatum* Brid. Mant. Musc. p. 154. — *Hookeria pennata* Sm. Linn. Trans. IX. p. 277 et Hook. Musc. Exot. t. 163. — *Leskea pennata* Labillard. Nov. Holl. Pl. II. p. 106. t. 253. — *Anoetangium bulbosum* Hdw. Sp. Musc. p. 43. t. 6.

*Patria.* Ex insulis Australibus primus retulit Banks; in insula Van Diemen: Labillardiere et R. Brown; in insula Aucklandi formam minorem legit J. D. Hooker.

Planta elegantissima, foliis areolatione laxa *Pterygophyllis* similis, sed foliis tristichis ab *Hypopterygiaceis* non separanda, calyptra conica genus egregium sistens.

#### Genus incertum.

#### Gen. **Helicophyllum** Brid.

II. p. 771. — *Schistidium* ej. I. p. 121. — *Anoetangium* Hook. Musc. Exot.

Nomen graecae compositionis, e verbis ἥλιξ *spira* et φύλλον ob folia in helicem convoluta ductum.

Calyptra —? Peristomium nullum.

*Patria.* America solstitialis.

1. **H. torquatum** Brid. (l. c.); dioicum; maxime tomentosum; caulis tenellus repens parce et breviter dichotomus; folia amoene viridia dense imbricata, siccitate apicibus maxime involutis, oblongo-ligulata obtusa, infima basi paucissime asymmetrica, tenuissime flavide marginata, integerrima, chlorophyllosa scaberrima dense et minute prosenchymatice areolata; stipulaeformia multo minora lanceolata, multo tenerius reticulata vix marginata, omnia evanidinervia; perichaetia valde exserta multa pallidiora, perichaetium conicum calyptrae hirsutae veluti aemulans efficientia, perfecte lanceolata robusta laevia, e cellulis elongatis teneris parenchymaticis et prosenchy-

maticis areolata integerrima, immarginata, nervo crasso flavo excurrente praedita; theca in ramulo elongato inter ramulos plures incluso pseudoterminali immersa parva oblonga, operculo minuto cupulato breviter mammillato.

*Schistidium torquatum* Brid. I. p. 121. — *Anictangium torquatum* Hook. Musc. Exot. t. 41. et Schwägr. Suppl. II. I. p. 5. t. 103.

*Patria.* Brasilia, ad ripam fluminis Amazonum in umbrosis calidis provinciae Jaen de Bracomoros prope Tomependam: Humboldt et Bonpland primi legerunt. Serra de Santa Brida prov. Goyaz, Febr. 1840.: Gardner No. 5. In locis non indicatis leg. Sellow. In insula Portorico collegit Bertero formam minorem.

*Rhacopilum* forsitan erit.

### III. Polystichophylla.

Folia in series quatuor et ultra disposita.

#### Trib. XXIII. MNIADELPHACEAE.

Cellulae retis folii *parenchymaticae*, plerumque aequaliter hexagonae *mnioideae*, laevissimae pellucidae, utriculo primordiali carentes, infimae basis in caulem decurrentibus majoribus spongiose laxis, plerumque pulcherrime fuscis; nervus unicus tenuis.

*Hookeriis* plantae proximae pulcherrimae, structura folii tenella pulchella praeditae, characteribus cursive impressis ut *Mnia* a *Bryis* distinctae.

*Patria.* Regiones maritimae v. humidae plerumque hemisphaerae meridionalis.

#### Gen. I. **Daltonia** Hook. et Tayl.

Musc. Brit. ed. I. p. 80. — Brid. II. p. 255. — *Hookeria* Hook. et al. — *Neckera* Engl. Bot. Sm.

Nomen in honores D. James Dalton muscorum Britannicorum acris indagatoris conditum.

Calyptra *mitraeformis campanulata*, basi eleganter fimbriata. Peristomium duplex *neckeroideum*;

externum: dentes sedecim angusti subulati humiditate reflexi, trabeculati; internum: *cilia totidem similia cum dentibus alternantia membrana basilari carentia.*

Genus egregium pulchellum.

1. **D. splachnoides** Hook. et Tayl. (Musc. Brit. ed. I. p. 90. t. 3 et 22.); *monoica*; pusilla tenella pulchella flavo-viridis pulvinata, parce et breviter ramosa; folia caulina dense conferta nitidula erecta, anguste lanceolata acuminata, ubique crassiuscule flavo-marginata, integerrima, nervo ante apicem evanido flavido, cellulis infimae basis fuscis magnis laxis, supra basin pellucidis parvis angustis, apice magis incrassatis ellipticis flavidis; perich. similia; theca in ped. brevi apice subscabro apophysate ovalis substrumosa minuta brunnea, exannulata, operculo conico longe subulato pallide ochraceo, dentibus externis angustissimis longe subulatis, e cellularum seriebus duabus compositis, humiditate reflexis, internis angustioribus rugulosis aequalibus, calyptra minutissima elegantissime fimbriata glabra.

Schwägr. III. II. 2. t. 295. — Brid. II. p. 255. — *Hookeria splachnoides* Hook. Engl. Fl. V. I. p. 74 et Fl. Hibern. II. p. 37. — *Neckera splachnoides* Engl. Bot. t. 2564, excl. syn. Schwägr. Sppl. I. II. p. 151. t. 82.

*Patria.* Hibernia, in montanis maritimis ad margines rivulorum ad terram et in Ericarum ramulis, Secawn Mountain pr. Dublin, ubi Taylor detexit, Tuck Mountain et Cromaglown pr. Killarney: W. Wilson.

Flos masc. in vicinia feminei minutissimus, fol. perig. subconvolutaceis immarginatis latioribus, antheridiis perpaucis minutis eparaphysatis. — In Brasilia (Serra de Piedade) a beato Gardner (Coll. No. 78. nobis haud vis.) collecta et ab Hook. et Wils. *D. splachnoides* credata species nova erit.

2. **D. nervosa** Hmp.; *D. splachnoidi* simillima, sed magis crispata, folia *distincte carinate* lanceolata, lamina apice *inaequali*, nervo flavido longe excedente torte cus-

*pidata*, cellulis supra basin pellucidis laxis *paucis et sensim multo minoribus apice rotundatis* pachydermibus pellucidis et flavidis; theca *ovato-cylindrica*, erecta apophysata, calyptra eleganter fimbriata *duplo longior*, peristomium *brevius*.

*Hookeria nervosa* Hook. et Wils. Lond. Journ. 1844. p. 549.

*Patria.* Insulae Aucklandi: J. D. Hooker.

Fructum non vidimus.

**3. *D. angustifolia*** Dz. et Molkb. (Musc. Archip. Ind. II. 1845. p. 31. t. 13.); *monoica*; *D. splachnoidi* simillima, sed *magis crispa*, folia *angustissima*, tenuissime *marginata*, e cellulis *ubique pellucidis tenerioribus* composita, *flaccidiora*, perich. caulinis *latiora*; theca in ped. *ascendente superne scabro major*, dentibus externis *latioribus distincte trabeculatis subrugulosis*, internis *valde rugulosis aequalibus*.

*Patria.* Borneo, ad ramos arborum et in terra *cespitose crescens*: Korthals.

Flos masc. et caetera *D. splachnoidis*.

**4. *D. longipedunculata*** C. Müll.; *monoica*; pusilla *laxe foliosa flaccida*; folia caulina *crispatula*, madefacta *valde patula longissima* anguste lanceolata in acumen *fili-forme* longiusculum producta, *profunde carinata*, cellulis *ubique pellucidis v. apice subobscuris*, basi *laxioribus*, margine *valde revoluta*, *basi late flavide limbata*, nervo *flavido longe infra apicem evanido*; perich. *latiora minora acuminata obsoletinervia vix marginata*; omnia *integerima*; theca in ped. *elongato laevi purpureo haud curvato stricto apice in collum angustum longiusculum subrugulosum incrassato* erecta *obovalis minuta*, ore *minori parum coarctato*.

*Patria.* Java, monte Sakoembang; inter *Hypnum dealbatum* (*Hypnum Vriesii* Dz. et M. Hb. Lugd. Batav.) specimina duo imperfecta invenimus.

A *D. angustifolia* proxima vestigiis laudatis longe distincta. Peristomium, operculum et calyptram non vidimus.

5. **D. ovalis** Tayl. (Lond. Journ. of bot. 1846. p. 66.); *D. splachnoidi* similis, sed *major robustior, aureo-flavida, rami compressi, folia oblongo-lanceolata apiculata canaliculata substriata, margine reflexa, nervo tenuissimo ante apicem evanido; theca in ped. scabro ovalis, ore magis contracta, minute apophysata; caetera D. splachnoidis.* †.

*Patria.* Andes Quitenses, ad truncos arborum pr. Cayambe altitud. c. 14000': W. Jameson legit 20. Oct. 1827.

6. **D. Jamesoni** Tayl. (Lond. Journ. of bot. 1848. p. 283.); *monoica; dense cespitosa, erecta subsimplex longior, crassitudine magis aequali, subcompressa, pallide flavido-viridis; folia arcte imbricata erecta, late ovata acuminata, medio uniplicata, margine limbato reflexo integerrimo, nervo evanescente, cellulis grossis; theca in ped. scabro erecta subaequalis ovata, operc. longirostro subinclinato, calyptra apice scabra et basi dense laciniata; perist. d. ext. lineari-lanceolati, interni cilia filiformia pallida.* †.

*Patria.* Monte Pichincha Andium Quitensium, ad limitem glac. aeternae: W. Jameson 1847. Julio.

A *D. splachnoide* notis cursive impressis ex auctore differt. Perigonia minuta, foliis paucis, internis teneris obtusis.

7. **D. longifolia** Tayl. (Lond. Journ. of bot. 1848. p. 284.); *monoica; erecta, laxe cespitosa, subramosa, pallide flavido-viridis, subcompressa, ramis apice latioribus; folia imbricata, erecto-patentia, flexuosa, lineari-lanceolata, acuminata, apice flaccidiora, canaliculata, margine limbato pellucido plano integerrimo, nervo evanescente, cellulis densis minutis; perich. interna acuminata tenera; theca in ped. scabro erecta oblongo-ovata subaequalis, operc. longirostro, calyptra basi dense laciniata.* †.

*Patria.* Monte Pichincha: W. Jameson 1847. Februario.

Ex auctore foliorum longitudine et cellulis minutissimis distinctissima.

## Gen. II. **Mniadelphus** C. Müll.

Bot. Zeit. 1847. p. 938 et Linn. XXI. 1848. p. 196. — *Distichophyllum* Dz. et Molkb. 1846, genus nilminus quam acute et sine notis distinguentibus veris conditum, cum speciebus alienis commixtum. — *Hookeria* eor. et al. — *Pterygophyllum* Brid. — *Hypnum* Hdw.

Nomen a *Mnium* (μνίον) dicto genere acrocarpico et ἀδελφός *frater*, ob reticulationem folii similem ductum.

Calyptra *mitraeformis campanulata*, basi eleganter fimbriata. Peristomium duplex; externum: dentes sedecim lanceolato-subulati, linea longitudinali lata pallidior v. angustissima notati; internum: *membrana carinata, in dentes sedecim carinatos divisa, ciliis rudimentariis interpositis.*

*Daltoniae* maxime affine, sed peristomio et caule compresso latifolio certe distinctum genus, regiones tropicas, calidas et antarcticas praesertim maritimas insulares habitans. Plantae complanatae laxifoliae mniioideae, foliis plerumque spathulatis, quorum limbus in speciebus marginatis facile solubilis.

### a. *Folia immarginata.*

**1. M. microcarpus** C. Müll.; *dioicus*; procerus subsimplex albide virescens, inferne nudiusculus, caule molli crassiusculo; folia caulina laxe imbricata viridia, *maculo magno albido e basi ad medium folii producto notata, e basi breviter spathulatâ suborbicularia immarginata integerrima obtusissima*, cellulis *infimae basis* et inde utrinque nervi tenuis viridis supra medium evanidi magnis laxis *pellucidis* illud maculum efficientibus, ad marginem et apicem versus multo minoribus pachydermibus diaphanis, maculum cingentibus; perich. minutissima ovato-acuminata ubique laxe areolata pellucida; theca in ped. subcurvato crassiusculo *purpureo erecta minute ovalis.*

*Pterygophyllum microcarpum* Brid. II. p. 242. — *Hypnum microcarpum* Hdw. Sp. Musc. p. 214. t. 59. — *H. microcranthum* P. B. Prodr. p. 66.

*Patria.* Insulae Australes: Banks.

**2. M. quadrifarius** C. Müll.; *dioicus*; robustissimus procerus *latissime complanatus aureo-nitens*, ramis obtusis elongatis ascendentibus; folia caulina octofaria laxissime imbricata, e basi subspathulata ligulato-rotundata, basi subasymmetrica, lata vel serierum anticarum et posticarum multo minora orbicularia, omnia immarginata, nervo *rubro crasso* citra medium evanido aliquanto apice bifurco, cellulis *ubique laxissimis* parenchymaticis; perich. minuta ovato-acuminata enervia; theca in ped. longiusculo crasso rigido apice arcuato *nutans magna, cylindraceo-oblonga, fusca, basi nigricans et tuberculis grossis aspera*; perist. d. ext. linea media maxime hiante adeo, ut lamina superior in crura duo remota apice tantum connata fusca dividatur, int. in membrana longa carinata pertusi, ciliolis solitariis rudimentariis. †.

*Pterygophyllum quadrifarium* Brid. II. p. 347. — *Hookeria quadrifaria* Hook. Musc. Exot. t. 119. — Schw. Suppl. II. II. 1. p. 32. t. 162.

*Patria.* In sinu Dusky-Bay Novae Seelandiae: Menzies 1791.

b. *Folia marginata.*

α. *Folia rotundata plus minus mucronulata.*

**3. M. rotundifolius** C. Müll.; *dioicus?* ramosus complanatus, ramis compressis; folia imbricata subdisticha *ovato-rotunda apiculata marginata, apice denticulata*, seminervia, majuscule hexagone reticulata; theca in ped. laevi elliptico-oblonga horizontalis, operculo rostrato. †.

*Hookeria rotundifolia* Hook. et Wils. Lond. Journ. of bot. 1844. p. 551.

*Patria.* Insel-Bay Novae Seelandiae: J. D. Hooker.

*M. Dicksoni* ex animadv. auct. proximus, foliis minoribus, margine majori denticulatis, a *M. crispulo* foliis rotundis et cellulis majoribus conformibus distinctus.

4. **M. Hornschuchii** C. Müll.; *dioicus?* *minutus subsimplex*; folia caulina spathulata mucronulata marginata integerrima, cellulis basi *laxissimis* sublinearibus vel subquadratis hyalinis, apicem versus sensim minoribus confertioribus *subcircularibus*, pellucidis, nervo obscuriore supra medium evanido; perich. interiora minora erecta oblonga *breviter acuminata*; theca in ped. brevi laevi erecto purpurascente suberecta oblonga angusta subapophysata, sicca basi et ore contracta, operc. conico-acuminulato apice curvato; perist. dentes ext. in acumen subulatum nodosum albescens producti, valde trabeculati albidi, int. illos aequantes. †.

*Hookeria mniifolia* Hsch. Linn. XV. p. 141.

*Patria.* Prom. b. spei, prope Koratra in sylva, altitud 1000' in truncis putridis: Drège, 5. Oct. 1831.

Omnium congenerum minutissima. Calyptra ignota. Notis cursive impressis facile a *Mn. Montagneano* discernibilis.

5. **M. Montagneanus** C. Müll.; *dioicus?* procumbens *pusillus tener viridis* parce ramosus; folia laxè appressa, e basi spathulatâ *anguste oblongo-ovata brevissime mucronata*, limbo *tenuissimo pallido integerrimo*, nervo ante apicem evanido pallido, cellulis *parvis valde pachydermibus*, basi majoribus; perich. multo minora ubique laxè reticulata obsolete marginata; theca in ped. *glabro* ascendente *crassiusculo breviusculo* suberecta oblonga subapophysata, operculo conico acuminulato apice curvato.

*Hookeria mniifolia* Mont. Crypt. Nilgheriens. No. 21. in Ann. d. sc. nat. 1842.

*Patria.* Montes Neelgherienses ad radices fructicum: Perrottet.

Exiguitate et colore viridi primo adspectu a ceteris congeneribus discernibilis. Fructum non vidimus.

6. **M. flaccidus** Hmp. (in litt.); *dioicus?* *elongatus erectus debilis angustus gracilis* compressus, ramis paucis *elongatis flaccidis*; folia laxè conferta, *late ovate oblonga*, apice *ligulato-obtusa*, interdum brevissime mu-



cronata, *cymbiformi-concava*, *viridia*, *fragilissima*, nervo *elongato* viridi tenuissimo evanido, limbo ubique tenui flavido integerrimo, cellulis ubique pellucidis laxis basi majoribus *valde irregulariter* hexagonis, infima basi fuscis; theca in ped. *elongato* laevi erecta obovato-oblonga, operculo rostrato, calyptra glabra, basi fimbriata.

*Hookeria flaccida* Hook. et Wils. Lond. Journ. of bot. 1844. p. 549.

*Patria.* Insula Eremitae ad Cap. Horn: J. D. Hooker.

Fructum non vidimus. Species characteribus explicatis ab omnibus congeneribus primo visu distinguenda memorabilis.

7. **M. contortifolius** C. Müll.; *dioicus?* repens ramulosus; folia spathulata v. *oblongo-lingulata obtusissima* undique imbricata, nervo ante apicem evanido, marginata, *sicca et madefacta contorta laete viridia*. †.

*Hookeria contortifolia* Mont. in Ann. d. sc. nat. 1843. XIX. p. 240.

*Patria.* Insulae Sandwicensis: Gaudichaud.

Ex animadv. auctoris *M. Montagneano* proximus.

8. **M. pulchellus** Hmp. (in litt.); *dioicus*; tenellus *pulchellus sulphureus elatiusculus compacte cespitosus* fragilis; folia caulina laxo erecto-appressa, e basi breviter spathulatâ *ovato-rotundata brevissime mucronata*, nervo tenuissimo *pallido* ultra medium producto, limbo ubique tenui *pallide sulphureo* integro circumducta, cellulis ubique *teneris pellucidis* minutiuscule aequaliter hexagonis, basi parum laxioribus et infima basi paulisper fuscis; perich. minora tenuiora, intima *ligulato-obtusata*; theca in ped. *longiuscule exserto distincte conspicuo* glabro minute cylindraceo-obconica sublongicolla, operc. conico rostrato, calyptra basi *densissime breviter pallide* fimbriata, glabra; perist. minutum *M. aurati*.

*Hookeria pulchella* Hook. et Wils. Lond. Journ. of bot. 1844. p. 548.

*Patria.* Insulae Aucklandi: J. D. Hooker.

A *Mn. aurato* proximo characteribus cursive impressis facile distinguendus, pulcherrimus.

9. *M. spathulatus* C. Müll.; *dioicus*; caulis ascendens parce dichotomus laxifolius nigrescens fragilis; folia octofaria erecta, e basi longe anguste spathulatâ ovato-rotundata, apice brevissime mucronata, ubique tenuissime flavide marginata integerrima, margine parum undulata, iricolora, nervo flexuoso ante apicem evanido, cellulis infra basin magnis fuscis, inde usque fere ad medium folii pellucidis longis amplis, ceteris multo minoribus pellucide viridibus; perich. parva lanceolata immarginata, ubique fere laxè areolata; theca in ped. brevi flexuoso valde hispido purpureo inclinata v. pendula minute ovato-subglobosa scabriuscula, operculo conico subulato sublongiori, calyptra longe fimbriata ciliate hispida; perist. generis, interni dentes carinati perforati.

*Distichophyllum spathulatum* Dz. et Molkb. Musc. Archip. Ind. p. 103. t. 34 et 35. A. — *Hookeria spathulata* eor. Ann. d. sc. nat. 1844. p. 305. — *Hook. seminervis* Mont. Ann. d. sc. nat. 1845. p. 93.

*Patria.* Java, in monte Salak prope Papandajang: Kuhl, van Hasselt, Zippelius; prope Buitenzorg: Hb. Miquel. Sumatra, in monte Singalang: Korthals.

Flores masculi in planta humiliore, fol. perig. nervibus, caulinis laxius areolatis, ext. ovato-oblongis undulatis, int. brevioribus late ovatis obtusis valde concavis; antheridiis copiosis paraphysatis. *Mn. cuspidato* proximus.

β. Folia acuminato-apiculata.

10. *M. paradoxus* C. Müll.; *dioicus?* erectus elongatus pluries et breviter dichotomus flavide viridis flaccidus latiuscule complanatus; folia caulina laxè conferta, elongate anguste oblongo-lanceolata, breviter mucronata, paulisper undulata, ubique tenuiter albide limbata, apice parce obsolete denticulata, nervo elongato flexuoso albido ante apicem evanido, cellulis infimae basis magnis fuscis, basis elongate hexagonis, superioribus sensim minoribus

aequaliter hexagonis pachydermibus, omnibus pellucidis; calyptra fimbriato-ciliata.

*Hookeria (Pterygophyllum) paradoxa* Mont. Voy. d. l. Bonite. Bot. p. 296.

*Patria.* Sandwich insulae: Gaudichaud.

Fructum non vidimus. Characteribus cursive impressis primo visu distinguendus.

**11. M. crispulus** C. Müll.; *dioicus? humilis* ramosus complanatus, ramis compressis; folia laxè imbricata subdisticha patentia *subobliqua* apiculata marginata subundulata, integerrima seminervia *opaca, inferne pellucida, siccitate crispata*; perich. ovato-acuminata; theca in ped. laevi ovata horizontalis, operculo rostrato, calyptra *subpilosa* basi fimbriata. †.

*Hookeria crispula* Hook. et Wils. Lond. Journ. of bot. 1844. p. 550.

*Patria.* Insel-Bay Novae Seelandiae: J. D. Hooker.

*M. Dicksoni* ex animadv. auctorum affinis, areolis autem minutioribus.

**12. M. Dicksoni** Hmp. (in litt.); *dioicus; M. pulchello* similis, sed angustior tenerior magis sulphureo-viridis; folia *parva jungermannioidea*, e basi brevissime subspathulata rotundato-ovata, *in acumen longiusculum tenuissimum* producta, ubique pallide flavide limbata, *marginè toto fere tenuiter revoluta, cochleariformi-concava*, nervo *maxime tenui brevissimo, raro ad medium producto*, cellulis ubique pellucidis teneris laxis majoribus, basi parum laxioribus et infima basi paulisper fuscis; perich. minora magis acuminata tenerrima irregulariter plicata obsolete limbata; theca et peristomium *M. pulchelli*, calyptra glabra, basi ciliis fugacissimis tenerrimis *v. laciniis latiusculis*.

*Hookeria Dicksoni* Hook. Lond. Journ. of bot. 1844. p. 549.

*Patria.* Insulae Eremitae et Falklandi ad Cap. Horn: J. D. Hooker.

Flos masc. minutus, fol. perig. caulinis minoribus ovato-lanceolatis, antheridiis intense fuscis paucis.

13. **M. Freycineti** C. Müll.; *dioicus?* procerus subsimplex laxifolius; folia *lata, oblongo-acuminata, undulato-flexuosa, ubique latiuscule flavide marginata* integerrima, nervo flexuoso subtenui infra apicem evanido, cellulis infimae basis *magnis fuscis, inde usque fere ad medium folii magnis laxis pellucide viridibus, superne multo minoribus pellucidis.*

*Hookeria Freycineti* Mont. Voy. Bonit. Bot. I. p. 296. — *Hypnum Freycineti* Schwägr. Suppl. III. II. t. 279. et C. Müll. Synops. Musc. Frond. I. p. 168 inter *Mnia* dubia, ubi species deletur. — *Mnium giganteum* Schw. in Freycinet. Itin. per orbem I. p. 227.

*Patria.* Insulae Sandwich: Gaudichaud.

*M. paradoxo* proximus, notis autem cursive impressis longe distans.

14. **M. cuspidatus** C. Müll.; *dioicus*; ascendens pusillus parce ramosus dense foliosus *pallide viridis*; folia laxe appressa erecta, e basi longe spathulata angustata *ovata cuspidate acuminata, tenuiter pallide limbata, margine undulata, nervo ultra medium producto pallido flexuoso, cellulis infimae basis fuscis magnis, ceteris ubique laxis pellucidis, inferioribus elongatis amplis*; perich. multo minora ovato-lanceolata acuminata, concava, obsolete limbata, teneriora et laxius reticulata, intimum subconvolutaceum; theca in ped. brevi ascendente, *apice erecto-curvato, scabriusculo* et in collum incrassato, minutiuscule obconica fusca subrugulosa, operc. conico subulato recto, calyptra parva *breviter fimbriata glabra*; perist. *M. spathulati*, interni dentes minus perforati magis punctati.

*Distichophyllum cuspidatum* Dz. et Molkb. Musc. Archip. Ind. p. 101. t. 33. — *Hookeria cuspidata* eor. Ann. d. sc. nat. 1844. p. 305.

*Patria.* Java, prope Limbang: Zippelius, Korthals; Sumatra, in arborum cortice juxta flumen Batang-Bessie: Korthals.

A *Mn. spathulato* proximo notis explicatis facillime distinguendus.

15. **M. auratus** C. Müll.; *dioicus*; pusillus tenellus *auratus* late gregarius v. cespitosus, parce dichotomus,

erectus, subrosulatus; folia caulina laxè appressa, e basi breviter spathulata oblongo-ovata cuspidate acuminata, undulate flexuosa, *pulcherrime aurato-flavida*, ubique *crassiuscule flavide limbata* integerrima, nervo parum carinato flexuoso ante apicem evanido, cellulis *ubique fere parvis pachydermibus flavidis subrotundis*, basis infimae fuscis laxis, basis ipsius brevissimae longioribus; perich. *paucissima minutissima* lanceolato-acuminata obsolete marginata; theca in ped. brevi erecte curvato glabro superne in collum breve incrassato *minutissime ovalis*, aperta urceolata, subrugulosa intense fusca, operculo conico subulato recto, calyptra eleganter *aurate* fimbriata glabra; perist. *minutissimum*: externi dentes angustissime subulati *maxime trabeculati*, linea longitudinali angustissima exarati, interni dentes in membrana brevi carinate lanceolati haud perforati rugulosi.

*Patria.* Insula Antillarum Trinidad, ubi in monte Tocuche 4. Dec. 1847. legit Crüger.

#### Mniadelphi obscuriores.

**1. Hypnum ? Magellanicum** P. B. (Prodr. p. 66.); ramosum erectum; folia obovata mniioidea pellucida acuminata; calyptra basi ciliata. †.

Brid. II. p. 541.

*Patria.* Fretum Magellanicum: Hb. Jussieuan.

*Mniadelphus* verus; an autem propria species, e diagnosi pauperrima haud elucet.

**2. Leskea apophysata** Hsch. (Fl. Bras. I. p. 74.); monoica prostrata gracilis, ramis compressis decumbentibus tenuibus subpinnatim ramulosis, ramulis brevibus patentibus v. erectiusculis; folia caulina subdisticha remota patentia ovato-lanceolata serrata, pallide viridia, nervo carinato concolori supra medium evanido, cellulis parallelogrammis angustis; perich. longe et longissime acuminata, intima minuta lanceolato-subulata subhyalina, integerrima enervia; theca in ped. gracili sursum incrassato laevi parum flexuoso parva ovata apophysata cernua,

operculo longiori conico subulato; perist. dentes ext. conniventes, sicci erecti ferruginei apice pallidiores trabeculati, interni aequales carinati articulati, e basi usque fere ad apicem fissi. †.

*Patria.* Brasila, Serra dos Orgaôs, ad truncos arborum sylvestrium: Beyrich, Febr. legit.

Calyptra deest. Ex auctore ad *Hookerias* accedens.

**3. *Hookeria punctata*** Hook. et Wils. (Lond. Journ. of bot. 1844. p. 550.); *dioicus?* pinnatim ramosus, ramis compressis; folia subdisticha imbricata patentia *obovata subapiculata serrulata minute igitur punctate areolata*, seminervia; perich. *squarrosa*; theca in ped. laevi *nutans* elliptica, operculo rostrato, calyptra glabra albida carnososa. †.

*β. oblongifolia*; rami minus compressi, folia erecto-patentia oblongo-obovata, siccitate undulata, eroso-denticulata, nervo validiore ultra medium producto. †.

*Patria.* Insel-Bay Novae Seelandiae: J. D. Hooker.

Var. *β.* fortasse species propria, caule subdendroideo, ramis distinctius pinnatis arctioribus, foliis longioribus densius imbricatis undulatis, colore intensius viridi. Calyptra haud fimbriata? Videtur.

#### Trib. XXIV. HYPNOIDEAE.

Cellulae folii *prosenchymaticae*, densae v. laxae, laeves v. papillosae. Cellulae alares folii baseos diversae: 1. quadratae planiusculae v. ventricose impressae, pellucidae v. flavidae seu fusciscentes; 2. paucae vesiculaeformes, ad infimam basin positae amoene flavidae v. hyalinae; 3. obsoletae vix ullae, ad infimam basin positae fugaces hyalinae vesiculaeformes; 4. in foliis papillosis quadratae plures, sed plerumque vix conspicuae. Folia 0—5 nervia. Nervi bini diversi: 1. e basi jam divergentes discreti, in dorso

folii valide callosi et spinae forma e folii lamina dorsali prominentes; 2. deplanati, haud calloso-prominentes; 3. in foliis, cellulis alaribus vesiculaeformibus praeditis, obsoleti, striis binis brevissimis, plerumque vix conspicuis, designati.

*Patria.* Per orbem totum terrarum.

Tribus omnium ditissima, e typis maxime variis composita, difficillima.

Subtribus I. NECKERACEAE.

Peristomium internum ciliis interpositis nullis.

Peristomium externum et internum saepius desunt.

Gen. I. **Rhegmatodon** Brid.

II. p. 204. — *Macrohymenium* C. Müll. — *Leskea* al.

Nomen, a graeca voce *ῥήγμα* *fissura* et *ὀδούς*, dentium internorum rimam longitudinalem (in *R. rufo* autem deficientem!) ex auctore designaturum.

Calyptra *dimidiata*. Peristomium duplex. Externi dentes *brevissimi* trabeculati hypnoidei; interni *in membrana brevi vix carinata tessellata veluti perforata rufescente longissimi* externos longe superantes, *vix carinati*, linea longitudinali hiantes v. integra exarati, remote articulati.

*Patria.* Terrae maris Indici.

a. *Folia uninervia.*

1. **R. orthostegius** Mont. (Ann. d. sc. nat. 1842. p. 248.); *monoicus*; caulis repens vage ramosus, ramis brevibus erectis incurviusculis tereti-filiformibus viridibus, dein rufescentibus, rigidis, parce divisis; folia caulina dense appressa ovato-acuminata, profunde concava, margine latissime revoluta, integerrima, nervo ultramedio carinato viridi, cellulis incrassate grosse ellipticis ad mar-

ginem rhomboidalibus obscure viridibus, utriculo primordiali tenui praeditis; perich. late lanceolato-acuminata longiora vaginantia laxe pellucide reticulata subnervosa; theca in ped. laevi rufescente brevi parum inclinata v. erecta inaequalis oblonga pallida, operc. turgide conico aurantiaco; perist. d. ext. brevissime lanceolati dense et interne maxime costato-trabeculati, igitur veluti ex articulis latiusculis transversis moniliformibus compositi, int. maxime alti late lanceolati, remote articulati, medio hiantes, lutei rugulosi, omnes longe infra orificium oriundi.

*Patria.* Ad corticem arborum in dumetosis Indiae orientalis, circa Kaitie montium Neelgheriensium: Perrottet.

An a sequente revera distinctus?

**2. R. declinatus** Brid. (II. p. 204; 1827.); *monoicus*; *R. orthostegii* simillimus, sed differre videtur: foliis concavis margine haud revolutis, perich. caulinis conformibus, pedunculo apicem versus scabro. †.

Schwägr. Suppl. III. I. 2. t. 204. — *Pterogonium declinatum* Hook. Trans. of Linn. Soc. IX. t. 26. f. 3.

*Patria.* Nepal, in arborum cortice: Buchanan.

b. *Folia binervia.*

**3. R. rufus** C. Müll.; *monoicus*; repens dense cespitosus, ramis subaequalibus ascendentibus crassiusculis subrigidis e viridi rufescentibus nitidulis subflexuosis apice paulisper secundis simpliciusculis parum compressis pin-natus; folia caulina dense conferta, humore erecto-patentia, paullo homomalla, e basi angustiore lanceolato-ovata, obliquiuscule acuminata, profunde concava, subplicata, margine integerrimo inferne reflexo, cellulis grosse ellipticis firmis, alaribus superioribus distinctis paucis parvis, inferioribus majoribus, omnibus flavidis, nervis binis brevissimis obsoletis flavidis; perich. longiora minus cava, basi laxe reticulata; theca in ped. breviusculo rigido crassiusculo laevi purpureo flexuoso erecta v. parum inclinata, e basi substrumosa oblonga, ore latiore, exannulata, fusca,



operculo longe rostrato aequilongo; perist. d. ext. dimidia parte lanceolati dense trabeculati et linea media exarati, subito in cuspidem aequilongam tenuissimam articulata pallidiorem in sicco inflexam producti, int. externos longe superantes, basi angusti, medio dilatati, apice attenuati, lutei laeves, haud hiantes.

*Macrohymenium rufum* C. Müll. Bot. Zeit. 1847. p. 825. — *Leskea acidodon* Mont. Ann. d. sc. nat. 1845. p. 96. t. 5. f. 4? — *L. mitrata* Dz. et Molkb. l. c. 1844. p. 311. — ? *L. rufa* Hsch. Nov. Act. ac. Caes. Leop. XIV. Suppl. II. p. 716.

*Patria.* Java: Blume et Reinwardt; Sumatra: Hb. Lugd. Batavorum; ins. Bourbonis, ad cort. arborum: Hb. Montagn.

Flos masc. in vicinia feminei minutus. Ex insula Java pulcherrimum habemus.

## Gen. II. **Fabronia** Raddi.

Act. Flor. Atti dell Acad. de Scienz. di Siena. Tom. IX. p. 230. — *Campylodontium* Schw. et Dz. et Molkb. — *Anacamptodon* Brid.

In honores *Fabroni* monetæ excudendæ Praefecti Florentini nomen conditum.

*Calyptra dimidiata.* Peristomium simplex vel duplex. Externi dentes sedecim lanceolati infra orificium oriundi membranacei planissimi coriacei fusciduli geminati, linea media perpendiculari et articulis plus minus conspicuis notati rugulosi. Interni cilia sedecim cum dentibus alternantia tenuissima breviora concoloria articulata, in unica specie adhuc observata.

Plantae graciles pulchellae tenerae, colore plerumque velutino-viridi vel sericeo, v. robustiores.

Sectio I. **Eufabronia.** Plantae tenerae v. tenerrimae haploperistomatae, thecis minutis leptodermibus.

### a. *Folia ciliata.*

1. **F. pusilla** Raddi (Act. Florent. l. c.); *monoica*; pulvinuli plus minus densi pusilli molles sericeo-virides;

caulis tenerrimus repens fragilis parce ramosus, ramis erectis curvatis teneris plumose foliosis; folia caulina laxe conferta, *anguste lanceolata*, in acumen longum filiforme flexuosum producta, parum carinata, planiuscula, margine *inferne brevius superne longe inaequaliter stricte sublobate ciliata* nervo tenui viridi infra medium evanido, cellulis mollibus laxiusculis brevibus, utriculo primordiali tenerrimo vel chlorophyllo repletis, viridibus, alaribus planis multis quadratis parvulis granulosis; perich. serrata, vix ciliata, vaginantia oblonga, laxius reticulata; theca in ped. brevi tenerrimo flavido laevi recta minute urceolato-ovalis truncata macrostoma leptodermis fuscidula, opere. hemisphaerico obtuso brevi; perist. dentes sedecim anguste lanceolati introrsum flexi geminati plani fusciduli leviter trabeculati fissiles rugulosi.

Brid. II. p. 170. — Schw. Suppl. I. II. p. 337. t. 99. — *Grimmia inconspicua* Bertol. Amoen. p. 53.

*Patria.* Ex Italia omni mediterranea per Helvetiam Gallicam, ubi prope Genevam legit Schimper, et per Galliam mediterraneam usque ad Hispaniam, praesertim pyrenaicam. Prope Toscanam primus legit Raddi. Truncos arborum praesertim *Oleae Europaeae* habitat. — *Aestate.*

**2. F. macroblepharis** Schw. (Suppl. III. I. 2. tab. 247.); *monoica*; *F. pusillae* simillima; folia caulina *ovato-acuminata*, in pilum breviusculum producta, parum concava, margine ciliis, *folii dimidiam latitudinem fere superantibus filiformibus, continuis, non lobatis, triplo longioribus patentibus* fimbriata, pellucida, pallide viridia, enervia, cellulis elongatis laxiusculis; perich. ovato-acuminata; theca parum longius flavide pedunculata, minute ovata, *basi in exiguam apophysin attenuata*, viridi-badia, dein fusca, opere. conico oblique subulato. †.

*Patria.* Brasilia: Pohl ad ligna putrida in locis non designatis legit.

A *F. pusilla* characteribus explicatis longissime recedens et species pulchella.

3. **F. octoblepharis** Schw. (Suppl. I. II. p. 338. t. 99.); *monoica*; *F. pusillae* simillima, sed differt: statura plerumque majore, foliis lato-ovatis, margine ubique ciliis aequalibus brevibus simplicibus subciliato-serratis, perist. dentibus brevioribus et latioribus.

*F. major.* De Not. Syllab. Musc. p. 85! — *F. ciliaris* Brid. II. p. 171. — *Hypnum ciliare* Brid. Sp. Musc. II. p. 155. — *Pterigonium octoblepharis* Schleich. Crypt. Helv. Exs.

*Patria.* In Helvetiae montosae rupestribus primus legit Roger, dein Thomas et Schleicher. In Italia ad saxa prope Condave in agro Pedemontano: Ferreratti, ad muros agrorum in valle Vegezzo provinciae Novariensis, supra Masera: De Notaris; Valtellina prope Clavennam: Garovaglio.

4. **F. Jamesoni** Tayl. (Lond. Journ. of bot. 1848. p. 197.); *monoica*; caulis abbreviatus laxe cespitosus ramosus gracillimus pallide viridis humilis; folia caulina patentia subsecunda, late lanceolata acuminata, acumine elongato discolori integerrimo, ciliata, basi margine cellulis amplis, superne linearibus, mediotenus uninervia; theca in ped. 4-linearis in apophysin obconicam incrassato subinclinata oblongo-turbinata; perist. d. lanceolati obtusi. †.

*Patria.* Ad arbores m. Pichincha Andium Quitensium, *Neckerae gracillimae* societate: W. Jameson, Dec. 1846.

*F. octoblepharis* ex auctore proxima dicitur.

5. **F. Persooni** Schw. (Suppl. I. II. p. 339. t. 99.); *monoica*; statura *F. pusillae*, colore albide sericeo; rami tenuiores; folia angustissima lanceolato-acuminata stricta, haud piliformia, margine ubique ciliata, ciliis simplicibus tenuissimis inferne longioribus curvatis, apicem versus sensim brevioribus, summo apice denticuliformibus, uninervia, cellulis elongatis angustissimis densis subconflatis vix conspicuis flavidis, alaribus obsoletis; theca in ped. longiusculo rubro erecta minute ovata, subapophysata.

*F. jungermanniioides* Brid. II. p. 169. — *Pterygophyllum jungermanniioides* Brid. mst., haud ante Schwägrichen editum! — *Hypnum coronopifolium* P. B. in Hb. Bridel.

*Patria.* Insulae Bourbonis et Franciae: Bory St. Vincent detexit.

Species memorabilis distinctissima.

**6. F. Hampeana** Sonder (in Hamp. Ic. Musc. t. 13.); *monoica*; *F. pusillae* simillima, sed *glauco-albida*, robustior, mollissima, ramis *subclavatis*, *veluti tomentosa v. lanuginosa*; folia caulina *late lanceolata*, *in acumen simplex capillare producta*, margine ciliis *longis simplicibus capillaribus valde flexuosis fimbriata*, nervo latiore subobsoleto infra medium evanido viridi, cellulis *elongatis laxiusculis teneris pellucidis*, alaribus multis planis quadratis laxis intus granulosis; perich. tenuiora subvaginantia latiora, magis ovata, brevius acuminata, margine dentata; theca longius pedunculata, operculo et peristomio *F. pusillae*.

*F. tomentosa* Hook. et Wils. Ic. Pl. Rar. Hook. t. 739. C. — *F. incana* Tayl. Lond. Journ. of bot. 1846. p. 58.

*Patria.* Nova Hollandia, in truncis *Macrozamia Preissii* Lehm. prope oppidum Perth: Preiss, 29. Jun. 1840, societate *Calymperis latifolii* Hmp. Ad Swan River legit J. Drummond.

b. *Folia dentata.*

**7. F. Gardneriana** C. Müll.; *monoica*; *F. pusillae* simillima; folia caulina ovato-lanceolata, *in acumen breve capillare producta*, carinata, margine *supra basin minute denticulata*, *hic illic superne dente intermixto majore interdum praedito*, nervo ultra medium evanido, cellulis laxiusculis inanibus pellucidis mollibus, alaribus laxe quadratis chlorophyllosis vel pellucidis; perich. vaginantia, intima latiora *apice sinuato-emarginata* nervosa laxe reticulata; theca in ped. brevi flavido erecta minute ovalis, operculo et peristomio *F. pusillae*.

*F. macroblepharis* C. Müll. Bot. Zeit. 1845. p. 107. — *F. polycarpa* Wils. in Musc. Gardner.

*Patria.* Brasilia: Gardner in monte Corcovado, ad Pernambuco et Bahia, ubi Salzmann prius legit.

A *F. octoblephari* notis cursive impressis longe recedit.

8. **F. nivalis** Mont. (Ann. d. sc. nat. IX. 1838. p. 57.); *dioica*; statura *F. octoblephareos*; folia caulina brevius acuminata, margine *parce irregulariter remote et breviter acute dentato*, cellulis pallidis pellucidis, utriculo primordiali tenero repletis; theca angustior ovato-oblonga v. pyriformis, longius pedunculata, operculo convexo *rostrato, rostro tenui incurvo*.

C. icone in D'Orbigny Voyage dans l'Ameriq. merid. p. 107. t. 3. f. 3.

*Patria.* In summis jugis Andium prope Cochabamba prov. Ayopayae (Boliviae) ad nives aeternas, supra terram, alt. 2200' hexapodum: D'Orbigny.

Notis cursive impressis a *F. octoblephari* certe refugit. A *F. secunda* foliis late ovatis aliter dentatis differt.

9. **F. pilifera** Hsch. (Linnaea XV. p. 136.); *monoica*; caulis repens vage ramosus, ramis brevibus ascendentibus; folia caulina arcte imbricata subsecunda, laxa, *ovato-acuminata*, in pilum hyalinum dimidio breviorum quam folium excurrentia, concava, *ultra medium uno alterove denticulo notata*, pellucida amoene viridia, nervo lato laxo concolore supra medium evanido, cellulis laxis oblongis, alaribus laxae quadratis; perich. vaginantia longissime acuminata laxius reticulata, *ciliato-dentata* enervia, subhyalina; theca in ped. bilineari flavido erecta obovata, basi contracta *apophysata* sicca ore dilatato cyathiformis brunnea.

*Patria.* Prom. bonae spei, inter Schiloh et Zwartkey, Windvoogelberg in trunco Encephalarti Fridr. Guilielmi, alt. 5000', 22. Nov. 1832.: Drège. E locis non designatis prom. b. spei sub nom. *F. polycarpae* commun. olim Schwägrichen.

Notis cursive impressis a *F. secunda* longe distat.

10. **F. Abyssinica** C. Müll.; *monoica*; *F. piliferae* simillima, sed folia *latius ovato-acuminata*, acumine brevi,

margine minus dentata, densius reticulata; perich. minus dentata breviora; operculo cupulato, oblique rostellato.

*F. macroblepharis* Br. et Sch. in Musc. Abyss. No. 477, ad rupes prope Demerki a W. Schimper lecta. — *F. octoblepharis* Hmp. in litt. Operc. oblique rostellato.

*F. macroblepharis* Br. et Sch. l. c. No. 466. — *F. Bruchiana* Hmp. in litt. Operc. cupulato oblique mammillato. Locus natalis nobis ignotus.

*F. polycarpa* Br. et Sch. l. c. No. 443. — *F. Schimperiana* Hmp. in litt. Operc. conico obliquo acutiusculo. Locus natalis nobis ignotus.

*F. curvirostris* Hmp. in litt. Inter *Bryum leptophyllum* Br. et Sch. in prov. Schoata lectum, sub No. 451 editum. Operc. acute curvirostro.

*Patria.* Abyssinia, ad rupes prope Demerki, 14. Aug. 1838. et in prov. Schoata 15. Juli 1838.: W. Schimper.

**11. *F. secunda*** Mont. (Ann. d. sc. nat. 1842. p. 251.); *monoica*; pulvinuli pusilli sordide virides; caulis tenerrimus repens, ramis tenerrimis capillaribus subsecundifoliis; folia caulina erecto-conferta, madore patentia, anguste lanceolata, longe substrictè piliformi-acuminata, perfecte carinata, margine minute denticulato, nervo infra medium evanido obsoleto, cellulis *F. pusillae*; perich. caulinis minor, magis vaginantia; theca *F. pusillae*, operculo planiusculo mammillato.

*Patria.* Montes Neelgherienses, in sylvis humidis circa Ootacamund truncicola: Perrottet.

**12. *F. curvirostra*** Doz. et Molkb. (Ann. d. sc. nat. 1844. 2. p. 304.); *monoica*; *F. pusillae* simillima, tenerrima, sordide viridis; folia caulina parvula, ovato-acuminata, acumine breviusculo, margine superne aequaliter minutissime vel vix denticulata, nervo et cellulis *F. polycarpae*; perich. similia teneriora; theca breviter flavide pedunculata erecta minute ovalis subapophysata, operc. conico obliquo rostellato; perist. dentes abbreviati, fissura media carentes, obsolete trabeculati, gyrato-rugulosi fusciduli.

Cum icone in Musc. Archip. Ind. t. 21.

*Patria.* Java, ad basin arborum montis Gédé, in fissuris corticis: Zippelius; in monte Tjikoerai: Korthals.

A *F. secunda* characteribus laudatis differt.

**13. F. Australis** Hook. (Musc. Exot. t. 160.); *monoica*; habitus et folia *F. curvirostrae*, sed folia *latiora*, theca *exapophysata*, costis *pellucidis alaeformibus*, basin *contractam etiam tegentibus luteis praedita*, operculo *convexo mammillato et peristomii dentibus lanceolatis fissura longitudinali instructis*. †.

Brid. II. p. 171. — Schwägr. Suppl. III. I. 2. t. 247.

*Patria.* Ad sinum King George dictum Novae Hollandiae: Menzies 1791. legit.

c. *Folia integra.*

**14. F. polycarpa** Hook. (Musc. Exot. t. 3.); *monoica*; *F. pusillae* simillima, *tenerrima*, *pallide viridis*; folia caulina *ovato-acuminata*, *parvula*, *acumine brevi*, *integerrima*, *subcarinata*, *nervo tenui subobsoleto*, cellulis *brevibus laxiusculis viridibus*, plus minus *pellucidis* et *utriculo primordiali tenerrimo praeditis*, *alaribus quadratis*, *intus granulosis*; *perich. similia*; *theca*, *operculum et perist. F. pusillae*.

Brid. II. p. 172. — Schwägr. Suppl. III. I. 2. t. 247.

*Patria.* In umbrosis montis Quindiu Novo-Granadae, juxta la Quebrada de Toche in alt. 6300 pedum, ad radices *Quercus Granatensis*: Humboldt et Bonpland. Venezuela, in montibus nivosis prov. Meridae: Moritz.

Folia caulina et perich. in speciminibus Meridensibus interdum hic illic minute denticulata.

**15. F. Gueinzii** Hmp. (in litt.); *dioica*; *robusta*; *cespites lati prostrati duriusculi nitidissime virides*; *caulis longe repens filiformis flexuosus vage ramosus*, *ramis subpinnatim dispositis brevibus amoene viridibus apice flavidulis*, *folia caulina erecto-conferta*, *madore patentia*, *late lanceolata*, *in acumen elongatum capillare summo apice tantum simplex producta*, *integerrima subcarinata*,

nervo supra medium evanido viridissimo, basi lato, cellulis amoene viridibus sublongis teneris mollibus chlorophyllosis dein pellucidis, alaribus permultis laxe quadratis chlorophyllosis, dein pellucidis; perich. magis vaginantia, tenuiora et laxius reticulata pellucida brevius acuminata, apice interdum parce dentata; theca in ped. breviusculo rufo tenero erecta ovalis, ore madore minori.

*Patria.* Prom. bonae spei: Gueinzius, pharmacopola Halensis, legit.

Operculum et peristom. non vidimus. Flores masc. numerosi turgide gemmacei.

Sectio II. **Anacamptodon.** Plantae robustae diploperistomatae, thecis robustis carnosulis.

A *Fabroniae* genere ut *Orthotricha* haploperistomata a congeneribus suis caeteris recedens, methodo naturali nunquam genus discernendum.

**16. F. splachnoides** C. Müll.; monoica; laxe pulvinata, velutino-viridis, robusta; caulis longe repens homomallifolius flexuosus, ramis brevibus flaccidis patentifoliis; folia caulina laxe imbricata, late ovato-lanceolata latiuscule acuminata, integerrima, carinata, margine erecto v. parum involutaceo, nervo crasso viridi supra medium evanido, cellulis ampliusculis pellucidis brevibus inanibus v. utriculo primordiali instructis, apice robustioribus viridiusculis, basi tenerioribus, alaribus saepe obsoletis quadratis paucissimis; perich. teneriora, magis vaginantia; theca in ped. ascendente crasso flavido stricto erecta turgide ovali-oblonga carnosula pallida, dein fusca, operc. conico subturgide rectiuscule acuminato; perist. d. ext. sedecim latiuscule longe lanceolati acuti geminati, linea longitudinali laevi exarati et laeviter articulati, fusciduli rugulosi introrsum inflexi, cilia sedecim tenuissima breviora fusca dense articulata.

*Anacamptodon splachnoides* Brid. Mant. Musc. p. 136. t. 2, et Br. univ. II. p. 225. — *Neckera splachnoides* Schw. Suppl. I. II. p. 151. t. 82. — *Orthotrichum splachnoides* Fröhl. in Brid. Sp. Musc. II. p. 4.



*Campylodontium hypnoides* Schw. Suppl. III. I. 1. t. 211! forma laxior.

*Patria.* In regionibus calidioribus Europae atque Americae septentrionalis rarissime occurrens et truncos arborum, praesertim fagorum, libenter vulneratos humidus habitans. Prope Elvacum Suevorum in truncis abietum detexit Fröhlich; circa Coloniam Agrippinam in fagis: Sehlmeier; in tractu Odenwald: Nees ab Esenbeck; pr. Monachium et in monte Sveniak prope Flitsch et in valle Mogenzathal c. Breth in alpibus Julicis, alt. 3000 pedum: Sendtner; in Austria pr. Steyr: Sauter et pr. Weidlich: Welwitsch; in trunco *Carpini Betuli* unico Pyrenaeorum in „Vallée du Lys” in zona montosa superiore: Spruce. — In Pensylvania legit Mühlenberg; in Nova Caesarea: Torrey; pr. Ebenezar: Beyrich. — *Junio.*

Planta pulcherrima. Flores masc. in vicinia feminei turgidi, fol. ovato-acuminatis concavis parvulis.

Sectio III. **Campylodontium** Dz. et Molkb. in Musc. Archip. Ind., non Schwägr. — Caulis densifolius crassus, robustus. foliis plicatis.

**17. F. striata** C. Müll.; dioica; cespitosa laete viridis; caulis arcuatim prorepens, dense foliosus, ramulis brevibus simplicibus crassiusculis obtusis curvatis vage ramulosus; folia caulina dense imbricata, subhomomalla, anguste ovato-lanceolata, breviuscula, profunde plicata, margine basi revoluta, subintegerrimo, nervo unico tenuissimo, infra medium evanido, ob plicam indistincto viridi, cellulis elongatis angustiusculis pellucidis mollibus virescentibus, alaribus laxe quadratis pellucidis intus granulosis; perig. vaginantia lanceolata, magis acuminata acuta, erecta; theca in ped. longiusculo luteo-rubro laevi erecta oblongo-cylindrica, microstoma, operc. brevi conico obtusiusculo, calyptra laevi; perist. simplicis dentes externi, breviusculi late lanceolati, infra marginem oriundi, firmi coriacei, striatuli, linea mediana laevissima notati, laeviter trabeculati, tenues, siccitate recurvi, humore inflexi.

*Campylodontium striatum* Dz. et Molkb. Musc. Archip. Ind. p. 123. t. 39.

*Patria.* Java, in monte Simpai ad arborum truncos: Korthals.

Fructum non vidimus quidem, e peristomio tamen delineato et descripto muscus huc certe pertinere videtur.

### Fabronia delenda.

**F. ? Mariana** Schw. in Voy. autour du Monde par M. L. de Freycinet. Bot. Par. 1826. p. 227. *Bartramia uncinata* est.

### Gen. III. Neckera Hdw.

Fund. Musc. II. p. 93. — *Braunia* Br. Europ. — *Hedwigidium* ib. — *Haplo hymenium* Dz. et Molkb. — *Entodon* C. Müll. — *Dichelyma* Myrin. — *Leucodon* Schw. — *Asterodontium* Schw. — *Antitrichia* Brid. — *Sclerodontium* Schw. — *Hedwigia* Hook. — *Harrisonia* Spreng. et al. — *Leptodon* Web. — *Lasia* Brid. — *Isothecium* al. — *Rhystophyllum* Ehrh. — *Climacium* Mohr. — *Pterigynandrum* Hdw. — *Leptohymenium* al. — *Pilotrichum* P. B. ex parte. — *Leskea* antiq. — *Hypnum* antiq. — *Fontinalis* L. Hedw. partim.

*Calyptra dimidiata.* Peristomium simplex v. duplex. Externum: dentes sedecim aequidistantes v. saepius plus minus geminati, lanceolato-acuminati, transversim plus minus distincte trabeculati, linea longitudinali exarati, infra orificium oriundi, e lamina duplici compositi, saepius carnosi albidi v. cornei fragiles crocei, laeves v. rugulosi, interdum in crura plura dilacerati. Internum: dentes similes v. ciliaeformes capillares, solidi v. carinati et per-tusi seu hiantes, basi liberi v. in membrana plus minus exserta haud vel vix carinata positi, appendicibus transversalibus conflatis saepius omnino v. partim cancellati, albidi flavidi crocei v. purpurei, laeves v. rugulosi, interdum aborti, ciliolis interjectis nullis.

*Patria.* Per totum orbem terrarum.

Peristomia maxime variantia typice nunquam divergunt et genera bene distincta plura nunquam constituunt. *Fabroniae* adeo et *Rhegmatodontes*, congeneribus pluribus transientibus a peregrinatoribus detectis, melius forsitan ad *Neckeras* pertineant; nam peristomia sua notas distinguendi graves jam nunc non praebent. *Fabroniae* sectionem naturalem pulcherrimam, post *Leptohymenium* sedem optime tenentem, constituent; *Rhegmatodontes* sectionem *Leptohymenii* haud male orrent. — Congeneres plurimi ob ramos fertiles longiores cladocarpici et columella plerumque longius exserta praediti observantur.

Sectio I. **Euneckera.** Caulis *complanatus* distiche foliosus, ascendens, *pinnatim ramosus*; folia transverse undulata v. plana, *quadrifarie disposita*, *ligulate oblonga*, plus minus asymmetrica, laevia 1—2 nervia, elliptice areolata. Theca exannulata, exserta v. immersa.

*Distichia* Brid. II. p. 238.

*Patria.* Per orbem terrarum totum.

Subsectio I. **Leiophyllum.** Folia laevia, haud transversim rugulosa.

a. *Folia uninervia.*

1. **N. Javanica** C. Müll.; *dioica*; caulis secundarius elatus, basi longa nuda, foliis lanceolatis acuminatis squamaeformibus integerrimis obsoletinervibus dense obtectus, ramosissimus, ramis remotis cauliformibus v. densis tenuioribus 2—3 pinnatus, pallidus; folia caulina magna, ramea minora, omnia laxè imbricata, oblique inserta, e basi *latiuscula* sensim dilatato-ligulata, sed apice grosse excise serrata, planiuscula, nervo tenui pallido ad medium producto, cellulis pallidis incrassate ellipticis, *alaribus utrinque nervi amoene ventricose impressis badiis* minutis incrassatis; perich. squarroso-reflexa, e basi vaginante longe tenuiter acuminata integerrima obsoletinervia; theca in ped. breviter exserto ovalis fusco-badia nitida urceolata; perist. elongati d. ext. longe lanceolato-acuminati, inferne densius articulati et rugulosi obscurio-

res, linea media obsoleta exarati, albidi, int. aequilongi carinati latiusculi lutei medio late hiantes, in membrana breviuscula sulcata lutea positi.

*N. dendroides* Hsch. et Reinw. in Nov. Act. Acad. Caes. Leop. XIV. II. Suppl. p. 714.

*Patria.* Java.

A *N. decomposita* simillima notis cursive impressis primo momento distinguitur.

**2. *N. decomposita*** C. Müll.; caulis repens; divisiones erectae 2—3 unciales, bi-vel tri-pinnatae dendroideae veluti frondosae, inferne nudae et foliolis squamaeformibus remotis obtectae, lutescentes; folia caulina magna, ramea minora, omnia laxè imbricata, oblique inserta, e basi angusta sensim dilatato-ligulata, sed apicè grosse excise serrata, planiuscula, nervo tenui pallido ad medium producto, cellulis pallidis incrassate ellipticis, *alaribus haud conspicuis*.

*Pterygophyllum decompositum* Brid. II. p. 764. — *Leskea Omalia decomposita* Brid. Hb. — *Hypnum fasciculatum* Desv. in litt. ad Bridel.

*Patria.* Hispaniola: Hb. Desvaux.

Sterilis sola nota quidem, sed tamen a *N. Javanica* proxima caractere laudato certe distans.

**3. *N. Australasica*** C. Müll.; *dioica*; *N. Javanicae* simillima, sed folia caulina oblongo-ligulata serrato-dentata et *ramea ovato-rotundata*, theca magis oblonga.  $\frac{1}{4}$ .

*Climacium neckeroides* Brid. II. p. 276. — *Neckera dendroides* Hook. Musc. Exot. t. 69.

*Patria.* Insula Owyhee Australiae: Menzies 1793.

**4. *N. leucocaulon*** C. Müll. (Bot. Zeit. 1847. p. 827.); *dioica*, ramosissima; rami ascendentes dendroidei compressi; caulis inferne nudus et foliis albidis dense imbricatis *latissimis* vaginanti-squamaeformibus *breviter acutis* evanidinervibus arctissime obtectus, superne ramis *dichotome divisis attenuatis longiusculis*; folia late elliptico-oblonga, basi subobliqua, *caviuscula*, *marginè inferne re-*

*voluta apice serrulato, cellulis brevibus angustis subincrassatis mollibus viridiusculis.*

*N. dendroides* Mont. in D'Orbigny Voy. Vol. VII. 2. p. 110, in Boliviae sylvis humidis ad cort. arborum secus rivum Icho dictum in terra nationis Yurucari lecta?

*Patria.* Chile: Pöppig, Coll. Pl. Chil. III. No. 270 (48), in truncis sylvarum opacarum inter Antuco et Rio Rucuë m. Nov. lecta.

A *N. Javanica* et *Australasica* similibus notis laudatis longe differt, sterilis tantum nota.

b. *Folia binervia.*

5. ***N. complanata*** Hüb. (Muscol. Germ. p. 576.); *dioica*; caulis secundarius ascendens tener anguste complanatus breviter pinnatus nitidissimus viridis v. lutescens; folia caulina dense distichacea, late ovato-oblongo-ligulata, breviter acuminata, parum asymmetrica, planissima, basi vix auriculata, subintegerrima, margine erecto, nervis binis tenuissimis pallidis brevibus, cellulis ellipticis v. anguste linearibus, basi luteis, superne pallidissimis, mollibus; perich. cylindrum angustissimum exsertum sistentia, convolutaceo-lanceolato-acuminata, longius et laxius reticulata, enervia, paraphyses permultas includentia; theca in ped. longiuscule exserto flavido laevi erecta ovalis microstoma badia, exannulata, operc. oblique aciculari; perist. d. ext. breviter lanceolati lutescentes fragiles, linea media et trabeculis laevibus praediti, int. irregulares rugulosi externis adglutinati fugacissimi.

*Leskea Omalia complanata* Brid. II. p. 327. — *L. complanata* Hdw. Fund. Musc. II. p. 93. t. 10. f. 62—65. — *Hypnum complanatum* L. Sp. Pl. p. 1588. — *H. ornithopodioides* Scop. Fl. Carn. p. 150. — *Hypnum pennatum compressum et splendens*, capsulis ovatis. Dill. Musc. p. 268. t. 34. f. 7.

*Patria.* Per totam Europam ad truncos arborum et fruticum sylvestrium et campestrium umbrosarum humidarum, rarius ad rupes et muros. — Vere, sed raro fertilis.

6. **N. leiophylla** Gumbel (in schedulis ad Sendtner); *N. complanatae* simillima, sed *tenerrima*, folia *minora subrotundato-ovata, obtusa vix acuminata*, cellulis *magis rotundis*.

*Patria.* Draga d'Orlich prope Tergestum: Sendtner. Hb.

Sterilem tantum vidimus. Ex habitu inter *N. complanatam* et *Omaliam trichomanoidem* medium tenet.

7. **N. glabella** Sw. (Fl. Ind. Occ. III. p. 1782.); caulis secundarius late complanatus planissimus *rigidissimus nitidus, in ramos breviusculos apice tenues flagelliformes* inordinate divisus; folia caulina dense imbricata, *haud rugosa, planissima, e basi angusta asymmetrico-spathulato-ligulata rotundate obtuso-acuminata, apice summo serrato*, nervis binis brevibus, cellulis ellipticis mollibus chlorophyllosis; perichaetia perpauca, foliis externis et internis *N. distichae*; theca subimmersa ovata, operculo cuspidato.

*N. Distichia glabella* Brid. II. p. 342. — *Leskea glabella* Hdw. Sp. Musc. p. 235. t. 59. — *Hypnum glabellum* Sw. Prodr. Fl. Ind. Occ. p. 140.

*Neckera Patagonica* Brid. l. c. — *Pilotrichum Patagonicum* P. B. Prodr. p. 83. — *Sphagnum pennatum, planum*. Dill. Musc. p. 249. t. 32. f. 7; e patria et icone Dilleniana species diversa videtur!

*Patria.* Jamaica, ad truncos arborum in montibus: Swartz. Mexico, circa Xalapa: Schiede et Deppe.

Fructus sed imperfectos detector solus vidit. A *Pilotricho undulato* haud dissimili notis laudatis toto coelo differt.

8. **N. Trachyloma** C. Müll.; *dioica?* caulis repens; ramus primarius late complanatus, erectus digitalis v. palmaris *rigidus* basi subnudus, apice longiusculo indiviso, medio ramulis erecto-patentibus distichis inaequalibus longiusculis obtusis complanatis simplicibus pinna-tus; folia caulina majuscula pallide viridia nitentia, bifariam imbricata, late ovata obtusa, acumine brevi, *serrulata* subnervia *indistincte striata v. plicata*; perich.

multo minora, serrulata, ext. ovata breviter acuminata concava, int. longe acuminata vaginata angusta; theca in ped. brevi *elongate cylindracea turgida* intense fusca brunnescens erecta, operc. *subulato* theca plusquam dimidio breviori; perist. d. ext. longi filiformes transversim striati rubri, int. setacei flavi capillares hic illic denticulati, in membrana brevi flavida positi. †.

*Neckera planifolia* Hook. Musc. Exot. t. 23.

*Patria.* In sinu Dusky Bay dicto: Menzies 1791.

*N. planifoliae* simillima, et characteribus laudatis prorsus differt. — An folii structura cum illa *N. planifoliae* conveniat, latet.

9. ***N. planifolia*** Hdw. (Sp. Musc. p. 206. t. 48.); *dioica?* *N. Trachylomati* simillima, sed *mollis* et rami primarii usque ad apicem pinnati; folia caulina *implana, haud plicata, mollia*, apice magis quam basi concava, sublutescentia nitida, margine erecto *subdenticulato*, ad basin parum revoluta, nervis binis brevibus obsoletis, cellulis subviridibus *mollibus*, longiusculis angustis, alaribus permultis laxe quadratis pellucidis, intus grosse granulosis, planiusculis; theca in ped. *perbrevis apice arcuato* rubro erecta *turgide majuscule oblonga macrostoma*, operc. *conico* rubro.

*Trachyloma planifolium* Brid. II. p. 278, ex parte.

*Patria.* Ex insulis Australibus habuit Hedwig.

Fructum non vidimus.

#### Species incertae sedis.

1. ***Omalia Besseri*** Lobarz. (in Haidinger Naturw. Abhandl. I. p. 48. 1847.); *dioica*; cespites plani densi tenerrimi, homomalle radiantes; caulis filiformis repens 1—2 pinnatim divisus complanatus, ramis strictis tenerimis obtusis v. filamentosis; folia caulina disticha orbiculato-elliptica, ramea late lanceolata, glaberrima absolute enervia, integerrima; perich. late linearia cuneato-truncata argute serrulata; perig. lanceolata concava subulato-apiculata. †.

*Patria.* Ad saxa arenosa humidiuscula umbrosa sylvatica agri Podolici Leopoliensis, ibidem in fagetis pago Lisienice vicinis: de Łobarzewski 1841. m. Junio raram et sterilem legit. In promontoriis subalpinis Austriae inferioris, scilicet in convallibus amoenissimis, Quercetis, Fagetis, sylvisque *Pini Austriacae* vestitis, ad occidentem thermarum Baaden sitis, ubi ad arbusculae cujusdam truncum, m. Septembri anni 1844 semel cespitulum legit Dr. Aloisius Putterlik.

Auctor c. *Hypno trichomanoide*, *Webbiano* et *Neckera complanata* comparavit. E descriptione cum *N. leiophylla* partibus multis convenit, sed folia absolute enervia descripta sunt, quare cum illa haud jungamus. *Neckera* vera videtur.

2. **Omalia lentula** Wils. (Ann. and Mag. of Nat. Hist. XX. 1847. p. 379.); caulis distiche subbipinnatim ramosus 2—3 uncialis, ramis complanatis brevibus; folia caulina disticha ovato-falciformia acuminata serrulata enervia nitidissima laete viridia tenuissime areolata; perich. lanceolato-attenuata. †.

*Patria.* Jamaica, ad Port Royal, arborea? G. M'Nab legit.

*Hypno trichomanoidi* et *Neckerae glabellae* ex auctore simillima. Sterilis tantum observata.

Subsectio II. **Rhystophyllum** Ehrh. Crypt. Exs. No. 97. — Folia transversim rugosa.

A. *Theca immersa.*

a. *Folia uninervia.*

10. **N. disticha** Hdw. (Musc. Fr. III. p. 58. t. 22.); *hermaphrodita*; caulis longe repens; divisiones elongatae decumbentes subplanissimae, irregulariter pinnatae pallide virides, parum rugifoliae tenerae flaccidae; folia caulina laxè imbricata, e basi asymmetrica vix auriculata et vix coarctatâ late ligulata, truncato-obtusissima, apice rotundata parum excavata, margine erecto integro v. parum crenulato, nervo unico tenui elongato saepe subfurcato,



cellulis rotundatis v. *basi angustissime linearibus, teneris haud conflatis pallescentibus*; perich. ext. *minuta, squarrosulo-reflexa, vaginanti-ovata, subito breviter acuminata, pallidissima, interna: paraphyses in foliola lineari-subulata longa subtrichoidea loriformia apice subdenticulata transita; theca subemersa minute urceolata v. oblongo-cylindracea pallida, dein fusca nitida, vix annulata, operc. conico subulato obliquo, calyptra conica dimidiata glabra, perist. ext. dentes angustissime lanceolato-subulati, linea media exarati, rugulosi pallidi, nodosiuscule articulati, int. aequilongi simillimi ad basin usque fissiles, haud carinati.*

*Daltonia disticha* Arn. Disp. p. 54. — *Neckera Distichia retusa* Brid. II. p. 243. — *Pilotrichum distichum* P. B. Prodr. p. 83. — *P. truncatum* P. B. Prodr. p. 83 c. specie praecedente omnino convenit et patria (Oware Africae) forsan commutata est. — *Fontinalis disticha* Sw. Prodr. Fl. Ind. Occ. p. 138.

*Patria.* Per Antillarum insulas et oras vicinas, *Pilotricho undulato* saepe consociata, loca eadem habitans. — *Junio ad Augustum.*

11. **N. fimbriata** Harv. (in Hook. Ic. Pl. Rar. t. 21. f. 4.); *dioica*; caulis repens, secundarius longe pendulus, flexuosus, in ramulos breves pinnatim dispositos v. longiores dichotomos lutescentes nitidos irregulariter pinnatim divisus, *gracilior, subturgide distiche foliosus*; folia caulina laxissime imbricata, humore patentissima, brevia, e basi *maxime auriculato-constricta angustà late ovato-ligulata obtusa, brevissime acuminata, rugulosa, caviuscula, margine erecto apice eroso, nervo ante apicem evanido subtenui, cellulis maxime incrassatis grosse rotundatis, basi magis oblongis, alaribus vix ullis; perichaetia turgida, foliis multis subulatis angustissimis veluti fimbriata; theca immersa ovalis parvula, operc. conico-rostrato.*

Cum descript. in Lond. Journ. of bot. 1840. p. 13.

*Patria.* Nepal: Wallich.

Fructum et calyptram non vidimus.

12. **N. Moritzii** Hmp. (Linn. XX. p. 91.); *dioica*; caulis repens, divisiones elongatae, dense pinnatim ramosae, late complanatae; rami *plus minus elongati iterum pinnulati*, splendentes rugifolii, apice gemmaceo-incrassati; folia caulina laxe conferta erecto-patentia, parum rugosa, e basi asymmetrica late ovato-acuminata integerrima, caviuscula, margine erecto, nervo unico tenui fuscescente ad medium evanido, cellulis *anguste linearibus elongatis parietibus interruptis praeditis*, viridibus, *basilaribus badiis*, alaribus *laxiusculis badiis*; perich. elongate late lanceolato-acuminata stricta pallida, basi laxius reticulata, interna magis vaginantia, longinervia; theca immersa turgide ovalis, exannulata, operc. conico rostrato obliquiusculo, calyptra laevi fusca pachydermi; perist. d. ext. *angusti elongati pallidi laeves fragiles remote articulati irregulariter inter sese anastomosantes, flexuosi angulati*, interni *similes, sed tenerrime membranacei fugacissimi hyalini*.

*Patria.* Venezuela, Colonia Tovar Germanica, alt. 5500 pedum: Moritz.

*N. acutifoliae* simillima et peristomio *Prionodonti denso* affinis.

13. **N. acutifolia** Brid. (II. p. 757. sub *Distichia*.); *N. Moritzii* simillima e foliis cum hacce specie omnino convenit, fructu autem adhuc ignoto certe distabit.

*Patria.* Insula Bourbonis: DesvauX in Hb. Brideliano.

14. **N. Menziesii** Hook. (in Drumm. Musc. Americ. No. 162.); caulis anguste complanatus elatiusculus amoene lutescens, ramulis tenuissimis attenuatis patentibus brevibus simplicibus pinnatus; folia caulina e basi haud auriculata *symmetrico-ligulato-oblonga, obtusate acuminata, perfecte concava*, margine inferne *anguste revoluta*, apice *minute denticulata*, nervo unico tenui longiusculo, *superne saepe furcata*.

*Patria.* America septentrionalis, Rocky-Mountains, ad rupes, sed sterilis: Drummond.

Vestigiis indicatis a *N. pennata* longe recedit.

b. *Folia binervia.*

α. *Folia obtusa.*

15. **N. Lepineana** Mont. (Ann. d. sc. nat. 1848. X. p. 107.); *dioica?* *Pilotricho undulato* simillima, sed folia nervis binis brevibus inaequalibus instructa; perich. interna perfecte late convoluta, paraphyses filiformes tubulosas paucas includentia; theca oblique rostrata, calyptra dimidiata obtecta; perist. d. ext. longe lanceolato-subulati remote trabeculati, linea longitudinali exarati, rugulosi albidī, int. aequilongi amoene perforati albidī rugulosi, remote articulati.

*Neckera undulata* Mont. Voy. Pôle Sud, Crypt. p. 318. p. parte.

*Patria.* Taiti, ad truncos arborum decumbentem legit Lepine.

16. **N. obtusifolia** Tayl. (Lond. Journ. of bot. 1848. p. 193.); *dioica?* caulis prostratus longissimus pinnatus, pinnis patentibus complanatis pallide luteo-viridibus; folia distichacea imbricata erecto-patentia concava oblongo-acinaciformia obtusa, margine basi incurva, integerrima, summo apice incurvo, brevissime apiculato, enervia (?), siccitate subplicata; perichaetia subhomomalla, foliis ext. minutis, int. concavis acuminatis; theca erecta ovata immersa, operculo inclinate rostrato; perist. d. int. capillares et plerumque brevissimi in membrana brevi positi. †.

*Patria.* Monte Pichincha Andium Quitensium; W. Jameson 1827.

*N. distichae* simillima, sed latius complanata, foliis minus obtusis apiculatis enervibus et theca subimmersa distat. Folia obsolete binervia putamus.

17. **N. intermedia** Brid. (Mant. Musc. p. 137.); a *N. pennata* foliis obtuse rotundatis differt.

*Daltonia intermedia* Arn. Disp. p. 54. — *Neckera Distichia intermedia* Brid. II. p. 241.

*Patria.* In Teneriffae insulae sylvis prope Laguna in arboribus: Rudley.

Sterilis hucusque nota, tamen a *N. pennata* e spec. auth. diversa videtur.

β. Folia acuminata.

18. *N. pennata* Hdw. (Musc. Fr. III. p. 47. t. 19.); *monoica*; caulis primarius longe repens, secundarius altiusculus late complanatus valde graciliter pinnatus, pallide viridis; folia caulina dense conferta distichaceo-imbricata, e basi parum coarctata minute auriculatâ asymmetrico-lato-oblonga breviter acuminata, caviuscula subintegerrima, parum undulata, pallida, incrassate lineari-areolata; nervis binis brevibus tenuibus inaequalibus, margine erecto; perich. vaginantia longe lanceolato-acuminata, basi laxius reticulata; theca immersa ovalis, exannulata, operc. conico obliquo, calyptra dimidiata glabra pallida; perist. d. ext. elongati anguste lanceolato-subulati nodosiuscule trabeculati, linea media obsoleta praediti albidi fragiles laeves, int. plerumque tenerrimi brevissimi fugacissimi laeves, perfecti aequilongi carinati remote articulati.

*Daltonia pennata* Arn. Disp. p. 54. — *Neckera Distichia pennata* Brid. II. p. 238. — *Cryptopodia pennata* Röhl. Deut. Fl. III. p. 82. — *Pilotrichum pennatum* P. B. Prodr. p. 83. — *Hypnum pennatum* Gmel. Syst. Nat. II. p. 1340. — *Weisia pennata* Schrank. Baiers. Fl. II. p. 445. — *Fontinalis pennata* L. Sp. Pl. p. 1371. — *Sphagnum pennatum*, undulatum, vagina squamosa, Dill. Musc. p. 250. t. 32. f. 9.

β. *tenera*; tenerior oligocarpa, ramulis in flagella tenuissima elongata flexuosa viridia productis, folia e cellulis diaphanis laxiusculis haud conflatis composita. *N. oligocarpa* Bruch. in schedulis! — *N. intermedia* Thedenius ex Ångström!

*Patria.* Per totam Europam, sed passim, in sylvis ad arbores, rarius ad rupes umbrosas et per terras mediterraneas ad Cap. b. spei producta. In America septentrionali haud rara videtur. Var. β. in Suecia, Lapponia et Finlandia. — Vere, sed rarius fertilis.

18. **N. Ehrenbergii** C. Müll.; *monoica*; *N. pennatae* simillima, sed folia caulina *marginē basilari parum revoluta, basi nec coarctata, nec auriculata*, distinctius denticulata; perich. in acumen *longissimum distincte denticulatum valde rugulosum producta*; perist. d. ext. *late lanceolati robusti, haud fragiles, hyalini*, linea longitudinali distincta exarati, perfecte trabeculati, laeves, *int. externis multo breviores*, in membrana brevissima positi, *basi late apicem versus sensim angustius articulati, articuli densi basi veluti rotundato-serrati superne perforati hyalini*, laeves.

*N. remota* Schimp. in Hb. Schlechtendal.

*Patria.* Mexico: C. Ehrenberg.

20. **N. Hornschuchiana** C. Müll.; *monoica*; *N. pennatae* simillima, sed folia basi *marginē parum revoluta, haud coarctata*, subintegerrima; perich. latissime lanceolata longe acuminata vaginantia, acumine *latiusculo subtorto subloriformi denticulato*; perist. d. ext. *N. Ehrenbergii*, *int. e membrana brevissima externos aequantes capillares, basi tantum carinati* laeves.

*N. pennata* Hsch. in Musc. Mexic., a Deppe et Schiede lectis, No. 1090.

*Patria.* Mexico: Deppe et Schiede.

21. **N. remota** Br. et Sch. (Musc. Abyss.); *monoica*; *N. pennatae* simillima, sed longissima, folia caulina basi *nec coarctata, nec auriculata, marginē anguste revoluta*, cellulis anguste linearibus *nec incrassatis, nec conflatis, sed mollibus*; perist. d. ext. longe lanceolato-subulati, nodosiuscule articulati, *lutei tenerrime rugulosi*, linea longitudinali obsoleta exarati, *int. parum breviores, molles, linea media vix conspicua notati, igitur vix carinati*, remote articulati *lutei, tenerrime rugulosi*.

*Patria.* Abyssinia: W. Schimper.

22. **N. scabridens** C. Müll. (Bot. Zeit. 1847. p. 828.); *monoica*; *N. pennatae* simillima, sed operculum longe oblique rostratum, dentes perist. externi longissimi *latius-*

*culo-lanceolati subulati rugulosi, linea media subsecedente fissiles, remote laeviter trabeculati, haud fragiles, int. aequilongi rugulosi subsecedentes.*

*Patria.* Chile australis, in truncis sylvarum umbrosarum ad Antuco: Pöppig 1828. m. Novbr. legit.

**23. N. Urvilleana** C. Müll.; *caulis elongatus anguste complanatus, folia e basi longiuscule coarctata majus auriculata oblongo-acuminata, superne denticulata, distincte concava subcymbiformia, e cellulis elongatis angustissimis, parietibus interruptis instructis, composita.*

*N. Distichia pennata*  $\beta$ . *denticulata* Brid. II. p. 240.

*Patria.* Polynesia, in Otaheiti et Ualan, Ile Strong, Jun. 1824.: Dumont d'Urville.

A *N. pennata* notis laudatis longe distans, sed sterilis tantum nota.

**24. N. angustifolia** C. Müll. (Bot. Zeit. 1847. p. 828.); *monoica; caulis repens; divisiones humiles parce irregulariter pinnatae, rami pro plantulae exiguitate longi, lati sordide virides, apice vix incurvi; folia caulina dense imbricata, sicca et madefacta latus unicum spectantia, igitur subinflectentia, e basi vix asymmetrica longe anguste oblongo-lanceolata, subplanissima, valde rugulosa, superne crenulata, nervis binis inaequalibus longiusculis, cellulis conflatis longiuscule ellipticis; perichaetia falcata cauli arcte appressa igitur difficile conspicua, foliis longe latiuscule acuminatis concavis, apice falcatis elongate densissime reticulatis; theca immersa breviter urceolata, dentibus externis brevibus latiuscule lanceolatis laevibus fuscidulis teneris, laeviter articulatis et linea media obsoleta praeditis.*

*Patria.* Mexico: Hb. Miquel.

Ab omnibus congeneribus characteribus explicatis differt. Calyptra, operculum et perist. internum non vidimus.

B. *Theca exserta.*a. *Folia uninervia.*

25. **N. exserta** Hook. (in Schw. Suppl. III. I. 2. t. 244.); *monoica*; caulis secundarius humilis tener anguste complanatus, ramis *paucis inaequaliter longiusculis* subsimplicibus pinnatus, pallide viridis; folia caulina *e basi valde auriculato-coarctata reflexa et inde dilatata asymmetrico-angustato-ligulata truncato-obtusata, vix acuminata*, valde rugosa, planiuscula, nervo unico tenui viridi ultra medium producto, margine erecto subintegro, cellulis minute pellucide ellipticis mollibus; perich. *perpauca angustissime lanceolato-ligulata, paraphyses longiuscule exsertas cellulosas includentia*, pallidiora teneriora; theca breviter exserta tenella parva anguste cylindraco-oblonga, exannulata, brunnescens, operc. conico oblique rostellato; perist. d. ext. brevissime lanceolati angusti teneri lutei, trabeculis crassiusculis et linea longitudinali praediti laeves, int. aequilongi capillares subfissiles flavidi subrugulosi; calyptra conico-dimidiata pilosiuscula.

*Patria.* Nepal.

A *N. pumila* characteribus cursive impressis longe differt.

26. **N. scrobiculata** Nees ab Es. (in Nov. Act. Acad. Caes. Leop. XVI. Suppl. II. 1843. p. 477.); *monoica*; *N. exsertae* simillima, sed folia ubique *crenata, incrassate elliptico-areolata*, perichaetialia, pedunculus, theca, operculum et calyptra *N. exsertae*.

*Patria.* Manila, ad Hali-Hali: Meyen.

An peristomium ab illo *N. exsertae* distet, adhuc latet.

27. **N. Plumula** C. Müll.; *hermaphrodita*; caulis repens flexuosus nudus; divisiones erectae altiusculae *dendroideae 1—2 pinnatim ramosae, inferne subnudae frondiformes* planae, pallide virides; folia caulina laxè imbricata, ovate ligulato-oblonga breviter acuminata, vix au-

riculata, parum rugosa, margine erecto, apice crenulato, nervo fere ad apicem producto, cellulis minute rotundatis incrassatis; perich. ovato - lanceolata acuminata, nervo tenui infra medium evanido, infima ovato - subrotunda enervia; theca breviter exserta, *breviter urceolata* badia, oblique conico - rostrato - operculata, calyptra pilosa; perist. d. ext. *lanceolati longiusculi valde rugulosi albidii*, linea media exarati, *laeviter trabeculati*, int. aequilongi *valde fissiles rugulosi latiusculi, in membrana altiuscula positi.*

*N. Hookeri* Dz. et Molkb. Ann. sc. nat. 1844. p. 313! — *Pilotrichum Plumula* Nees ab Es. in Brid. II. p. 759.

*Patria.* Java, Sumatra: Korthals. Ex insula Java forsitan habuit Nees ab Esenbeck.

A *N. exserta* characteribus cursive impressis facile distinguitur.

28. *N. flaccida* C. Müll.; *monoica*; caulis secundarius *longissimus flexuosus decumbens flaccidus inordinate remote breviter pinnatus*, pallide viridis, tener; folia caulina *laxissime imbricata*, forma *N. Plumulae*, apice *grossiuscule eroso-dentata*; perich. e basi longius vaginante, margine subsinuato - undulatà subito acuminata subdenticulata; theca et peristomium *N. Plumulae*.

*Patria.* Java.

A *N. Plumula* infloresc. *monoica* et notis caeteris laudatis certe differt.

b. *Folia binervia.*

29. *N. crispa* Hdw. (Fund. Musc. II. p. 93. t. 14. f. 47—48.); *dioica*; caulis repens, secundarius *longissimus late complanatus, pulcherrime crispifolius*, ramis *brevibus patentibus tenuioribus attenuatis remotis simplicibus v. elongatis et iterum pinnulatis pinnatim ramosus obtusus, amoene fuscus, superne lutescens et viridis, nitidulus, firmus*; folia caulina dense imbricata, e basi minute auriculata flavida late ovato - oblonga, breviter obtusate acuminata, *eleganter rugosa*, asymmetrica, margine



*erecto* minute crenulato, nervis binis inaequalibus, cellulis ellipticis pallidis conflatis; perich. cylindrum longe exsertum cuspidatum angustum sistentia, elongate vaginanti-ovato-lanceolata acuminata, pallidissima, elongate densissime reticulata, apice crenulata; theca in ped. *longius exserto* flavido elliptica microstoma, pallida, dein fusca, exannulata, operc. longe oblique aciculari pallido; perist. d. ext. elongate latiuscule lanceolato-subulati *homogenei lutei tenerrime rugulosi, remote laeviter articulati*, linea media obsoleta exarati, int. breviores capillares flavidi subfissiles vix articulati.

*N. Distichia crispa* Brid. II. p. 246. — *Leskea crispa* Schrank. Prim. Fl. Salisb. p. 835. — *Hypnum crispum* L. Sp. Pl. p. 1589. — *H. pennatum undulatum crispum*, setis et capsulis brevibus. Dill. Musc. p. 273. t. 36. f. 12. A.

*Patria.* Ad rupes praesertim calcareas atque schistosas et truncos arborum per totam Europam et in America septentrionali. — *Vere.* Rarius fertilis.

Ex Andibus Quitensibus muscum simillimum Humboldt retulit, cujus surculum et perichaetia vidimus et a *N. crispa* discernere nequivimus. Muscus tamen ab Europaeo separetur usque adeo, donec fructus accurate examinatus sit. — A *N. pumila* affini notis indicatis differt.

**30. N. Douglasii** Hook. (Bot. Misc. I. 1830. p. 131. t. 35!); *dioica?* caulis secundarius longissimus late complanatus, ramis simplicibus flexuosis patentibus attenuatis longis gracilibus remotis pinnatus; folia caulina subarcte disposita, longiuscule oblonga acuminata, *obsoletinervia*, acumine serrulata, *pallide viridia*; perich. ext. late ovata acuta subsquarrosa, int. sensim longiora, longiuscule acuminata convoluta; theca in ped. *vix exserto* ovalis rufofusca, operc. oblique rostrato; perist. d. ext. lutei angustati dense trabeculati, linea longitudinali exarati, int. aequilongi similes. †.

*Patria.* In rupibus et arboribus ad plagam occidentalem Americae septentrionalis prope flumen Columbia dictum: Menzies, Douglas, Scouler.

A *N. crispa* notis cursive impressis certe differt.

**31. N. Jamesoni** Tayl. (Lond. Journ. of bot. 1846. p. 59.); caulis laxè cespitosus procumbens subbipinnatus, ramis complanatis; folia laxè imbricata erecto-patentia, oblongo-lanceolata, undulata integerrima, enervia (?) basi margine incurvo; perich. arcte imbricata; theca in ped. exserto late ovata; perist. d. ext. lanceolato-acuminati trabeculati, int. capillares articulati in membrana brevi positi. †.

*Patria.* In Andibus Quitensibus: W. Jameson 1845.

Ex animadv. auctoris et *Wilsoni*, qui speciem varietatem putat, *Neckerae Douglasii* simillima, sed differt: colore viridi, foliis integerrimis sensim acuminatis et perichaetialibus basin thecae non superantibus.

**32. N. Chilensis** Schimp. (Ann. d. sc. nat. Ser. II. T. VI. p. 147. t. 9.); *monoica*; caulis vagus denudatus ramosus, ramis pinnatim divisis complanatis; folia caulina asymmetrica ovato-lanceolata; perich. spathulato-lanceolata convoluta; theca breviter exserta ovata, operculo oblique rostellato. †.

*Patria.* Chile, ad arbores: Bertero.

Planta speciosa, habitu et magnitudine *N. crispae* persimilis, quoad characteres autem específicos a *N. pumila* difficiliter distinguenda, a qua tamen inflorescentia monoica dentibusque perist. margine non incrassatis satis superque discrepat.

**33. N. pumila** Hdw. (Musc. Fr. III. p. 49. t. 20.); *dioica*; caulis secundarius pusillus anguste complanatus, brevissime pinnatus, pallide viridis, indistincte crispifolius; folia caulina minora, inferne margine anguste revoluta, angustius saepe flexuose piliformi-acuminata; perichaetia breviora; theca brevissime exserta, exannulata microstoma, angustior, operc. conico oblique acuminato; perist. brevioris d. ext. trabeculis crassis et linea longitudinali obsoleta praediti, latere crenulati, albidii

laeves, int. capillares vix breviores flavidi vix fissiles et vix articulati.

*N. Distichia pumila* Brid. II. p. 244. — *Hypnum pumilum* Gmel. Syst. Nat. p. 1341. — *H. Dicksoni* l. c. p. 1342. — *Pilotrichum pumilum* P. B. Prodr. p. 83. — *Hypnum pennatum undulatum crispum*, setis et capsulis brevibus. Var. minor. Dill. Musc. p. 273. t. 36. f. 12. B.

*Patria.* Per totam Europam temperatiorem; in Scandinavia ab Ångström in Scania Sueciae dubie indicatur. Truncos arborum sylvarum altarum umbrosarum regionum montosarum habitat. — *Vere*, sed rarius fertilis.

A *N. crispa* characteribus explicatis facile distinguitur; a *N. complanata* foliis undulatis primo visu differt; a *N. pennata*, statu quoque sterili, statura tenera pusilla brevissime pinnata et foliis margine revolutis certe separatur.

**34. N. urnigera** C. Müll.; *monoica*; caulis secundarius pusillus tener, ramis longiusculis inordinate et remote pinnatus; folia caulina distincte denticulata, e cellulis mollibus anguste linearibus composita; perich. perpauca; theca breviter urceolata macrostoma, exannulata, operculo breviter oblique-conico; perist. d. ext. latere laeves, int. nodose articulati.

*N. pumila* Hsch. in Musc. Mexic., a Deppe et Schiede lectis, No. 1089.

*Patria.* Mexico: Deppe et Schiede pr. Xalapam legerunt.

A *N. pumila* proxima vestigiis datis optime distinguitur.

Euneckerae incertae sedis v. dubiae.

**1. N. obliquifolia** Hsch. (Fl. Bras. I. p. 56.); caulis erectus bipinnatim ramosus, ramis apicem versus attenuatis patentibus; folia disticha patentia pellucida pallide viridia, basi obliqua oblonga acuta serrata, nervo concolori infra apicem evanido, anguste lineari areolata. †.

*Patria.* Brasilia australis: Sellow.

2. **N. tenera** Hsch. (l. c.); caulis prostratus v. declinatus debilis pinnatim ramosus, ramis brevissimis; folia subdisticha remota erecto-patula ovata acuta argute serrata, concava, amoene viridia, nervo obscuriore infra apicem evanido, cellulis parallelogrammis. †.

*Patria.* Brasilia australis: Sellow.

3. **N. obtusata** Mont. (Ann. des sc. nat. XIX. 1843. p. 240.); caulis repens, secundarius decumbens simplex v. parce divisus late complanatus humilis obtusus sordide viridis; folia caulina late oblongo-ligulata obtusata integerrima valde rugulosa, margine erecto, parum asymmetrica, nervo longiusculo unico tenui, cellulis incrassate ellipticis.

*Patria.* Cochinchina, in cortice arborum pr. Tourane: Gaudichaud.

*Pilotricho undulato* habitu proxima. Fructus adhuc ignotus, forsitan immersus.

4. **N. heterophylla** Brid. (Sp. Musc. II. p. 32.); caulis 8-pollicaris erectus ramosus, ramis ancipitibus, ramulis supremis tetragonis fructificantibus; folia trifaria dimorpha, lateralia patentia ovato-oblonga obtusa, media imbricata acuta; perich. longiora angusta, in urceolum conferta; theca immersa subrotunda. †.

*Cryphaea heterophylla* Brid. II. p. 252. — *Daltonia heterophylla* Arn. Disp. p. 54. — *Pilotrichum heterophyllum* P. B. Prodr. p. 83. — *Hypnum heterophyllum* Poir. — *Fontinalis heterophylla* Lour. Fl. Cochinch. II. p. 841.

*Patria.* Cochinchina: Loureiro.

An *N. obtusata* Mont.?

5. **Hypnum duplicatum** Schw. (Suppl. I. II. p. 198 et III. II. 2. t. 279.); caulis primarius repens; rami pedales aut spithamei, penduli, ramis aliquot vagis, rarius uno v. altero subramoso; folia bifariam imbricata, fere disticha, oblonga acuta, inaequalia integerrima, basi oblique inflexa, quaedam ab altero latere baseos quasi in duplicaturam inflexa, nitida, siccitate transversim undulata,

flavescenti-aurea, nervo tertiam partem folii emetiente, tenuissimo, parum conspicuo, concolori, cellulis oblongis laxiusculis.

*Fissidens Dominicensis* Brid. II. p. 707.

*Patria.* Insula Domingo.

E descriptione et icone *Neckera* vera erit.

Sectio II. **Entodon** C. Müll. Bot. Zeit. 1844. p. 740. — Rami *compressi, complanati, dichotome divisi decumbentes*, foliis *cochleariformi-concavis ovatis*, binerviis, cellulis *anguste linearibus* laevibus, alaribus laxe quadratis. Theca exserta. Plantae pleurocarpicae.

*Patria.* Per orbem totum terrarum, sed terras calidas praeferentes.

*Omaliae* generis *Hypni* sectio analogae.

#### A. *Caulis planissimus.*

##### a. *Pedunculus flavus.*

35. **N. macropoda** Hdw. (Musc. Fr. III. p. 55. t. 23.); *monoica?* caulis repens, ramis *elongatis flaccidis curvatis pallide luteis compressis, parum complanatis*, ramulis paucis inaequalibus breviusculis irregulariter pinatis, nitidulis; folia laxa conferta patula, *angustissime longe lanceolato-acuminata*, concava basi veluti in colum angustum constricta et cellulis alaribus laxa quadratis planis pellucidis subgranulosis praedita, margine ibidem parum reflexo et inde erecto, apice solo distincte denticulata, nervis brevibus, cellulis angustissimis conspicuis dilute luteis; perich. basi latius vaginantia et laxa reticulata, in acumen planum flexuosum denticulatum producta, externa multo minora reflexiuscula; theca in ped. longissimo flavido stricto erecta cylindracea pallide fusca, operc. conico recte acuminato; perist. d. ext. late lanceolato-subulati *plani, tenuissime et remote trabeculati, integri*, interni *latiusculi carinati, integri, omnes intense aurantiaci, longitudinaliter ubique striatuli.*

*Entodon macropodus* C. Müll. Linn. XVIII. p. 707. — *Neckera (Distichia) macropoda* Brid. II. p. 248.

*Patria.* Jamaica, ad radices arborum montium:  
Swartz.

*N. longifoliae* proxima et notis laudatis distincta.  
Florem masculum non vidimus.

**36. *N. longifolia*** C. Müll.; *monoica?* *N. macropoda* simillima, sed ramis brevioribus, folia siccitate quoque patula, haud appressa amoene lutescentia, basi haud in collum constricta, perich. tenuissime acuminata, erecta, theca ampliore intensius fusca nitida.

*Patria.* India orientalis, Bombay, unde specimen unicum imperfectum misit Kegel ex horto Gendavensi Domini van Houtte.

Peristomium, operculum, calyptram et florem masculum nondum vidimus.

**37. *N. plicata*** C. Müll.; *monoica*; *N. longifoliae* proxima; sed rami foliis magis appressis magis compressi robustiores; folia caulina late ovato-acuminata obliqua, parce longitudinaliter plicato-implana; perich. latissime vaginantia, latius longissime acuminata, valde reflexa; pedunculus flavus brevis, theca minor pallidius fuscidula; perist. d. ext. late lanceolati, intense aurantiaci, superne in cilia tria cohaerentia divisibiles, dense approximati, crassi indistincte trabeculati, interni cilia in membrana parum exserta plana concolore tenuissima fissilia concoloria.

*Entodon plicatus* C. Müll. Linn. XVIII. p. 706. — *Isothecium Beyrichii* Mont. in Musc. Neelgher. Ann. d. sc. nat. 1842. No. 19.

*Patria.* Montes Neelgherienses Indiae orientalis:  
Perrottet.

**38. *N. Hampeana*** C. Müll.; *monoica*; latissime cespitosa appressa longe effusa planissima breviter dense irregulariter pinnata, ramis primariis elongatis attenuatis latiuscule myosuroideo-complanatis, viridissimis, nitentibus, flaccidis; folia caulina laxa conferta patula, latissime cymbiformi-ovata obtusa, vix acuminata, apice solo obsolete crenulata, cellulis angustissimis elongatis, alaribus

pellucidis laxis teneris *hexagonis* planiusculis, nervis *obsoletissimis*; perich. latissime vaginantia, longissime flexuose *late* acuminata, denticulata, multo laxius reticulata, parum reflexa; theca in ped. mediocri tenui flavido erecta cylindracea microstoma majuscula angusta pallide fusca, operc. conico oblique rostrato firmo, annulo latissimo; perist. d. ext. *longissimi late lanceolato-subulati, basi valde striatuli aurantiaci integri, superne pallidiores laeves, fissura hic illic hiante exurati*, remote articulati subtrigoni, interni subaequantes flexuosi nodosiusculi *carinati*, hic illic pertusi pallide aurantiaci *sublatiusculi*.

*Entodon Hampeanus* C. Müll. Linn. XVIII. p. 705.

*Patria.* Venezuela, prov. Caracas: Moritz in Coll. Thoreyana, No. 25.

Species pulcherrima, distinctissima.

**39. N. distans** C. Müll.; *monoica*; elongata prostrata planissima viridissima, *rigida*, rami ramulis longiusculis *rigide patentibus distantibus breviter cuspidatis phyllogonoideo-imbricato-foliosis eleganter pinnati*; folia caulina *perfecte planissime disticha*, dense imbricata, *angustiora, late lanceolato-acuminata* obtusiuscula, subcymbiformia, *magis plana*, apice obsolete crenulata, nervis *obsoletissimis*, cellulis *N. Hampeanae*; perichaetia *haud cylindracea, sed turgida, foliis maxime reflexis*; ped. flavidus longiusculus.

*E. Hampeanus* C. Müll. Linn. XIX. p. 214.

*Patria.* Venezuela, prov. Merida, Caripe: Moritz.

*N. Hampeana* proxima notis illustratis refugit. Thecam non vidimus.

**40. N. leptocarpa** Hook. et Wils. (Lond. Journ. of bot. 1846. p. 452. t. 15. L.); *monoica?* laxe cespitosa procumbens pinnata, ramis brevibus crassiusculis compressis attenuatis patentibus distantibus; folia caulina imbricata, erecto-patentia anguste elliptico-lanceolata concava, superne subdenticulata, nervis brevissimis *obsoletis*; perich. *dense vaginantia appresa* longius angustius

acuminata erecta; theca in ped. brevissimo flavido erecta longe lineari - cylindracea, senectute pellucida, tenera, operc. conico oblique acuminato; perist. d. ext. brevissimi subtruncati, linea longitudinali exarati. †.

*Pterogonium Jamesoni* Tayl. l. c. p. 59.

*Patria.* Monte Pichincha pr. Quito: W. Jameson 1845.

A *N. distante* proxima et *N. Beyrichii* notis cursive impressis differt. Peristomium internum nec Taylor, nec Wilson descripserunt.

41. *N. truncata* C. Müll.; *monoica*; habitus *N. Hampeanae*, sed rami breviores; folia *N. distantis*; perichætia et folia perich. *N. Hampeanae*; theca in ped. elongato flavido tenui erecta brevis cylindraceo-ovalis, ore aequali, veluti truncato, igitur macrostoma, operculo conico longe oblique aciculari; perist. d. ext. longi late lanceolato-subulati, fissura obscura non hiante notati, ubique concolori-fusciduli et rugulose striatuli, articulis rotundatis remotis, plani, interni cilia dentes aequantia valde regularia, magis fuscidula, rugulosa, articulis longis angustis, diaphane carinatis vix hiantibus.

*Patria.* Chile: Pöppig.

Ob vestigia haec excellentia species ab omnibus congeneribus distinctissima, tenella.

42. *N. columnaris* Schw. (Suppl. IV. t. 319.); *monoica*; latiuscule complanata, ramis brevibus, ramulis brevissimis patentibus, pallide viridibus nitentibus planissimis; folia caulina patulo-imbricata, late ovato-acuminata obtusiuscula concava, margine superne denticulato, ubique erecto, nervis brevissimis, cellulis anguste linearibus, alaribus paucis planis laxe quadratis pellucidis granulosis; perich. vaginantia, longiuscule anguste acuminata recta; theca in ped. longiusculo flavo erecta cylindracea fuscidula; perist. d. ext. longe lanceolato-subulati aurantiaci plani, indistincte trabeculati, fissura hic illic hiante exarati, cilia dentes aequantia tenuissima carinata nodo-



siuscula, fissura hic illic hiante pertusa; columella longe exserta.

*Entodon Schwägricheni* C. Müll. Linn. XVIII. p. 705.

*Patria.* Brasilia: Hb. Reg. Berol.

*N. truncatae* proxima, sed foliis angustioribus, minus concavis, theca cylindracea longiore, dentibus haud striatulis sed concolori-aurantiacis et ciliis multo angustioribus aurantiacis nodosiusculis differt. Operculum ignotum.

**43. N. Dregeana** Hsch. (Linn. XV. p. 139.); *monoica*; latiuscule complanata *planissima patulifolia* pallide viridis nitens humifusa, breviter et irregulariter pinnata, *pagina inferna valde radicante*; folia caulina late ovato-acuminata, *aequalia, raro implana*, caviuscula, acumine subobliquo denticulato latiusculo, cellulis alaribus tenerioribus, pallidioribus, nervis brevibus, margine infima basi vix reflexo; perich. late vaginantia longissime *tenuiter acuminata, haud vel vix reflexa*; theca in ped. mediocri breviusculo flavo tenuissimo stricto erecta cylindracea mediocris pallide fusca, haud nitida, operc. brevi conico oblique acuminato; perist. d. ext. breves lanceolato-*subulati, usque ad basin fere fissura unica exarati, longitudinaliter striatuli, plani*, remote articulati aurantiaci, interni concolores aequales tenuissimi nodosiusculi fissiles.

*Entodon Dregeanus* C. Müll. Linn. XVIII. p. 706.

*Patria.* Prom. b. spei, inter Buffel-Rivier et Key, in valle sylvestri, alt. 800—1200', 14. Jun. 1832.: Drège; Phillipstown ad Kat-Rivier, Jun. 1827.: Ecklon, Olifantshoek in sylvis: Ecklon.

A *N. plicata* simili vestigiis laudatis differt.

**44. N. pallescens** C. Müll.; *monoica*; late dense cespitosa procumbens, ramis inaequalibus brevibus *subcomplanatis* pallide viridibus *senectute rubiginosis* valde divisus, firmiusculus; folia caulina laxa conferta, *late ovata, in acumen plus minus longum, tenue et reflexum obsoletissime denticulatum producta*, parum concava, *implana*, nervis inaequalibus breviusculis, cellulis angustissime linearibus pallide viridibus parum conspicuis, alari-

bus paucis *ventricosis* laxe hexagonis; perichaetia longa anguste cylindracea, foliis vaginantibus longius acuminatis *erectis*; theca in ped. mediocri flavido, senectute parum rubiginoso, erecta anguste cylindrica aequalis, *pallide olivacea, dein ochracea*, operculo brevi minuto oblique acuminato, *pallide olivaceo*; perist. d. ext. breves, lato-lanceolati, breviter subulati, ubique pallidius aurantiaci, fissura hic illic hiante exarati, *haud striati*, cilia *breviora* tenuissima concoloria.

*E. macropodus* C. Müll. Linn. XIX. p. 214. et Hmp. ib. XX. p. 82.

*Patria.* Venezuela, prov. Merida: Moritz.

A *N. Dregeana* proxima structura externa et interna laudata distans et omnibus partibus pallidis primo visu discernibilis.

45. **N. cernua** C. Müll.; *monoica*; procumbens, latuscule complanata, ramis *brevibus fasciculatis, iterum brevissime ramulosis*, pallide viridis nitens, *irregulariter deplanata, tenella*; folia caulina *irregulariter inflectentia*, laxe imbricata, brevia, e basi haud constrictâ lanceolato-acuminata, acumine obtusiusculo crenulato, nervis brevibus obsoletissimis, cellulis angustissime linearibus, alaribus laxe hexagonis pellucidis granulosis planis multis; perichaetia turgida, foliis late vaginantibus longissime et maxime reflexo-acuminatis integris, basi laxe reticulatis; theca in ped. longiusculo tenui flavido *elongate anguste cylindrica subcernua* microstoma pallide fusca; perist. d. ext. breves anguste lanceolato-subulati, trabeculis valde prominentibus densiuscule approximatis et fissura longitudinali hic illic minute pertusa, praediti, aurantiaci, superne pallidiores, cilia brevia tenuissima fissilia fuscidula.

*Patria.* Java: Zollinger Coll. No. 867.

Ab omnibus congeneribus theca inclinatione subcernua jam differt.

46. **N. virens** Hook. et Wils. (Lond. Journ. of bot. 1844. p. 158.); *monoica*; caulis repens, ramis elongatis *angustissime complanatis* laxifoliis *teneris parce* breviter et inaequaliter ramulosis virentibus, vix nitidulis; folia

caulina latiuscule ovato-acuminata, breviter et acute acuminata, cochleariformi-concava, apice obscure denticulata, nervis brevibus, cellulis angustis pellucidis v. plus minus chlorophyllosis, alaribus valde granulosis, igitur obscuris, paucis, laxe quadratis; perichaetia *tenuissima*, foliis vaginantibus longe acuminatis erectis; theca in ped. *perbrevis tenerrimo flavido minute cylindraceo-ovalis olivacea*, operc. conico oblique acuminato; perist. dentes breves densissime approximati, late lanceolati, *in crura duo fissidentoidea, omnino fere secedentia tenuissima fissi*, indistincte trabeculati, aurantiaci, cilia *tenuissima integra*, dentes subaequantia concoloria.

*Entodon fissidens* C. Müll. Bot. Zeit. 1844. p. 740.

*Patria.* Brasilia, Serra dos Orgãos, ad rupes cujusdam catarractae: G. Gardner No. 76.

Teneritate partium omnium facile discernibilis. Flos masc. angustus.

b. *Pedunculus purpureus.*

a. *Glaber.*

47. **N. Sullivanti** C. Müll.; *monoica*; rigida *angustissime complanata virescens nitida gracillima*, ramulis *tenuissimis* subregulariter pinnatis; folia e basi parum coarctata *truncatâ ovato-acuminata obtusiuscula, apice crenulato, irregulariter complicata, saepe profunde concava*, cellulis alaribus teneris planiusculis pellucidis, caeteris *angustissime linearibus vix conspicuis brevibus*, viridibus; perich. *angustissime longe lanceolato-acuminata*; thecae in ped. *saepe aggregatis tenuissimis longissimis purpureis angustissime elongate cylindricae*, operc. *tenuissimis conicis rostratis rectiusculis*; perist. d. ext. longi *angustissimi pallidi*, cilia interna *tenuissima filiformia albida*.

*Leskea compressa* Sulliv. Musc. Allegh. No. 64.

*Patria.* Ad saxa in sylvaticis secus flumen French Broad Carolinae superioris: Sullivant.

A *N. compressa* notis cursive impressis longe differt et habitu *N. Beyrichii* proxima.

48. **N. complicata** C. Müll.; *monoica*; *N. Sullivanti* simillima, sed *parum latior et siccitate complicate complanata*, folia *regulariter concava*, e cellulis *elongatis perangustis distincte conspicuis pellucidis areolata*; perich. *latius vaginantia longe acuminata laxius reticulata*; theca in ped. *longiusculo solitario crassiore purpurascente anguste cylindrica robustior*, leptodermis pallida, operc. *conico oblique rostrato robustiori*; perist. d. ext. *longissimi intense fusci, apice divisibiles*, cilia interna *dentibus aequantia angusta carinata concoloria fusca divisibilia*.

*Entodon myurus* Hmp. Linn. XX. p. 82?

*Patria.* Venezuela, prov. Caracas: Moritz in Coll. Thoreyana Hamburgensi No. 25. bis.

49. **N. Beyrichii** Schw. (Suppl. II. II. 2. p. 162. t. 197.); *monoica*; *N. complicatae* simillima, sed theca in *pedunculo longissimo intense rubro anguste cylindrica erecta intense rubra*, dentibus perist. *externi e basi usque fere ad apicem aequaliter angustis, fissura media longitudinali haud exaratis, solidis, trabeculis valde prominentibus valde articulatis lutescentibus*, interni ciliis *divisibilibus fuscidulis*.

*Entodon Beyrichii* C. Müll. Linn. XVIII. p. 708.

*Patria.* Brasilia, in saxis ad flumen Rio Bio Panga prope Padre Corco: Beyrich. In locis non indicatis Brasiliae: Blanchet Coll. No. 3868.

50. **N. compressa** C. Müll.; *monoica*; *N. cladorrhizanti* simillima, sed *complanata angusta, tenella*; folia caulina *late ovato-acuminata obtusiuscula, integerrima, cellulis alaribus teneris parum ventricosus multis leptodermibus haud constrictis*; perich. *E. cladorrhizantis*, pedunculus *brevis glaber purpureus*; theca *elliptica erecta leptodermis, operculo conico oblique rostrato*; perist. *dentibus ext. breves obscuri, cilia interna quam maxime tenuia breviora*.

*Entodon compressus* C. Müll. Linn. XVIII. p. 707. — *Leskea compressa* Hdw. Sp. Musc. p. 232. t. 56. — Brid. II. p. 287. — *Hypnum Mühlenbergii* P. B. Prodr. p. 66.

*Patria.* Pennsylvania: Mühlenberg. Ad ripas fl. Ohio: Engelmann Aprili 1835 legit.

51. *N. myura* Schw. (Suppl. III. I. 1. t. 217, caule latius delineato); *monoica*; angusta gracilis compressa, haud distiche complanata, lutescens nitidula, ramis brevibus attenuatis curvatis myosuroideis tenuibus paucis parce pinnata; folia caulina dense conferta cochleariformi-ovata, brevissime acuminata, acumine reflexo denticulato, concava, pagina externa nervis distinctis breviusculis praedita transversaliter implana, cellulis alaribus quadratis laxis granulosis pellucidis planis, caeteris angustissime linearibus, striis aemulantibus; perich. longe anguste acuminata; theca in ped. mediocri purpureo erecta elliptico-cylindracea microstoma, operc. conico acuminato obliquo; perist. ext. d. breves lutescentes, interni cilia aequalia tenuissima fissura longitudinali exarata luteola.

*Pterogonium myurum* Hook. Musc. Exot. t. 148. — *Pterigynandrum myurum* Brid. II. p. 176 et p. 750.

*Patria.* Nepal: D. Gardner.

A *N. Sullivanti*, *Beyrichii* et *complicata* proxima characteribus laudatis differt.

β. Scaber.

52. *N. angusta* C. Müll.; *dioica*; latissime cespitosa procumbens compressa, luride viridissima, dein rufescens, ramis longissimis flexuosis flaccidis, breviter ramulosis, nitidulis; folia caulina *E. Perrotletii*, obsolete denticulata, e cellulis angustissimis minutis vix conspicuis areolata, molliora; perich. lanceolato-acuminata, apice distincte denticulata, basi haud lutea, sed magis pellucida; theca in ped. elongato gracili flexuoso superne scaberulo erecta minute elliptica, parum verrucose papillosa fusca, imperfecte annulata, operc. conico acuminato obliquo brevi, perist. d. ext. longe lanceolato-subulati pallide lutei parenchymatosi hypnoidei valde trabeculati, internum e ciliis brevibus imperfectis albidis fugacissimis compositum.

*Patria.* India orientalis, in vicinia urbis Bombay, unde copiose communicavit Kegel.

A. *N. Perrottetii* longe differt et habitu *N. myurae* magis affinis. Flos masc. turgide gemmaceus, foliis late ovatis obtuse acuminatis.

B. *Caulis turgidius compressus.*

a. *Pedunculus flavus glaber.*

53. **N. Regnelliana** C. Müll.; *monoica*; *caulis repens sciuroideus humilis, crassiusculus homomallophyllus, ramis brevibus simplicibus densifoliis, haud complanatis, subcompressis, pallide viridibus, nitentibus; folia caulina lanceolata, sensim acuminata acuta, profunde concava et longitudinaliter pluries valde plicata, basi subrotundata, haud constricta, margine plerumque usque ad medium valde revoluta, apice obsolete denticulato, cellulis anguste linearibus pellucidis, alaribus multis regulariter quadratis pellucidis, nervis subnullis; perich. late vaginantia, longissime tenuissime acuminata integerrima, erecta, externa pro more minora reflexiuscula; theca in ped. mediocri flavido ovalis brevis macrostoma.*

*Entodon plicatus* Hmp. Linn. XXII. p. 582.

*Patria.* Brasilia, ad Caldas in Minas Geraës: **Regnell Coll. II. No. 357.**

Quoad thecam *N. truncatae* similis, sed ab ea ceterisque congeneribus praesertim foliis profunde plicatis longe refugit. Perist. non vidimus.

54. **N. flavescens** C. Müll.; *monoica*; longe repens, vage ramosa, ramis pinnatis, ramulis brevibus amoene flavescentibus densifoliis attenuatis compressis, haud complanatis, curviusculis; folia caulina sicca et madefacta dense imbricata, forma et structura *N. Regnellianae*; perichaetia ejusdem speciei; pedunculus longissimus flavissimus, theca longe anguste cylindracea pallide fusca, operc. conico oblique acuminato; peristomii dentes breves, in crura duo subsecudentia tenuissima ex apice ultra medium fissi pallide aurantiaci, basi dense trabeculati, cilia brevissima albida fugacissima.

*Pterigynandrum flavescens* Brid. II. p. 193. — *Pterogonium flavescens* Hook. Musc. Exot. t. 155.

*Patria.* Nepal Indiae: D. Gardner.

Planta pulcherrime flava, elegans, a *N. Regnelliana* simillima vestigiis illustratis facile discernibilis.

b. *Pedunculus purpureus glaber.*

55. *N. orthocarpa* C. Müll.; *monoica?* *procera aureo-lutescens, nitidissima, ramis subteretibus, ramulis multis densissimis elongatis teretibus curvatis aequalibus eleganter pinnata;* folia caulina dense imbricata, e basi angustiore oblongo-ovata obtusa, brevissime acutata, cellulis alaribus subventricosis incrassatis fuscidulis v. griseis, caeteris angustissimis; perich. anguste oblonga obtusa; theca in ped. longissimo erecta cylindracea microstoma, operculo et perist. *N. cladorrhizantis.*

*Entodon insidiosus* Spruce Ann. and Mag. of Nat. Hist. 1849. Musc. Pyr. No. 102. — *E. Montagnei* C. Müll. Linn. XVIII. p. 708. — *Isothecium insidiosum* Mont. Ann. d. sc. nat. 1843. p. 352. t. 15. — *Hypnum paradoxum* Mont. in sched. — *Hypnum Schreberi*  $\gamma$ . *orthocarpon* Brid. II. p. 422. — *H. orthocarpon* La Pyl. in Brid. I. c. — *H. concinnum* De Not. Mant. n. 18.

*Patria.* In terra saxisque calcareis circa Parisios et Turones (Tours): La Pylaie. Alsatia et Helvetia: W. P. Sch. In Pyrenaeis: Spruce. Prope Carlsruhe et Monachium Germaniae: A. Braun. In pascuis aridis subcollinis Italiae superioris: De Notaris. In calcareis ubique forsan occurrit.

56. *N. coarctata* C. Müll.; *monoica;* longe repens, rami longissimi robusti compressi, ramulis patentibus flaccidis, curvatis attenuatis subsimplicibus inaequaliter pinnati, flavescens; folia caulina bifariam imbricata laxè erecta plana, e basi distincte coarctatâ ovato-acuminata, integerrima, enervia (?) cellulis anguste linearibus, alaribus laxè quadratis; perich. duplo longiora et longius acuminata; theca in ped. *perbrevis* rufescente erecta oblongo-cylindrica tenuis flavo-badia, operc. conico subulato, thecam aequante, rectiusculo; perist. d. ext. albi-

*cantes tenerrimi* articulati lanceolato-subulati, cilia aequalia tenuissima concoloria. †.

*Neckera flavescens* Hook. Transact. of Linn. Soc. IX. p. 314. t. 27. f. 2. — Schwägr. Suppl. II. 2. p. 156. t. 141. — Brid. II. p. 234.

*Patria.* Nepal Indiae.

Habitus et color ex obs. *Schwägricheni Hypni Schreberi*; species itaque *N. orthocarpae* proxima videtur.

57. *N. cladorrhizans* Hdw. (Sp. Musc. p. 207. t. 47.); *monoica*; late cespitosa prostrata, ramis e viridilutescentibus nitidulis crassis compressis densifoliis, ramulis brevibus irregulariter pinnatim dispositis attenuatis; folia caulina e basi constricta, utrinque cellulis laxe quadratis pellucidis pachydermibus granulosis praedita, margine reflexâ late ovato-acuminata, apice denticulata, concava, margine erecto, nervis brevissimis tenuibus, cellulis perangustis elongatis; perich. convolutacea longe acuminata, integerrima basi laxius reticulata longius sed tenerrime nervosa v. enervia, externa minora reflexa; theca in ped. elongato purpureo laevi erecta cylindracea, ore angustiori, rubens, operc. conico oblique acuminato brevi; perist. ext. d. longi erecti fusci, int. aequales angustissimi, linea longitudinali exarati flaviduli.

Brid. II. p. 230. — *Entodon cladorrhizans* C. Müll. Linn. XVIII. p. 707. — *Isothecium Schleicheri* Schimp. in litt., species Europaea quae tamen c. Americana omnino convenit. — *Anomodon cladorrhizans* Hüb. Musc. Germ. p. 557.

*Patria.* Ad truncos arborum et in rupibus praesertim schistosis calcareis umbrosis subalpinis et muris Tirolis, Helvetiae, Salisburgiae, Pyrenaeorum et Americae septentrionalis, ubi primus legit Mühlenberg Pennsylvaniae. — *Hyeme et vere.*

Flos masc. anguste gemmaceus, foliis convolutaceo-ovatis reflexiuscule acuminatis.

58. *N. breviseta* Hook. et Wils. (Lond. Journ. of bot. 1842. p. 419. t. 24.); *monoica*; *N. cladorrhizanti* simillima, intense viridis, dein apicibus ramorum ru-



*fescentibus*; folia caulina late ovata, longe et tenuiter plerumque oblique acuminata, apice parum denticulata, magis chlorophyllosa mollia, cellulis alaribus ventricosis tenerrimis pellucidis v. granulosis; perich. multo teneriora laxius reticulata; pedunculus brevior; perist. d. ext. distincte trabeculati breves, int. irregulares, externis adglutinati.

*Patria.* America sept., Ohio: Sullivanti Musc. Allegh. No. 79.; prope St. Louis ad flum. Mississippi: Drummond primus legit.

**59. N. Abyssinica** C. Müll.; *monoica*; dense cespitosa, ramis *crassiuscule julaceis parum compressis luteis* rectis v. curvatis, saepe valde radicanibus, intertextis brevibus irregulariter divisa; folia caulina densissime conferta, humore patula, late ovata, in acumen plus minus longum tenue obsoletissime denticulatum subobliquum producta, *cochleariformi-concava*, margine ubique valde *revoluto*, nervis brevissimis, cellulis angustissime linearibus pallidis v. luteolis, alaribus laxe quadratis pachydermibus multis pellucidis granulosis; perich. longiora, anguste lanceolato-acuminata, basi subnervi laxe reticulata vaginante, *stricta*, *superne valde denticulata*, externa multo minora, magis ovata, apice reflexiuscula; theca in ped. elongato purpureo flexuoso erecta, *cyli-draceo-elliptica longiuscula*, microstoma, fusca haud nitida, glabra *exannulata*, operc. conico oblique *subulato*; perist. brevissimi ext. d. lanceolati *densissime indistincte trabeculati rubiginosi carnosi*, *linea longitudinali obsoleta*, ad latera pallidiora, interni cilia *fugacissima solitaria brevia latiuscula carinata irregulariter articulata flavida laevissima*.

*Entodon Schimperi* Hmp. Linn. XX. p. 83. — *Leptohymenium julaceum* Br. et Sch. in Musc. Abyss. No. 423.

*Patria.* Abyssinia, in arborum truncis prope Adesulam: W. Schimper, 4. Sept. 1838.

*N. seductrix* proxima; ab hacce species Abyssinica peristomio jam longe refugit. Flos masc. turgide ovalis, fol. late ovatis breviter acuminatis.

60. **N. seductrix** Hdw. (Sp. Musc. p. 208. t. 47.); *monoica*; *N. Schimperii* simillima, *e viridi lutea*, nitida; folia caulina late ovata obtusa, cochleariformi-concava, acumine brevissimo recto, margine *integerrimo erecto*, infima basi solo parum revoluta; perich. longiora, erecta, anguste lanceolato-acuminata, valde complicato-concava, *integerrima*, nervis longis latiusculis, externa minora, apice reflexiuscula; theca in ped. *perbrevis* purpureo longiuscule cylindracea rufescens, *imperfecte annulata*, operc. conico oblique acuminato; perist. dentes breves lanceolati dense distincte trabeculati aequidistantes, linea longitudinali vix conspicua exarati, *ubique aurantiaci*, cilia breviora *perfecta* flavida regularia angusta carinata.

Brid. II. p. 231. — *Entodon seductrix* C. Müll. Linn. XIX. p. 214. — *Pterigynandrum obtusifolium* Brid. II. p. 182! — *Pt. Carolinianum* ej. II. p. 184! — *Pterogonium Carolinianum* Schw. Suppl. I. I. p. 108.

*β. gracilis*; rami tenuiores longe myosuroidei attenuati; pedunculus longiusculus, theca angustissima subcernua. Sulliv. Musc. Allegh. No. 78.

*Patria.* America septentrionalis, ubi in terra et radicibus arborum haud infrequens videtur et mensib. *Februarii* et *Martii* fructus maturat. In Pennsylvania primus legit Mühlenberg.

Flos masc. turgidus, fol. latissime ovatis obtuse acuminatis.

*c. Pedunculus purpureus scaber.*

61. **N. Perrottetii** C. Müll.; *dioica*; elongate repens tenuicaulis, ramis ascendentibus longiusculis crassiusculis rigidis breviter ramulosis fertilibus, lutescentibus nitidulis, *laxe julaceis*, vix compressis crassiusculis; folia caulina laxius imbricata, anguste ovato-acuminata, concava, margine infimae basis parum revoluta, superne remotiuscule distincte eroso-denticulata, cellulis *alaribus minutissimis incrassatis luteolis paucissimis planiusculis*, caeteris angustissimis brevibus lineari-oblongis, nervis *ad medium fere productis*; perich. vaginantia longe acu-

minata, apice denticulata, longius sed incrassate areolata, externa multo minora squamaeformia rotundato - ovata obtusa, brevissime acuminata, omnia basi lutea; theca in ped. longo rigido *scaberulo* purpureo erecta *majuscula*, *turgide elliptica*, *spinoso-papillosa*, fusca, operc. conico oblique acuminato laevi, calyptra apice asperula; perist. dentes crassi lato-lanceolati extrorsum reflexiles, *breves*.

*Symphodon Perrottetii* Mont. Ann. d. sc. nat. XII. 1841. p. 279. c. tab.

*Patria.* India orientalis, ad imos arbor. truncos dense cespitosa, in montibus coeruleis peninsulae Indicae, Neelgherries ab Anglis nuncupatis, imprimis circa Ootacamund: Perrottet.

Muscus perbellus, cujus peristomium internum in specimenibus paucis imperfectis haud vidimus. — *Symphodon* Mont., ab auctore „ob dentes peristomii simplicis membrana horizontali basi conjunctos” in notas false observatas v. haud existentes genus conditum delendum erat. Peristomium ex analogia *N. angustae* et *Abyssinicae* duplex imperfectum certe erit. — Ab omnibus *Entodontibus* theca spinoso-papillosa jam primo momento longe differt.

#### Species incertae.

1. *Anoectangium planifolium* Hdw. (S. Musc. p. 44. t. 6.); caulis depressus simpliciusculus, latiusculus, viridis, folia caulina patula, late ovata obtusiuscula, acumine torto brevi denticulato terminata, planiuscula, enervia; perich. pariter setifera; theca in ped. breviusculo purpureo laevi arcuato erecta, sed curvatura pedunculi subhorizontalis, brunnescens, siccitate striata, operc. conico-subulato recto. †.

Brid. II. p. 167.

*Patria.* Insulae Australes: Banks.

Peristomium Hedwig non vidit, sed columellam longe exsertam. Ex analogia huc retulimus.

**2. Actinodontium ascendens** Schw. (Suppl. II. II. 1. p. 75. t. 174.); hermaphroditum; caulis brevis dense cespitosus robustus declinatus compressiusculus latiusculus; folia laxe imbricata, sicca appressa, humore patentiuscula oblonga breviter mucronata, paulum obliqua, tenera pellucida integerrima albida, nervo basilari geminato debili, cellulis oblongis; perich. triplo breviora paulo latiora et acutiora subnervia laxius reticulata; theca in ped. breviusculo rufo laevi erecta, cylindracea aequalis, interdum curvula, fusco-badia, operc. e convexo rostrato recto; perist. d. ext. late lanceolati robusti turgidi leviter trabeculati albidi, int. multo angustiores solidi aequilongi albidi, in membrana haud exserta albida positi. †.

Brid. II. p. 756.

*Patria.* Java: Reinwardt.

*Entodon* videtur, nam calyptra, ab auctore in contextu campanulata descripta et in tabula (Fig. 17.) depicta, in Fig. 1. ejusdem tabulae, plantam magnitudine naturali praebente, distincte dimidiata delineata est.

### Species delenda.

**Pterigynandrum Boscii** Brid. II. p. 750; *Entodon* quidam jam descriptus esse videtur. In Hb. Brideliano non vidimus.

Sectio III. **Pterogonium.** Plantae pleurocarpicae pusillae tenellae; caulis decumbens vage pinnulatus subcompressus; folia homomalla cochleariformia, cellulis amoene oblongis, alaribus pulcherrime vesiculaeformibus flavidis; nervis binis obsoletis, striis flavidis brevissimis plerumque designatis. Theca exserta, minutissima, supramatura declinata. Perist. plerumque simplex.

*Patria.* Zonam maritimam terrarum calidarum plantae amantes.

*Leptohymeniis* proximae plantae, inter ea et *Entodontes* pulcherrime intermediae.

1. *Folia acuminata.*a. *Caules turgescentes.*

**62. N. Madagascariensis** C. Müll.; *monoica*; caulis procumbens *turgide teres crassiusculus* densifolius, ramis brevibus *acutis*, subincurvis *nitide-viridibus rufescentibus*; folia caulina *dense appressa* parum secunda, *oblongo-ovata parum acuminata*, cochleariformi-concava, *integerrima, vix plicata, margine ubique late revoluto*, nervis binis obsoletis, cellulis oblongis pallidis inanibus, basi flavidis, alaribus vesiculaeformibus parvis amoene flavidis; perich. interna *anguste acuminata longiora integerrima*; theca in ped. perbrevis rufo laevi tenuissimo erecta minutissime oblongo-urceolata angustissima fusca, operc. oblique subulato; perist. simplicis d. longiusculi erecti albi.

*Leucodon Madagascariensis* Brid. II. p. 213.

*Patria.* Madagascar: Dumont d'Urville.

Ob vestigia explicata primo adpectu a congeneribus cognoscenda et *N. hamatae* habitu proxima.

b. *Caules compressi.*α. *Folia margine revoluto.*†. *Folia breviter acuminata.*

**63. N. Boryana** C. Müll.; *monoica*; laxe cespitosa irregulariter breviter vage ramosa, ramis pallide viridibus, dein fuscidulis, parum curvatis, *tenuibus subcompressis*; folia caulina dense imbricata subhomomalla, *anguste lanceolata, breviter acuminata*, profunde concava, *integerrima, margine ubique valde revoluto, subplicata*, cellulae oblongae, v. ellipticae basi flavidae, alares paucae infimae majusculae vesiculosae pulcherrime flavidae, nervi brevissimi obsoleti; perich. magis acuminata et *subdenticulata*, basi pellucida, caviuscula; thecae in ped. perbrevibus *creberrimis* tenuissimis minutissime angustissime ovatae pallidae, deoperculatae ore coarctato urceolatae fuscae, exannulatae, operculis conicis, longe et valde oblique acicularibus leptodermibus; perist. d. ciliaeformes longi albidi remoti, rugulosi, linea longitudinali

exarati, obscure articulati, apice introrsum involuti; calyptra minuta albida tenera glabra.

*Pterogonium Boryanum* Mont. in litt. — *Pterogonium urceolatum* Schw. in Musc. Surinamens. Weigelt.

*Patria.* Domingo: Hb. Boryan. Surinam: Weigelt; in trunc. *Tamarindi Indicae* pr. Paramáribo, Junio 1844, Kegel. E Cayenne comm. Schwägrichen.

64. **N. leucocytus** C. Müll.; *monoica*; laxe cespitosa, ramis *tenuibus valde curvatis* subhomallophyllis *sordide luteo-viridibus*, vagis; folia e basi *angustiore ovata obtusiuscula* vel subacuminata, profunde concava, subplicata, margine ubique revoluta integerrimo, cellulis basi, reflectione marginis valde angustatae, *pallide flavidis*, alaribus *inferioribus pallide flavidulis*, superioribus minutissime quadratis obscuris pluribus, nervis distinctioribus; perich. multo minora angustiora parum laxius reticulata, ubique pallida, subdenticulata; theca in ped. perbrevis senectute arcuato erecta, dein nutanti-inclinata minutissime ovalis; dentes angusti.

*Pterogonium microcarpum* Hmp. in litt.

*Patria.* Java.

A *N. Boryana* characteribus cursive impressis differt. Peristom. imperfectum solum vidimus.

65. **N. lineolata** C. Müll.; *monoica?* longe prostrata, ramis *elongatis parce breviter dichotomis sordide viridibus valde homallophyllis, tenuibus*; folia late ovata longius acuminata, inaequaliter concava implana, haud plicata, margine ad latus alterum valde revoluta, alterum erecto, cellulis basi laxioribus; perich. anguste lanceolata longe acuminata erecta, raro denticulata, inferne laxe pellucide et infima basi flavide reticulata, ubique margine revoluta, *profunde regulariter concava*, interdum plicata; theca in ped. perbrevis purpureo subinclinata, e collo minute anguste subcernuo-oblonga; perist. *N. Boryanae*.

*Pterigynandrum lineolatum* Duby in Moritzi Verz. d. Zolling. Pl. p. 130.

*Patria.* Java, ad lapides fluminis Tjapus: Zollinger No. 1807.

A *N. Boryana* notis laudatis differt. Operculum non vidimus.

**66. *N. urceolata*** C. Müll.; *monoica?* prostrata tenella distincte homomallophylla, ramis brevibus *teretibus simplicibus erectis amoene viridibus*; folia dense imbricata erecta coarctata, *ovata obtusiuscula vix acuminata*, profunde concava, integerrima, cellulis tenuissimis; perich. anguste lanceolato-acuminata acuta erecta; theca in ped. perbrevis *cylindracea*, *urceolata* constricta fusca, operc. conico obliquirostro, dentibus et calyptra *N. Boryanae*.

*Pterogonium urceolatum* Schw. Suppl. II. I. p. 33. t. 110. —  
*Pterigynandrum urceolatum* Brid. II. p. 187.

*Patria.* Insula Tristan d'Acunha: Aubert du Petit Thouars.

A *N. lineolata* caule tenuiore, foliorum forma et theca haud cernua certe differt.

**67. *N. fuscescens*** C. Müll.; *monoica*; *dense prostrata appressa*, ramis laxe et homomalle foliosis *sordide fuscescenti-viridibus*, apice *parum falcatis brevibus planiusculis*; folia caulina e basi latiore ovata subacuminata obtusiuscula v. subacuminata, profunde concava subplicata integerrima, margine ubique revoluta, e cellulis *minutissimis rhomboideis amoene pellucidis composito*, cellulis alaribus infimis parvulis vesiculososis pallide flavidulis, superioribus illis marginis revoluti simillimis, *cellulis caeteris angustis longioribus*; perich. lanceolato-acuminata acuta, basi tenerrime laxe flavidulo-reticulata; theca in ped. perbrevis erecta, dein subinclinata minuta *oblonga*, *ubique aequalis*, operc. conico oblique acuminato, calyptra minuta apice scabriuscula.

*Pterogonium fuscescens* Hsch. in sched.

*Patria.* Prom. b. spei: Bergius.

*N. lineolatae* proxima et vestigiis illustratis facillime distinguenda.

68. **N. macrocarpa** C. Müll.; *monoica?* caulis repens foliosus depressus late explanatus, *tomentoso-cespitosus, intense viridis*, pinnatim divisus tenellus pusillus; folia *anguste ovata acuta striata* enervia, marginibus revolutis patulis integerrimis; theca in ped. *perbrevis* laevi minuta oblonga *horizontalis*. †.

*Pterogonium macrocarpum* Harvey in Hook. Ic. Pl. Rar. t. 24. f. 12. — Lond. Journ. of bot. 1840. p. 12 c. descriptione.

*Patria.* Nepal.

Perist. imperfectum simplex angustum breve et calyptram immaturam basi laciniatam auctor vidit. Nomen triviale maxime ineptum!

††. *Folia longe acuminata.*

69. **N. hamata** C. Müll.; *monoica*; vage ramosa laxa cespitosa *crassiuscula, vel ramis junioribus tenuibus subhomomallophyllis*, flexuosis, e viridi sublutescens; folia *anguste longe lanceolato-acuminata*, profunde concava, margine ubique valde revoluta integerrima, cellulis alaribus infimis pulcherrime flavidis majusculis, vesiculosis, superioribus minutissimis quadratis incrassatis obscuris pluribus; perich. multo teneriora, intima minora, margine minus reflexa, subdenticulata; theca in ped. *longiusculo* purpureo *semper erecta turgide ovalis majuscula* fusca; perist. d. *late lanceolati* remoti, dense articulati, pallidi laeviusculi *breves*.

*Pterogonium hamatum* Hmp. in litt.

*Patria.* Java, ad arbor. sylvestres.

A *N. Boryana* ob vestigia laudata longe distincta. Thecam deoperculatam tantum habemus.

β. *Folia margine erecto.*

70. **N. pulchella** C. Müll.; *monoica*; *tenuissima tenerrima intertexta exilissima, parce divisa, pallide viridis*, homomallophylla; folia caulina *minuta, laxissime patentia sparsa, angustissime lanceolato-acuminata*, interdum parum flexuosa et acumine tenui reflexa, *caviuscula, margine ubique erecto, basi parum introrsum constricto*,



integerrimo, cellulis paucis ellipticis aequalibus, alaribus paucissimis quadratis pellucidis v. obscuris, haud incrassatis, minutis, infimis flavidis subobsoletis; perich. majora longius acuminata; theca in ped. brevissimo apice incrassato minutissime ovalis recta, dein inclinata, pallide aurantiaco-fusca, operc. conico oblique rostrato, dentibus humore valde reflexis, lanceolato-subulatis, dense approximatis et dense trabeculatis albidis laevissimis, linea media exaratis.

*Pterogonium pulchellum* Hook. Musc. Exot. t. 4. — Schwägr. Suppl. III. 1. 1. t. 210. — *Pterigynandrum pulchellum* Brid. II. p. 179.

*Patria.* In altioribus umbrosis montis Quindiu Novo-Granatensis, prope el Moral alt. 1070 hexapodum: Humboldt et Bonpland. Brasilia, pr. Rio Janeiro: Beske.

Specimina nostra Brasiliensia cum iconibus auctorum et descriptione convenire videntur. Schwägrichen solus cellulas folii elongatas et basi pellucas illustravit, dum nostrae ellipticae et basi flavidae minutae quadratae obscurae. An propria species? Exiguitate primo momento discernibilis.

## 2. *Folia obtusa.*

71. **N. vulpina** Mont. (Ann. d. sc. nat. Ser. II. T. II. p. 204. t. 4.); *monoica?* decumbens vage vel subpinatim ramosa, ramis ascendentibus subsimplicibus apice obtuso subgemmaeformi incurvis, sordidissime viridibus; folia caulina laxè disposita patula, subsecunda, *cymbiformi-oblongo-ligulata obtusissima, vix acuminata*, margine ubique parum revoluto integerrimo, cellulis brevibus pellucidis linearibus submollibus, alaribus superioribus paucis *laxiuscule quadratis pellucidis* parvulis, inferioribus *magnis pallide flavidulis*; perich. longiora ovato-acuminata erecta; theca in ped. longiusculo purpureo erecta oblongo-cylindrica angusta fusca, operc. conico curvirostro; perist. *duplicis* d. dense approximati latiuscule lanceolati, tenues plani dense trabeculati pallidi laeves, cilia aequilonga tenuia dense articulata fuscidula.

*Patria.* Guiana: Leprieur.

E distinctissimis.

Sectio IV. **Leptohymenium** auct. non Schw. Plantae pleurocarpicae *filiformes tenerae, ramis tenuibus, nec julaceis, nec compressis, sparsifoliis, vage ramosae.* Folia ovata acuminata concava, e cellulis *linearibus* composita. Theca exserta.

*Patria.* Per totum orbem terrarum.

a. *Folia uninervia.*

α. Theca globosa.

**72. N. procumbens** C. Müll.; dioica, latissime cespitosa procumbens v. prostrata *sordide lutescens*; caulis longiusculus pluries in ramos longiores breviter pinnate ramulosos divisus, *plumose foliosus, tenuiusculus rigidiusculus, ramulis siccitate curvatis*; folia caulina *conferta, humore erecto-patentia, late lanceolata longiuscule acuminata, carinato-concava, margine usque fere ad apicem revoluta, apice denticulato, nervo valido excurrente, flavido-viridi, cellulis minutis oblongis subconflatis tenerrime punctulatis lutescentibus, alaribus multis minutis rotundatis*; perich. *angustius lanceolata longius tenuius acuminata, integerrima, margine erecto, nervo excurrente sensim dissoluto tenuiusculo, cellulis ubique elongatis angustis pellucidis laevibus*; theca in ped. *vix exserto scabro turgide globosa fusca, annulo operculo adhaerente, operc. conico oblique acute acuminato concolori*; perist. d. ext. *latiuscule lanceolato-acuminati conniventes albidi dense trabeculati, linea longitudinali exarati, inferne laeves, superne intus trabeculis maxime appendiculato-prominentibus*; *int. breviores albidi capillares fugacissimi*; calyptra *glabra, apice scaberula dimidiata.*

*Patria.* Pone Bombay Indiae orientalis lectum copiosissime comm. Kegel ex horto Dom. Van Houtte.

Species excellentissima atque pulchella, *N. Sieboldi* proxima, characteribus tamen explicatis longe refugiens.

**73. N. Sieboldi** C. Müll.; *dioica*; caulis prostratus *tenellus filiformis* vage pinnatim ramosissimus *microphyl- lus*, ramulis *tenerrimis attenuatis*, viridibus; folia sparsa *patentia lanceolato-acuminata*, carinata, margine ubique erecto, *crenulato*, nervo *tenui infra apicem evanido pal- lido*, cellulis *subrhomboidalibus laxiuscule quadratis*, ob *papillas elevatas valde opacis carnosulis viridissimis*, ala- ribus *vix ullis*; perich. teneriora brevius nervosa, basi oblongo - areolata; theca in ped. carnosulo laevi erecto *breviusculo erecta minute globosa*, annulata, operc. conico oblique acuminato, calyptra majuscula ventricose cucul- lata, apice asperula, *basi pilosa*; perist. simplicis (?) dentes aequidistantes fragiles, *e basi usque ad apicem ad trabeculas appendiculati*.

*Haplohymenium Sieboldi* Dz. et Molkb. Ann. d. sc. nat. 1844. p. 310. — Musc. Archip. Ind. p. 127. t. 40.

*Patria.* Japonia: a Siebold.

*N. procumbenti* multis notis affinis, sed characteribus expositis toto coelo distans. An peristomium revera simplex? Peristomium observare nobis non licuit.

β. Theca oblonga.

**74. N. striata** Schw. (Suppl. III. I. 2. tab. 246.); *dioica*; intertexta prostrata *filiformis nitida*, longe fle- xuosa, *ramis attenuatis viridibus* inordinate pinnatim dispositis; folia caulina conferta *appressa, humore sub- plumose erecta, longe lanceolato-acuminata stricta inte- gerrima concava*, margine usque ad medium et ultra *valde revoluta utrinque veluti bistriata*, laevia, nervo *va- lido* ante apicem evanido, cellulis *breviuscule anguste linearibus pellucidis virescentibus mollibus*, alaribus par- vulis *laxe quadratis intus granulosis*; perich. longiora robustiora, laxius longius reticulata, pallidiora; theca in ped. *breviusculo purpureo laevi erecta cylindraceo-ob- longa purpurea*, operc. *convexo mucronato*; perist. d. ext. angustissime lanceolato-acuminati fusci rugulosi, parum trabeculati, linea longitudinali obsoleta exarati, int. ae-

quilongi capillares, in membrana brevissima fusciduli subcarinati.

*Leptohymenium striatum* A. Br. in sched. — *Isothecium striatum* Spruce in Musc. Pyr. No. 93. Ann. and Mag. of Nat. Hist. 1849. — *Anomodon mutabilis* Mont. Hist. d. II. Canar. p. 17. — *A. striatus* Hüb. Musc. p. 559. — *Maschalocarpus striatus* Spreng. Syst. Veget. IV. 1. p. 158. — *Pterigynandrum striatum* Dub. Bot. Gall. p. 563. — *Pt. mutabile* Brid. Mant. Musc. p. 129, et Br. univ. II. p. 190. — *Pterogonium striatum* Schw. Suppl. I. 1. p. 103. t. 27. — *Leskea bulbifera* Fröhl. in Brid. Sp. Musc. II. p. 61. — *Hypnum mutabile* Brid. Sp. Musc. II. p. 156. — *Grimmia mutabilis et plicata* Opitz, fide Bridelii.

*Patria.* In regione subalpina et alpina per totam Europam, excl. Scandinavia, sed rara. — *Aestate et hyeme.*

**75. N. pygmaea** Dz. et Molkb. (Ann. sc. nat. 1844. p. 313.); caulis repens filiformis vage ramulosus, ramuli simpliciusculi ascendentes exiles; folia laxè imbricata erecto-patentia *ovato-lanceolata subulato-acuminata serrulata*, nervo ad medium folii circiter evanido; theca erecta oblongo-cylindrica, operc. convexo oblique rostrato. †.

*Patria.* Borneo.

**76. N. Grateloupii** C. Müll.; *monoica*; exilis; caulis filiformis repens uncialis, ramis irregularibus brevibus vagis ascendentibus apice attenuatis recurvis; folia caulina viridia *anguste longiuscule ovato-lanceolata acuminata, subsecunda, carinata, subdenticulata, nervo tenuissimo ultra medium evanido*, cellulis oblongo-ellipticis basi margine subquadratis, *margine erecto*; perich. enervia magis acuminata recta; theca in ped. *perbrevis badio laevi dextrorsum tortili erecta, ovato-elliptica*, ore tantillum constricta, operc. e convexo-conico oblique mucronato, mucrone obtusiusculo thecam dimidiam vix aequante concolori; perist. duplicis d. ext. lanceolati linea media notati, basi opaci, superne hyalini laxè articulati, cellulis parallelogrammis biseriatis, int. ciliaeformes subaequilongi, cellulis supra medium uniseriatis.

*Anomodon Grateloupii* Mont. Ann. d. sc. nat. 1845. p. 100. t. 5. f. 3.

*Patria.* Insula Bourbonis, in cortice arborum: Hb. Grateloup.

Peristomium nobis haud visum. Notis explicatis primo momento a *N. striata* diversa.

**77. *N. laxa*** C. Müll.; *monoica*; caulis repens minutus parce ramosus, ramis brevibus vagis; folia *laxe subdisticha* subsecunda *elliptico-lanceolata* seminervia concava, minute serrulata; perich. minora erecta acuminata seminervia; theca in ped. brevissimo laevi flexuoso basi parce hirta *suberecta* ovata, obscure annulata, operc. brevirostro, calyptra *pilosiuscula*; perist. internum rudimentarium. †.

*Pterogonium laxum* Wils. Lond. Journ. of bot. 1848. p. 276. t. 10. E.

*Patria.* Ad truncos arborum vetustos Chinae ad Chusan: Anderson.

A *N. Grateloupii* proxima characteribus expositis longe distans.

**78. *N. gracillima*** Tayl. (Lond. Journ. of bot. 1848. p. 192.); *monoica*; caulis ascendens subuncialis implexus vage subpinnatim ramosus, ramis gracillimis, apice parum incurvis, viridibus v. stramineis; folia erecto-patentia, sicca arcte appressa, late ovata longius apiculata, *nervo ante apicem evanido, integerrima, basi margine reflexa*; perichaetia pallida lucida, ad basin ramorum oriunda; theca erecta inaequalis cylindrica, ore contracta; perist. d. ext. pallidi, basi linea longitudinali opaca notati, int. pallidi setacei. †.

*Patria.* Ad arbores m. Pichincae Andium Quitensium: W. Jameson, Dec. 1846.

Habitus *N. filiformis*, sed notis cursive impressis longe distincta.

**79. *N. pulvinata*** C. Müll.; *monoica*; procumbens gracillima dense pulvinata intricata sordide ferruginea, ramulis teneris tenerrimis apice vix curvatis, *haud unci-*

*natis*, viridissimis v. lutescentibus valde divisa; folia caulina *appressa*, humore erecto-patula, parva, *haud secunda*, *oblonga obtuse-lanceolata*, carinato-concava, integerrima, nervo tenerrimo ad medium evanido, margine erecto, cellulis *grosse ellipticis*, utriculo primordiali laterali repletis, subpellucidis, submollibus; perich. multo majora vaginantia, elongate areolata, *lutea*, *robusta*, *obtuse acuminata*; theca in ped. *brevi flavido* laevi carnosulo erecta *ovalis brevicolla*; perist. d. ext. *tenuis albidus*, *dense trabeculati laeves* linea longitudinali vix exarati, *breviter anguste lanceolati*, int. in membrana *brevissima* flavida ciliaeformes carinati articulati flavidi laeves solidi; operculum *obtuse conicum*.

*Leskea pulvinata* Wahlenb. Fl. Lapp. 1812. p. 369. — Brid. II. p. 316. — *L. subnervis* Schw. Suppl. I. II. 1816. p. 176. t. 85! — Brid. II. p. 307.

*Patria.* Lapponia inferior, locis subhumidis, ad populorum radices et truncos, prope Kemi passim copiose: **Wahlenberg**. In Tirolis australis montibus legit **Lehmann**. In Anglia ad truncos salicum prope York legit **Spruce**!

*Hypno polycarpo* primo adspectu haud dissimilis, characteribus autem explicatis toto coelo distans, *Neck. striatae* affinior et species distinctissima atque rarissima.

Non satis nota.

1. **Pterogonium perpusillum** De Not. (Spicil. p. 12 et Syllab. Musc. p. 84.); dioicum; late cespitosum; caulis repens vage ramosus gracillimus filiformis viridissimus, ramis simplicibus directione variis; folia caulina imbricata, madore patentissima, anguste lanceolato-acuminata acutiuscula, carinata, subintegerrima, nervo brevissimo obsoleto, margine ubique erecto, cellulis minutiusculis ellipticis dorso subpapillosis virescentibus, alaribus minute quadratis intus granulosus obscuris; perich. convoluto-vaginantia, interiora oblongo-lanceolata acuminata; theca in ped. brevi oblonga erecta, maturitate striata, operc. conoideo obtusiusculo breviori; perist. simplex.

*P. ? subnervium* Spruce in Ann. and Mag. of Nat. Hist. 1849. Musc. Pyr. No. 111.

*Patria.* Ad truncos *Oleae sylvestris* in montanis Sardiniae australis inter Villacidro et Domus novas: De Notaris 1835. In Pyrenaeis pr. Bagnères-de-Bigorre et Pau sterile leg. Spruce.

Habitus *Fabroniae pusillae* quacum crescit, eo modo ut nudo oculo cum ea commutari possit, praeter vero peristomium etiam foliis compagis firmioris, integris haud cunctanter dignoscitur. *Hypno parvulo* (Clasmatodonti Wils.) haud dissimile. An *Hypnum*, an *Neckera*, ob peristomium nobis haud visum dijudicare nequivimus.

*γ.* Theca longe cylindrica.

80. **N. Eriodon** C. Müll.; *monoica*; late cespitosa, pallide viridis, prostrata, vage pinnatim divisa, *compressiuscula*, tenera, ramulis curvulis laxifoliis; folia *laxissime sparsa*, *patentissima*, late cordato-ovata, breviter acuminata, carinato-concava, tenuiter membranacea, pallidissima, margine infima basi vix revoluta, ubique tenuissime serrulato, nervo tenui ultra medium evanido, cellulis angustissime linearibus, alaribus ad basin vix impressam vix ullis laxiusculis; perich. vaginantia angustiora magis acuminata enervia pellucidius et laxius reticulata; theca in ped. longiusculo tenui laevi purpureo *suberecta elongate anguste cylindrica arcuata*, fusca, exannulata, operculo *turgide conico longissime recte subulato*; perist. d. ext. *lineari-lanceolati capillari-attenuati longissimi*, int. in membrana *elata carinato-plicata reticulata tenera longissimi*, *lineari lanceolati capillari-attenuati carinati solidi*, rugulosi lutei.

*Entopogon cylindricus* C. Müll. in schedulis 1844. — *Eriodon conostomus* Mont. Ann. d. sc. nat. 1845. p. 98! Hist. de Chile. Bot. Crypt. t. 5. f. 2.

*Patria.* Ad cortices arborum Chiles australioris, in Valdivia, Chiloë: C. Gay, Philippi.

Species peristomio interno subbarbuloideo memorabilis solitaria, ad *Neckeras* tamen certe pertinens et vestigiis supra editis facillime cognoscenda.

b. *Folia binervia.*

α. *Cellulae alares quadratae.*

‡. *Laevia.*

81. **N. aurea** C. Müll.; *monoica*; procumbens, *filiformis* inaequaliter pinnata *tenella* lutescens *sericea* compressiuscula; folia sicca dense imbricata appressa, *madefacta* ubique *erecto-potentia*, *angustissime lanceolata*, *longe acuminata acuta*, integerrima caviuscula, nervis brevissimis, margine erecto, cellulis angustissime linearibus *pallidissimis*, alaribus laxe quadratis pellucidis granulosis paucis subventricosis; perich. *caulinis simillima*, laxius areolata, erecta, pauca; theca *minute ovalis*, *ore aequalis*, cum pedunculo elongato *intense rubra* exannulata, operc. minute conico oblique acuminato; perist. d. breviter lanceolati carnosuli pallide rubiginosi tenerrime rugulosi, linea longitudinali vix conspicua, integri, latere pallidius parenchymatosi tenuissime trabeculati, cilia brevissima flavida tenuia.

*Leskea aurea* Harv. Lond. Journ. of bot. II. 1840. p. 16. — *Pterigynandrum aureum* Brid. II. p. 180. — *Pterogonium aureum* Hook. Musc. Exot. t. 147.

*Patria.* Nepal Indiae: D. Gardner.

Peristomium *N. Abyssinicae*; habitus tenellus.

82. **N. longisetacea** C. Müll.; *monoica*; *tenuissime* filiformis repens flexuosa, ramis breviusculis *subteretibus* compressiusculis sordide viridibus *magis* ascendentibus *rigidis*; folia caulina *breviora*, *latius lanceolata*, *brevius acuminata*, magis viridia, cellulis alaribus magis planis; pedunculus *longissimus*, purpureus, theca *cylindracea longiuscula angusta*, *fuscata* exannulata, operc. conico oblique acuminato; perist. d. *lanceolato-subulati*, *distincte articulate trabeculati*, pallide rubiginosi, *apice pallidiores*, *distinctius rugulosi*, linea media vix conspicua, latere *basi tantum latius* parenchymatosi pallidiores, cilia in membrana *distinctius emersa tenuissime subulata perfecta* *valde evoluta nodosiuscula aurantiaca rugulosa integra plana.*



*Patria.* India orientalis, Bombay: Kegel communicavit.

Notis, litteris cursivis expressis, a *N. aurea* proxima differt.

83. *N. repens* Schw. (Suppl. III. I. 2. c. perist. delineato in t. 246.); *dioica*; longe repens, ramis brevibus *attenuatis subjulaceis* pinnatus, intertextus plus minus compacte cespitosus, *pallide viridis v. lutescens sericeus*; folia caulina dense imbricata, humore erecto-patentia, anguste lanceolato-acuminata acuta integerrima, margine *ubique parum revoluta*, cymbiformi-concava, cellulis brevibus anguste linearibus, *basi aureis*, alaribus quadratis pellucidis paucis *inferne aureis*, nervis obsoletis brevissimis; perich. vaginantia longius acuminata teneiora; theca in ped. elongato purpureo *minute elliptica* microstoma, *leptodermis pallide fuscidula*, exannulata, operc. breviter obliquiuscule rostrato rubente; perist. *N. longisetaceae*, cilia *laevia carinata dentes aequantia*, in *membrana haud emersa*.

*Isothecium repens* Spruce in Ann. and. Mag. of Nat. Hist. 1849. Musc. Pyren. No. 92. — *Leptohymenium repens* Hmp. Linn. XX. p. 83. — *Anomodon repens* Hüb. Musc. p. 558. — *Neckera sericea* Fröhl. in Brid. Sp. Musc. II. p. 40. — *Maschalocarpus repens* Spr. Syst. Veget. IV. I. p. 159. — *Pterigynandrum repens* Brid. II. p. 183. — *Pterogonium repens* Schw. Suppl. I. I. p. 100. t. 27. — *Bruchia repens* Hsch. in Regensb. bot. Zeit. 1825. 2. Beilage p. 10.

*Patria.* Ad truncos arborum, praesertim betularum et abietum, in tectis lignosis atque stramineis, ad sepimenta etc., rarius in terra, hic illic per regiones montosas praesertim alpestres Germaniae, Helvetiae, Galliae et Norvegiae; in castaneis Pyrenaeorum; in America septentrionali ex Sullivant haud rara. — *Ex auctumno usque ad Junium*.

Pl. mascula floribus turgide gemmaceis creberrimis veluti nodosiuscule pinnata. — *Hypno polyantho* similis et a *N. aurea* proxima notis illustratis facile distinguitur; cave tamen, ne species ob cellulas alares flavidas ad *Pterogonia* revoces.

84. **N. dentata** C. Müll.; *monoica*; prostrata *arclissime compacta et intertexta*, repens, ramis *tenuibus brevibus multis dense foliosis* pinnata, luride viridis; folia caulina erecto-patentia lanceolato-acuminata integerrima obsoletinervia, cellulis angustis, alaribus laxe quadratis pellucidis; perich. longius acuminata vaginantia, externa minora; theca in ped. flexuoso longo ferrugineo-fusco rigido erecta, brevis *subturgide* oblongo-ovalis, ore constricta, ferrugineo-badia, operc. minute conico obliquiusculo, annulo nullo; perist. *N. Abyssinicae*. †.

*Leptohymenium dentatum* Schw. Sppl. IV. t. 322. — *Pleuropus dentatus* Griffith l. c.

*Patria.* Prom. b. spei.

Perist. internum auctor non descripsit et praetervidit; ex analogia *N. aureae* et *longisetaceae* proximarum specierum haud deerit.

85. **N. brachyclada** C. Müll.; *monoica*; tenella pusilla compacte cespitosa ascendens, ramis *brevibus rigidissimis* tenuibus, *subjulaceis acutiusculis* parum curvatis sordide fuscescentibus subpinnata; folia caulina dense imbricata, humore patentia, anguste lanceolato-acuminata, profunde concava, *marginē usque ad acumen distincte reflexo* integerrimo, cellulis brevibus anguste linearibus, basi flavidis, alaribus paucis minute quadratis pellucidis, inferne flavescentibus, nervis vix ullis maxime brevibus flavidis; perich. latiora, longius acuminata, cellulis longioribus, basi fuscescentibus; theca in ped. longiusculo rigido purpureo, superne *in collum angustissimum incrassato angustissime cylindracea* brevis, erecta exannulata, pallida dein fusca, operc. obliquiuscule acuminato; perist. minutum: dentes breves angusti lanceolati, linea media vix ulla exarati, pallide aurantiaci, latere pallidiores, *cilia vix breviora tenuissima rigidissima stricta subsimplicia intensius colorata*.

*Pterogonium ascendens* Schw. Suppl. III. 1. 2. t. 243 c. perist. simpl. false observato. — *Pterigynandrum brachycladon* Brid. II. p. 185. excl. *Pterogon. decumbente* Schw. — *Leptohymenium ascendens* Hmp. in litt.

*Patria.* — America sept., Massachusett: Torrey, 1820. In Pennsylvania, ad trunc. putridos primus legit Mühlenberg.

Flores masc. turgidi.

86. **N. trichoclada** C. Müll.; *monoica?* prostrata implexa vage ramosa, ramis *tenuissimis capillaribus subincurvis* pallide viridibus; folia caulina laxè imbricata erecto-patentia, e basi cordata amplexante lanceolata acuminata subdenticulata enervia (?); perichaetia ramis latiora, foliis dense appressis, internis elongate acuminatis; pedunculi sparsi gracillimi laeves; theca erecta ovata; perist. dentes brevissimi truncati. †.

*Pterogonium trichocladum* Tayl. Lond. Journ. of bot. 1847. p. 336.

*Patria.* Monte Pichincha Andium Quitensium: W. Jameson, Nov. 1846.

Ex animadv. auctoris rami illis *Hypni Halleri* Hdw. aemulantur, sed tenuiores et folia (basi flavida et revera enervia?) haud recurva. Peristomium ob thecas deoperculatas incomplete observatum.

††. *Papillosa.*

87. **N. filiformis** C. Müll.; *dioica*; dense cespitosa, ramis *tenuissime filiformibus* arcuato-curvatis pallide viridibus longis prostratis, rigidiusculis; folia caulina appressa, ovato-lanceolata acuminata, margine usque fere ad apicem paulisper revoluta, tenerrime erose denticulata, cellulis densissimis angustissimis brevibus vix conspicuis, ob papillas teneras scaberrimis, basi aureis, alaribus *incrassate quadratis minutis paucis*, nervis brevibus; perichaetia turgide cylindrica, foliis vaginatis tenerioribus longius acuminatis, laevibus; theca in ped. elongato purpureo gracillimo angustissime cylindrica longiuscula pallida, microstoma, annulata, operc. oblique rostrato; perist. dentes *ciliaeformes breves albidii irregulares nodosiusculi*, fissura notati, cilia *tenerrima fugacissima* paullo breviora.

*Leptohyemenium filiforme* Hüb. Musc. p. 552. — *Pterogonium caespitosum* Engl. Bot. t. 2526. — *Pt. filiforme* Schw. Suppl. I. I. p. 100. — *Maschalanthus filiformis* Schultz. Fl. Starg. p. 356. — *Grimmia filiformis* Web. et Mohr Taschb. p. 150. — *Neckera decipiens* eor. l. c. p. 241. — *Maschalocarpus filiformis* Spreng. Einleit. p. 297. — *Leskea cylindrica* Brid. Sp. Musc. p. 60. — *Pterigynandrum filiforme* Hdw. Musc. Fr. IV. t. 7. — *Hypnum filiforme* Timm. Prodr. Fl. Megap. n. 817. — *Encalypta filiformis* Roth. Tent. Fl. Germ. III. p. 155.

*Patria.* Per totam Europam, praesertim montosam et alpestram, ad truncos quercus, fagi, salicis et aliarum arborum, praeterea in saxis, ubi cespites tenuiter effusos efformat, in locis umbrosis. — *Vere.*

### Species an huc pertinens?

1. **Leptohyemenium elajochloron** Łobarz. (in Haidinger's Naturwiss. Abh. I. p. 61.); cespites orbiculato-pulvinulati, radiantes applanati compacti duri, profunde olivaceo-viridantes v. olivaceo-fulvi, *luridi* homomalle intricati; caulis 1—2 uncialis prostratus filiformis pinna-tim vel fasciculatim ramosus, ramis *crassiusculis* teretibus abbreviatis *obtusis* subfalcato-flexuosis *arcuatim incurvis*, apice inflexis; folia caulina undique v. homomalle dense, *humore tumide et quasi bullate imbricata*, *obovata obtuse oblique* apiculata, *crassiuscula*, fornicate concava, *echinate papillosa*, *apice erose denticulata*, nervo nullo, v. basilari, v. ultramedio, v. debili gemello, cellulis linearibus *incrassatis* densis, basi laxioribus, margine *explanato* v. *involutaceo*. †.

*Patria.* Halicia, in Beskidorum orientalium plaga alpestri sylvigera, in ditione amplexa scaturiginibus fluminum Stryj et Latureza; ibidem in summo cacumine alpibus Huśła, elevatione 5000 pedum, ubi ad saxa arenosa denudata aridissima societate *Umbilicariae deustae* et *Parmeliae ventosae* cespites atros profert et frequenter degit; in rupestribus humidis vallis Tatricae Koźzielisko: de Łobarzewski. Ex Helvetia nomine *Hypni alpestris* quondam Schleicher fide auctoris edidit.

A *Leptoh. filiformi* ex auctore simillimo characteribus cursive impressis differt.

β. Cellulae alares vesiculaeformes.

88. **N. Clastobryum** C. Müll.; *monoica; pusilla tenella, purpureo-fusca nitidula fragilis ascendens*, ramis brevibus subcurvatis patulifoliis superne subpinnata; folia caulina sparsa erecto-patentia, minuta, *anguste oblonga, profunde concava, acumine plano longiusculo dentato terminata*, margine inferne vel ubique fere paulisper revoluta *veluti incrassato*, cellulis oblongis intense fuscis, alaribus superioribus nullis, inferioribus vesiculaeformibus turgidis parvulis *brunneo-fuscis* constricto-reflexis; perich. ext. ovata acuta, int. duplo longiora lanceolata acuminata v. cuspidata; theca in ped. longiusculo tortuoso atrofusco erecta oblonga parva, ore parum constricta, operc. oblique rostrato; perist. *duplicis* d. *N. pulchellae*, cilia in membrana parum emersa breviora, tenera albida irregularia rugulosa.

*Clastobryum Indicum* Dz. et Molkb. Musc. Archip. Ind. p. 43. tab. 16. — *Astrodontium Indicum* eor. Ann. d. sc. nat. 1844. II. p. 299.

*Patria.* Borneo, in arborum cortice: Korthals; Java, in terra humosa summi montis Gédé: Zippelius.

Species pulcherrima et colore primo adpectu propria solitaria.

Sectio V. **Leucodon** Schwägr. Plantae pleurocarpicae et cladocarpicae robustae, caule plus minus robusto et *plus minus tereti densifolio* dichotome v. pinnatim ramoso, foliis ovatis acuminatis, basi exauriculatis, plerumque secundis et plicatis, cellulis *pro more rotundatis*. Theca exserta et immersa.

*Patria.* Per totum orbem terrarum, sed terras calidas praeferentes.

*Cryphaeae* generis *Pilotrichi* sectio analogae.

Subsectio I. **Pterigynandrum**. Caulis *siccitate perfecte julaceus*, perich. longius exsertis, foliis ovate v. lanceolate acuminatis, saepius cochleariformibus, cellulis oblongis v. linearibus elongatis.

*Leptohymenia* affinia cum *Leucodontis* sectionibus caeteris optime conjungentes plantae.

a. *Folia enervia.*

89. **N. pseudalopecura** C. Müll.; *dioica*; caulis primarius repens, rami *tenelli teretes julacei*, breviter divisi; folia caulina densissime imbricata, *humore horizontalia*, late ovata breviter acuminata, concava, integerrima, *parum et laevius plicata*, enervia, margine *parum revoluta*, cellulis medio laminae pallidis recte seriatis, ad margines oblique seriatis obscurioribus, basi fuscis; perichaetia exserta pallida, foliis lanceolato-acuminatis convolutis elongate anguste reticulatis; theca *longius exserta*, *majuscule subrotundo-ovalis microstoma*, exannulata, calyptra laevi, operculo oblique rostrato; perist. simplicis d. ext. breviter lanceolati indivisi, sed linea longitudinali obscura notati, *valde rugulosi*.

*Leucodon julaceus* Sulliv. Musc. Allegh. No. 87. — *Leuc. alopecurus* auct. mult. non Brid.! — *Pterigynandrum julaceum* Hdw. Musc. Fr. IV. p. 51. t. 20. — Brid. II. p. 181. — *Pterogonium julaceum* Schw. Suppl. I. I. p. 100. — *Hypnum julaceum* L. Sp. Pl. p. 1596. — H. *julaceum* perichaetio setas paene aequante. Dill. Musc. p. 321. t. 41. f. 56; ic. perbona!

*Patria.* Per totam Americam septentrionalem, arborea.

Notis cursive impressis a *N. brachypode* affini saepe commutata differt.

90. **N. assimilis** C. Müll.; *dioica*; *N. pseudalopecurae* simillima, sed folia cryphaeacea *margine ubique distincte erecto*, *minime plicata*; theca in ped. *longiuscule exserto* elliptica microstoma.

*Patria.* Prom. b. spei, Grootvaterbosch prope Zwelendam: Pappe; in truncis *Eucleae undulatae* sylvarum prope Adoi (District. Uitenhagen), in edito tertio, Augusto: Ecklon.

Thecam supramaturam vetustam et juniorem tantum vidimus.

91. **N. implexa** C. Müll.; *dioica*; *N. suborthostichae* simillima, maxime compacta, sed *rami distincte teretes obtusiuscule acuti* glauco-virides, inferne pallide ochracei; folia caulina *dense julaceo-imbricata*, splendentia, late oblongo-lanceolata *obtusiuscula*, in mucronem *acutatum producta*, *haud pilifera*, *profunde plicata*, margine vix revoluta; perich. enervia, caulinis latiora, vaginantia, apice denticulata; theca in ped. brevi rufo laevi e cespite vix emerso *distincte ovata* submacrostoma, exannulata, operc. conico acuminato recto mucronato; perist. simplex internum *irregulare*, e dentibus valde inaequalibus laevibus albidis medio perforatis sinuatis in membrana brevi positus compositum.

*Leucodon (Pycnoleucodon) Kunzeanus* C. Müll. Linn. 1844. p. 697. — *L. hexastichus* Mont. Ann. d. sc. nat. 1845. p. 101. — *L. implexus* Kze. in Pöpp. Coll. Pl. Chil. III. No. 274. (51.).

*Patria.* Chile australis ad Antuco: Pöppig, C. Gay, Philippi.

a. *Folia uninervia.*

α. *Thera breviter exserta.*

92. **N. Ohioensis** C. Müll.; *monoica*; caulis primarius repens; rami erecti tenelli subtenues julacei parce breviter divisi sublutescentes; folia caulina squarrosulo-julaceo-imbricata, humore horizontalia, perfecte late ovata, breviter acuminata, concava, integerrima, *haud plicata*, *nervo valido ante apicem evanido*, margine infra apicem latiuscule revoluta, cellulis *ubique aequalibus rotundatis*; perichaetia *minuta* exserta, foliis lanceolato-acuminatis convolutis pallidis elongate pellucide reticulatis; theca *parum exserta minute ovalis* microstoma, exannulata, calyptra longa *pilosa*, operc. *oblique conico*; perist. simplicis *elongate anguste lanceolato-acuminati albidii laeves*, linea longitudinali distincta exarati.

*Leptodon Ohioense* Sulliv. Musc. Allegh. No. 89.

*Patria.* America septentrionalis, circa urbem Columbus in Ohione, rara.

A *N. pseudalopecura* proxima statura multo teneriore et characteribus caeteris designatis differt.

**93. N. producta** Hsch. (in Muscis Capensibus, a Mundt et Maire lectis); *monoica*; caulis longe prostratus filiformis foliosus, ramis assurgentibus humilibus filiformibus *subjulaceis* duris pallide viridibus parce breviter ramulosis; folia caulina *julaceo-appressa*, humore subhorizontalia *N. Ohioensis*, sed *marginē sensim revolutō convexo*, cellulis *oblique seriatis ubique rhomboidalibus*; perichaetia *longiuscule exserta* angustissima, foliis longius acuminatis tenuinervibus incrassate reticulatis; theca *distincte exserta oblongo-cylindrica*, operculo conico *oblique rostrato*, calyptra parum pilosa longe fissa; perist. *N. Ohioensis*.

*Pterogonium productum* Hsch. Linn. XV. p. 138.

*Patria.* Prom. b. spei, Hangklipp: Mundt et Maire, Junio et Julio 1821; Albany: Drège 12. Dec. 1831; in sylvis primaevis prope Krakakamma distr. Uitenhagen: Ecklon; in sylvis montanis pr. Zwellendam: Mundt.

A *N. Ohioensi* proxima notis illustratis discrepat.

**94. N. Indica** C. Müll.; *dioica*; *N. productae* simillima, sed caulis *valde tenuis*; folia magis acuminata, *apice denticulata*, margine convexo *haud plicato-revolutō*, cellulis *minutis oblique seriatis*; perich. *piliformi-attenuata vix denticulata*, tenuinervia; theca breviter exserta oblonga exannulata, operc. convexo acuminato duplo minori obliquo.

*Pterogonium Indicum* Mont. Ann. d. sc. nat. 1842. p. 250.

*Patria.* India orientalis, in truncis arborum soli expositis circa Kaitie in montibus Neelgheriensibus: Perrottet.

**95. N. coronata** C. Müll.; *monoica*; *N. productae* simillima, sed folia *marginē multo latius revolutō adeo, ut utrinque plica exoriatur, profundius concava*; perich. *enervia*, basi *laxe pellucide reticulata*; theca *perfecte cy-*



*lindrica longiuscula*, operc. conico brevi incurve acuminato; calyptra et peristomium *N. productae*.

*Leptodon coronatus* Mont. in D'Orbigny Voy. d. l'Amer. merid. Crypt. p. 108.

*Patria.* Ad cort. arbor. sylvarum provinciae Corrientes prope Iribucua: D'Orbigny.

β. *Theca longipedunculata.*

**96. *N. Domingensis*** Spreng. (in litt. ad Balbis et Brid. II. p. 259.); *dioica*; cespites latissimi penduli elati pallide virides duri; caulis secundarius *elongatus*, *basi indivisa longiuscula* foliosa, sursum *ramis elongatis aequaliter filiformibus julaceis multis pinnato-divisus crassiusculus*, *durus*, *ramulis tenerrimis capillaribus brevibus multis aggregatis obtectus*; folia caulina *julaceo-appressa*, *humore erecto-patentia*, late ovata breviter acuminata, concava, margine *ubique erecto apice denticulato*, *nervo tenui excurrente*, *cellulis angustis pellucidis laxiusculis*, alaribus multis *laxe quadratis majusculis*, *utriculo primordiali valde obscuris planis recte seriatis griseis*; perichaetia longius exserta angustissima pallida, foliis longe lanceolato-acuminatis convolutis longius reticulatis; theca in ped. longiusculo flavido tenero erecta ovata fuscidula.

*Pilotrichum flagelliferum* Brid. II. p. 259. — *Leucodon flagellaris* Bertero in sched. — *Pterigynandrum nudicaule* Brid. II. p. 182? — *Hypnum nudicaule* Schw. Suppl. I. II. p. 223, ex Hispaniola?

*Patria.* Per omnes Antillas et oras vicinas Venezuelae vulgatissima, sed rarissime fertilis, primum a Bertero in Domingo lecta.

Pulcherrima et distinctissima species. Fructus *N. longisetae*.

**97. *N. acuminata*** Hook. (Musc. Exot. tab. 151.); *dioica?* caulis *elongatus repens*; rami ascendentes altiusculi, basi subnudi, sursum in ramulos *crassos longiusculos subsimplices divisi crassi subteretes, vix pinnati*, duri; folia caulina imbricata, madore patula, *latius ovato-acu-*

minata concava, pallide viridia, acumine denticulato, margine erecto, nervo *brevissimo*, cellulis alaribus laxe quadratis *fuscis* paucioribus; perich. lanceolato - acuminata *breviora* enervia subconvoluta; theca in ped. *vix exserto* badio ovato - oblonga microstoma badia.  $\frac{1}{4}$ .

Brid. II. p. 236. — Schw. Suppl. III. I. 2. t. 246.

*Patria.* Nepal: Gardner.

A *N. Domingensi* congenere notis laudatis toto coelo differt.

98. **N. Lagura** C. Müll.; *dioica*; cespites maxime compacti, inferne tomentosi, ramis superioribus liberis *turgidissime julaceis* acutatis brevibus, *viridissimis splendidissimis*; folia caulina *laxe conferta longiuscule cymbiformi-oblonga*, in acumen elongatum subflexuosum *pili-forme attenuata*, nunquam plicata, tenera, margine erecto superne subdenticulato, nervo brevi unico, cellulis elongate anguste linearibus subpellucidis virescentibus subconflatis, alaribus ad basin infimam vix conspicue impressam vix ullis; perich. latiora brevius pilifera vaginantia enervia basi laxius reticulata; theca in ped. *longiusculo* rufo laevi erecta *turgide majuscule oblonga macrostoma* exannulata, operc. conico acuminato recto, calyptra glabra straminea, *perist. simplex N. tomentosae*, sed linea longitudinali fissile.

*Leucodon Lagurus* Hook. Musc. Exot. t. 126. — Brid. II. p. 211. — Schw. Suppl. II. I. p. 121. t. 133.

*Patria.* In Staatenland ad Cap. Horn: Menzies 1787; ibidem et in insula Campbelli antarctica: J. D. Hooker 1842; in monte Tabulari insulae Van Diemen: R. Brown.

A *N. implexa* proxima notis cursive impressis toto coelo recedit.

#### Incertae sedis.

1. **N. Brasiliensis** C. Müll.; *dioica*; caulis repens longissimus vage ramosus flexuosus, ramis sparsis v. subpinnatis simpliciusculis brevibus rectiusculis teretibus ju-

laceis tenuiusculis flavide viridibus nitidis *vage ramosus*; folia *humore et siccitate dense et ventricose imbricata*, e basi decurrente, cellulis alaribus paucioribus pachydermibus parvulis marginalibus pellucidis quadratis *rhomboidalibus*, parum ventrose impressis praeditâ late ovata, profunde concava, recte acuminata, margine erecto subintegerrimo, nervo obsoleto tenuissimo evanido, cellulis angustissime linearibus *subdensis*.

*Antitrichia Brasiliensis* Hsch. Fl. Bras. I. p. 52.

*Patria.* Brasilia, prope Mandioccam, praedium a domino de Langsdorff conditum, in Sierra dos Orgaôs et in districtu adamantium: de Martius.

Flores masc. oblongo-gemmacei, foliis angustius ovato-acuminatis enervibus, antherid. longiusculis, paraphysibus aequalibus. *N. longisetae* similis, sed nervo unico primo momento distincta; a *N. Domingensi* notis expositis jam longe distat.

b. *Folia binervia.*

A. *Caulis apice fasciculatim divisus.*

99. *N. gracilis* C. Müll.; *dioica*; cespites altiusculi duri e viridi lutescentes; caulis repens; rami erecti, *basi longiuscula indivisa foliosa, superne fasciculatim divisi, ramulis iterum fasciculatim divisis brevibus curvatis flagelliformibus julaceis filiformibus attenuatis*; folia caulina dense appressa, madore erecto-patula, e basi *subdecurrente late ovata breviter acuminata*, concava, nervis binis tenuibus breviusculis, margine *ubique erecto apice denticulato*, cellulis *oblongo-ellipticis, alaribus planis permultis incrassatis rhomboidalibus oblique seriatis*; perichaetia exserta, late convoluta, apice subito fere acuminata, integerrima, pallida, longius laxius et pellucidius reticulata; theca in ped. breviusculo rubente laevi erecta *oblongo-cylindracea*, exannulata, operc. conico, calyptra glabra; perist. d. ext. *anguste lanceolati albidii indivisi breves laeves densius trabeculati, int. breviores hyalini subcellulosi*.

*Leptohymenium gracile* Hüb. Musc. Germ. p. 554. — *Pterigynandrum gracile* Hdw. Musc. Fr. IV. p. 16. t. 6. — Brid. II. p. 174. — *Pterogonium gracile* Sw. Musc. Suec. p. 26. — *Grimmia ornithopodioides* Web. et Mohr. Bot. Taschb. p. 148. — *Encalypta gracilis* Roth. Fl. Germ. III. p. 154. — *Hypnum gracile* L. Syst. Veget. p. 952. — *H. cincinnatum* Brotero. — *H. palatinum* Neck. Enum. Pl. Pal. p. 454. t. 1. f. 1. — *H. ornithopodioides* Huds. Fl. Angl. p. 430. — *H. gracile ornithopodioides*. Dill. Musc. p. 328. t. 41. f. 55.

*Patria.* In saxis et truncis arborum per totam Europam temperatam et calidiorem, in Germania australi, per Helvetiam australem, Istriam et Italiam totam insulasque vicinas, per agrum Mediterraneum totum usque ad prom. b. spei et per Galliam australem, Hispaniam, Lusitaniam, Angliam, Daniam et Sueciam; sed rarissime fructificans. — *Februario.*

*N. Domingensi* proxima et e muscis Europaeis pulcherrimis.

### B. *Caulis vage ramosus.*

#### a. *Cellularum alarium series rectae.*

100. **N. teres** C. Müll.; *monoica; dense cespitosa intertexta, ramis pulcherrime julaceis teretibus sericeis sulphureo-viridibus ascendentibus crassiusculis inaequaliter breviusculis subsimplicibus irregulariter intertexte pinnata; folia caulina densissime appressa, latissime ovata obtusa, breviter acuminata, tenera, subpellucide viridia, basi chlorophyllosa, cellulis linearibus angustis, alaribus laxe quadratis chlorophyllosis, dein pellucidis subgranulosis, series regulares rectas efficientibus, nervis brevibus, saepe obsoletis; perich. late vaginantia, stricta, longe lanceolata, pallidissima, cellulis basi tenerrimis laxis, superne veluti conflatis, vix conspicuis, plicata; ped. purpureus.*

*Patria.* Mexico: Galeotti in Hb. de Martens.

Pulcherrima species, notis illustratis facile discernibilis et formis minoribus *N. seductricis* habitu haud dissimilis.

101. **N. straminea** C. Müll.; *dioica*; repens flexuosa *myosuroidea* cladorrhizans, ramis brevibus tenuibus julaceis stramineis mollibus nitidulis ascendentibus curvatis; folia sicca et madefacta julaceo-appressa, caulina late ovata, basi saepe luteo-colorata, ramulina anguste lanceolata breviter acuminata, anguste elliptica, cochleariformi-concava, margine usque ad medium paullo revoluta, apice subdenticulato, nervis brevibus, cellulis angustissime linearibus pallidis, alaribus laxe quadratis pellucidis granulosis; perich. multa dense vaginantia, recta, longius acuminata, basi laxius reticulata, externa minora reflexiuscula; theca in ped. mediocri purpureo longiuscule cylindracea microstoma, pallide fuscata, operc. oblique subrostrato, annulo composito; perist. d. anguste lanceolati pallide aurantiaci dense trabeculati, latere aequales, linea media vix exarati, cilia parum breviora tenera carinata hic illic pertusa pallidiora.

*Patria.* Nepal: Hb. Kunzeanum.

Ramis julaceis myosuroideis stramineis mollibus valde flexibilibus haud fragilibus a *N. julacea* primo visu distinctissima. Magis ad *Leptohymenia* spectans.

b. *Cellularum alarium series obliquae.*

102. **N. longiseta** Hook. (Musc. Exot. t. 43.); *monoica*; longe repens, ramis subteretibus subjulaceis obtusis fragilibus rigidis brevibus inaequalibus pinnata, luteo-viridis splendens, dein subrufescens; folia appressa, latissime ovata, humore patula acumine plus minus longo terminata, concava rigida, margine ubique erecto integerrimo, nervis brevissimis obsoletis, cellulis anguste linearibus brevibus, e basi veluti radiatim exientibus, alaribus creberrimis depresse rhomboidaliter laxe quadratis, series obliquas efficientibus, pellucidis granulosis; perich. late vaginantia longe subflexuose acuminata, tenuiora, basi cellulis ubique laxis, superne in membranam quasi conflatis; thecae in ped. elongatis rigidis plerumque aggregatis purpurascensibus cylindraceo-ellipticae majusculae erectae, fuscidulae, exannulatae, operc. conicis obli-

quis; perist. d. planissimi late lanceolati fragiles pallidi, trabeculis remotis et linea media tenuibus notati, cilia aequalia tenuissima.

Brid. II. p. 228. — Schw. Suppl. III. I. 2. t. 230.

*Patria.* In locis umbrosis m. Quindiu, in Cordillera de los Andes de Cundinamara: Humboldt et Bonpland.

**103. N. cylindricaulis** C. Müll.; *monoica*; *N. longisetae* simillima, sed caulis ramis *perfecte teretibus, amoene julaceis aequalibus longiusculis rigidissimis eleganter pinnatus, rufescenti-viridis sericeus; folia sicca et madefacta densissime appressa, e reliquis cum perichaetialibus illis N. longisetae simillima; theca turgide ovalis, operc. conico obliquo, annulo nullo; perist. d. breviores lanceolati, e lamina duplici inaequali compositi, lamina externa angustissima pallide aurantiaca articulata, l. interna ad latera multo latius prominente pallidior, cilia quam maxime tenera tenuissima fugacissima.*

*Neckera longiseta* Hsch. in Musc. Mex. No. 1086. — *Neckera julacea* C. Müll. Linn. XIX. p. 214. — *Leptohymenium longisetum* Hmp. Linn. XX. p. 83.

*Patria.* Mexico, pr. Jalapam: Deppe et Schiede. Venezuela, Caripe: Moritz No. 120 et 120. a.; Cumbre de Caracas, ad lapides, soc. *N. nigrescentis*, altitud. 5000 pedum: Wagner, 9. Sept. 1849.

**104. N. squarrosa** C. Müll.; *monoica*; vage ramosa procumbens laxè intertexta, *gracilis, humore crassiuscula, ramis flexuosis curvatis squarrosulo-julaceis filiformibus brevibus remotis inaequaliter pinnata, e viridi lutescens, dein apicibus foliorum aurantiaco-coloratis parum rufescens; folia humore amoene dense squarrosa, late subrotundate ovata, breviter acuminata, breviora, cochleariformi-concava, margine ubique erecto, superne obsolete denticulato, nervis et cellulis N. longisetae; perich. anguste vaginantia longe reflexe acuminata, basi cellulis laxis superne in membranam quasi conflatis, saepe intense aurantiacis; theca in ped. mediocri purpurascente*

rigido plerumque solitario erecta, *breviter* turgide elliptica, ore coarctata, leptodermis fuscidula, operc. conico acuminato rectiusculo, annulo nullo; perist. d. late lanceolati, aurantiaci, *inferne valde striatuli, diaphane articulati* et linea media *diaphana* exarati, superne laeves subfissiles, cilia *valde irregularia latiora erosa brevissima* flavida.

*Leptohymenium julaceum* Hmp. Linn. XX. p. 83. — *Neckera julacea* C. Müll. Linn. XIX. p. 214 et Wils. in Gardner Musc. Bras.

*Patria.* Venezuela, Caripe: Moritz No. 117 et 118. 1845. Brasilia, Serra de Santa Brida, prov. Goyaz: G. Gardner No. 77. m. Febr. 1840.

A *N. cylindricaule* et *longiseta* proximis ob vestigia excellentia distinctissima.

105. **N. squarrosa** C. Müll.; *monoica*; *N. squarrosae* simillima, sed rami *tenuissime filiformes, minus squarrosi*; folia caulina *minora, cellulis ellipticis acutis veluti incrassatis*, alaribus creberrimis; perich. *angustissime longe acuminata erecta*; theca in ped. flavido rubente turgide elliptica *minor*; perist. d. *brevissimi anguste concolori-aurantiaci, haud striatuli*, fissura apice parum secedente, dense trabeculati, cilia *tenerrima parum breviora fugacissima* albida.

*Pterogonium squarulosum* Mont. Lond. Journ. of bot. 1845. p. 9.

*Patria.* Insulae Philippinenses, ad corticem arborum: Cuming Coll. No. 2201. Java: Hb. Hampean.

106. **N. julacea** Schw. (Suppl. III. I. 2. t. 255.); *monoica*; habitus *N. cylindricaulis*, sed rami amoene virides *squarroso-foliosi*; folia caulina *siccitate apicibus patentibus*, integerrima; perich. *erecta, interna pallidissima*; theca in ped. ferrugineo *longiuscule anguste cylindracea*; perist. d. late lanceolati obtusiusculi, fusco-badii, apice lutescentes, turgidi rigidi, dense trabeculati, linea longitudinali distincte conspicua exarati, cilia *perangusta dentibus trientem breviora, basi connata albida integra*. †.

*Pterogonium julaceum* Hook. l. c.†

*Patria.* Nepal Indiae.

Subsectio II. **Harrisonia** Spreng. Hmp. — Caulis teres; *theca in ramo brevi veluti terminalis*; folia cochleariformi-concava, saepe leviter plicata, cellulis ad parietes crenulatis.

*Cryphaeae Dichotomariae generis Pilotrichi habitu simillimae plantae.*

A. *Folia enervia.*

a. *Folia panduraeformia.*

**107. N. Humboldtii** C. Müll.; dioica; caulis elongatus julaceus crassiusculus, ramis cuspidatis julaceis brevibus v. iterum divisis eleganter pinnatus, lurido-viridis dein ferrugineus; folia caulina julaceo-appressa, apicibus patentibus squarrulosa, humore magis erecto-patentia, perfecte panduraeformi-oblonga, in pilum longiusculum flexuosum tenue attenuata, margine basi anguste revoluta, superne subinvoluta subdenticulata, nervis nullis, cellulis elongatis angustis prosenchymaticis carnosis lurido-viridibus, ad parietes maxime crenulatis, opacis, basi fuscis laxioribus haud crenulatis, alaribus multis perfecte quadratis laxis amoene et intense fuscis, ventrem distinctissimum sistentibus, cellulis inde in limbum ad apicem productum fuscum angustum incrassatis; perichætia ramis brevibus aemulancia, foliis imbricatis, caulinis similibus, sed angustis longius piliferis; *theca* in ped. mediocri rufo laevi erecta maxime globosa macrostoma, siccitate sulcata, badia, exannulata, gymnostoma, operc. convexo oblique subulato, calyptra glabra parva.

*Harrisonia Humboldtii* Spreng. Syst. Veg. IV. I. p. 145. — *Anoetangium Humboldtii* Brid. II. p. 165. — *Hedwigia Humboldtii* Hook. Musc. Exot. t. 137. — Schw. Suppl. II. p. 9. t. 104.

*Patria.* In montis Quindiu apricis frigidis, altitudine circiter 9480 pedum in regno Novo-Granadae: Humboldt et Bonpland. In Guadeloupe: Pastor Forsström. E Mexico quoque habemus.

Muscus pulcherrimus et memorabilis, e structura folii *Rhacomitriis* affinis.



*Obs.* Ex insulis antarcticis Eremitae et Aucklandi ab J. D. Hooker lectam et ex insula Bourbonis, loco Plaine des Chicots ad rupes graniticas a Bory St. Vincent relatam et in Hb. Bridelii nomine *Hypni purpurascens* asservatam pusillam, sed sterilem vidimus. An igitur specimina haecce ad speciem praecedentem revocanda sint, posteri observent. Folia magis convolutacea reperimus. In insulis maris pacifici Forster quoque legisse dicitur.

b. *Folia oblongo-ovata.*

α. *Theca exserta.*

**108. N. secunda** C. Müll.; *monoica*; cespites laxi, fusco-lutei rigidi; caulis repens; rami erecti inferne nudi apicem versus foliosi teretes obtusi, ramulis brevibus simplicibus v. longioribus iterum parce divisis, teretibus inordinate ramosi, flagellis tenerrimis interdum praediti, dense foliosi; folia caulina dense appressa saepe secunda, humore erecto-patentia subhorizontalia, e basi decurrente subreflexa *angustiore oblongo-ovata* breviter acuminata, concava, integerrima, enervia, vix plicata, margine *ubique fere valde revoluta*, cellulis basi longis fuscidulis, sursum sensim minoribus dolioliformibus, latere crenulatis, luteo-viridibus incrassatis duris, alaribus ad basin decurrentem revolutam incrassate quadratis, sursum minoribus, omnibus tenerrime papillosis; perichaetia in ramo breviter elongato exserta pallida cylindrica, foliis vaginantibus longiuscule oblongo-acuminatis, *superne denticulatis, strictis*; theca in ped. breviter exserto laevi rufo erecta elliptica microstoma exannulata badia, operc. longe subulato obliquo, calyptra glabra cucullata pallida.

*Braunia secunda* Br. Europ. Fasc. 29 et 30; *Braunia*; p. 3. — *Harrisonia secunda* Spreng. Syst. Veget. IV. I. p. 145. — *Anoectangium secundum* Brid. II. p. 165. — *Hedwigia secunda* Hook. Musc. Exot. t. 46. — Schw. Suppl. III. I. 1. t. 209.

*Patria.* In regni Mexicani montosis apricis, juxta Toluccam ad pedem montis perpetua nive obtecti, regione frigida, altitudine 9840 pedum: Humboldt et Bon-

pland; in saxis pr. Malpays de la Joya societ. *Bryi argentei*: Schiede, Sept. 1829; in locis haud designatis: C. Ehrenberg in societate *Pilotrichi subrevoluti* legit.

A *N. alopecura* simillima notis cursive impressis certe differt.

**109. N. alopecura** C. Müll.; *monoica vel polygama*, *N. secundae* simillima, sed folia *late ovata* breviter acuminata, margine *vix vel parum revoluta*; perich. late vaginantia obtusiuscula, *acumine brevi subfulcato integerimo*; theca et caetera *N. secundae*.

*Braunia sciuroides* Br. Europ. Fasc. 29 et 30; *Braunia*; p. 3. t. 1. — *Hedwigia sciuroides* De Not. Syllab. Musc. p. 95. — *Anoectangium sciuroides* Bals. et De Not. Pugill. n. 23. — *Leucodon alopecurus* Brid. II. p. 214! — *Gymnostomum ciliatum var. nudum* Schleich. in schedulis!

*Patria.* In Helvetiae locis accuratius non designatis: Schleicher; ad rupes in valle Levantina Helvetiae Ticinensis: Brombilla.

Planta rarissima et rarissime fructifera.

**110. N. macropelma** C. Müll.; *monoica*; *N. secundae* simillima, sed folia *N. Schimperianae*; perich. longiuscule vaginantia lanceolato-acuminata, *valde plicata*, margine *latissime revoluta*, cellulis basi laxissimis; theca in pedunculo *elongato* tortili rufo laevi erecta *cylindrica stricta* longiuscula truncata.

*Anoectangium (Hedwigia) Indicum* Mont. in schedulis. — *A. secundum* Mont. in Musc. Neelgher. Ann. d. sc. nat. 1842. n. 32. — *Hedwigia secunda* Grev. in Hb. Hamp.

*Patria.* India Orientalis, in montibus Neelgheriensibus, ad rupes basalticas prope Kaitie: Perrottet.

**111. N. Schimperiana** C. Müll.; *monoica*; *N. secundae* simillima, sed rami crassiores subcompressi, folia e basi decurrente *latissime ovata*, *longius acuminata*, distinctius plicata, grossius areolata, margine ubique maxime revoluta; perich. *N. alopecurae*; theca in ped. parum longiore *anguste cylindrica arcuata*, oblique subulate operculata.

*Braunia Schimperiana* Br. Europ. Fasc. 29 et 30; *Braunia*; p. 3. — *Harrisonia Schimperiana* Hmp. in Excurs. in *H. squarrulosam* Ic. Musc. t. 19. — *Hedwigia Schimperiana* Br. et Sch. in Musc. Abyss.

*Patria.* Abyssinia, in alpebus Simensibus: W. Schimper copiose legit 1840.

**112. N. diaphana** C. Müll.; *monoica*; *N. secundae* simillima, sed folia humore perfecte horizontalia, distinctius plicata, e basi angustiore latissime cochleariformi-ovata, acumine diaphano chlorophyllo omnino destituto longiusculo, margine ubique late convexo et angustissime distincte revoluta; perichaetia distincte convoluta exserta, foliis anguste vaginantibus lanceolato-acuminatis, basi laxe reticulatis; pedunculus laevis rufus.

*Hedwigia Schimperiana* Hmp. in Hb. Kunzeano.

*Patria.* Prom. b. spei: Pappe.

Fructum non vidimus.

**113. N. sphaerocarpa** C. Müll.; *monoica*; latissime cespitosa robustissima ramosissima, habitu *N. secundae*; folia ovato-acuminata, valde plicata, margine angustiuscule revoluta; perich. *N. macropelmatis*; theca breviter pedunculata maxime globosa, operculo depresso breviter oblique rostrato.

*Hedwigidium squarrulosum* Br. Europ. Fasc. 19 et 20; *Braunia*, p. 3. — *Harrisonia squarrulosa* Hmp. Ic. Musc. t. 19.

*Patria.* Mexico: C. Ehrenberg. E Guatemala copiose communicavit Kegel.

Pulcherrima species.

β. Theca immersa.

**114. N. imberbis** C. Müll.; *monoica*; late cespitosa crassiuscule teres, parce breviter ramulosa humilis, densifolia ferruginea, apicibus viridibus obtusis; folia caulina densa appressa, humore subhorizontalia, haud secunda, anguste ovato-acuminata, margine late revoluta, haud plicata molliora; perich. longius vaginanti-lanceolato-acuminata, plicata inferne anguste elongate, basi laxe,

apice incrassate quadrata reticulata; theca *immersa brevissime pedunculata, subglobosa v. obovata turgida* microstoma, gymnostoma exannulata, operc. brevi conico obliquo, calyptra parva cucullata, saepius fissa.

*Hedwigia imberbis* Spruce in Musc. Pyr. No. 338. Ann. and Mag. of Nat. Hist. 1849. p. 187. — *Hedwigidium imberbe* Br. Europ. Fasc. 29 et 30; Hedwigidium; p. 3. t. 1. — *Schistidium imberbe* Nees et Hsch. in Br. Germ. I. p. 99. t. 8. — Brid. I. p. 118. — *Gymnostomum imberbe* Engl. Bot. t. 2237. — *Anoetangium imberbe* Hook. et Tayl. Musc. Brid. p. 14. t. 6. — *A. ciliatum v. rufescens* W. Arn. Disp. p. 11.

*Patria.* Ad rupes prope Glengariff Hiberniae: Miss Hutchins, Wilson; in insula Osteröe Finmarkiae: Blytt; in Pyrenaeis ad Bagnères de Bigorre in rupib. porphyraceis: W. P. Sch., ad saxa granitica pr. Laruns: Spruce et in rupib. schistosis pr. Pouzac et Gazos: Philippe. — *Auctumno.*

Planta rarius occurrens notis cursive impressis ab omnibus congeneribus sectionis hujusce distinctissima.

### B. *Folia uninervia.*

115. **N. Drummondii** C. Müll.; *monoica?* *N. imberbi* simillima; caulis laxe cespitosus erectus subbiuncialis ex olivaceo nigricans, ramis siccitate acutis, ramulis saepius flagelliformibus gracillimis; folia caulina erecto-appressa, humore patentia, late ovata apiculata concava, ob papillas margine tenerrimas subcrenulata, integerrima, concava, margine recurva, *nervo latissimo percursa*; perichaetia conspicua subexserta, foliis caulinis similibus, sed latioribus rectoribus magis oblongis; theca in pedunculo aequilongo parum curvulo subexserta, rotundato-ovata, siccitate rugoso-striata, operculo rostellato. †.

*Schistidium Drummondii* Taylor. Lond. Journ. of bot. 1846. p. 57. — An *Sch. Australe* Wils. Ms. huc pertineat, putemus. Auctor ipse l. c. p. 452. *Neck. imberbis* varietatem declaravit, quod dubitamus.

*Patria.* Nova Hollandia, Swan River: James Drummond.

A *N. imberbi* nervo praesente primo momento differt.

116. **N. ambigua** C. Müll.; dioica? caulis *semipedalis pendulus crassiusculus densifolius lurido-viridis, inferne ramis longiusculis similibus 1—2 pinnatis superne simplicibus brevibus 1—3 pinnatus, ramosissimus; folia conferta brevia, oblongo-ovata obtusa, cochleariformi-concava et profunde plicata, in acumen breve reflexiusculum producta, integerrima, nervo unico tenui ultra medium evanido, margine latiusculo revoluta subdeplanato, e cellulis longioribus laevibus flavidis veluti limbato, cellulis brevibus densissimis valde opacis tenerrime scaberimis, luride viridibus, basi fuscis, alaribus incrassate quadratis rectis fuscidulis apicem versus longioribus flavioribus laevibus in limbum marginis exientibus; perich. similia longiora castaneo-lutescentia; theca immersa subglobosa vix conspicua, rufo-fusca, operc. planiusculo mammillato; perist. simplicis d. horizontales lanceolati lutei trabeculati.*

*Cleistostoma ambiguum* Brid. I. p. 154. — Schw. Suppl. III. II. 1. t. 266. — *Pterogonium ambiguum* Hook. Trans. of Linn. Soc. Lond. IX. p. 310. t. 26. f. 4.

*Patria.* Nepal, in arboribus: Buchanan.

Fructum non vidimus. E foliorum *N. Harveyanae* affiniore structura congeneribus hujus sectionis species subdissimilis; ex analogia tamen rami fertilis longioris huc posuimus.

Subsectio III. **Euleucodon.** Caulis teres v. homomallophylus, dichotome divisus, *perichaetiis longe exsertis, foliis ovate v. lanceolate acuminatis concavis distincte plicatis.*

a. *Folia enervia.*

α. *Folia ovato-acuminata.*

117. **N. sciuroides** C. Müll.; dioica; cespites latissimi altiusculi; caulis primarius repens, secundarius erectus, foliis dense imbricatis crassiusculus *teres, parce divisus, ramis plus minus curvatis, inferne ferrugineis superne viridibus v. lutescentibus; folia caulina plus minus homomalla, late ovato-acuminata curvata; robusta majuscula, enervia, pluries distincte plicata, concava, mar-*

gine inferne late revoluto subintegerrimo, cellulis densis oblongis, basi fuscis, alaribus permultis ad alas revolutas *rhomboidalibus quadratis*; perichaetia longiuscule cylindracea exserta pallida, foliis longe convoluto-acuminatis, elongate anguste areolatis; theca in ped. *breviusculo* recto rufo laevi erecta *elliptica microstoma* fusco-badia, dein nitida, imperfecte annulata, operc. *conico brevi recto*, calyptra longa albida laevi; perist. d. breviter lanceolati valde bifidi fragiles albidi laeviusculi.

*Leucodon sciuroides* Schw. I. II. p. 1. et Suppl. II. I. p. 82. t. 125. — Brid. II. p. 208. — *Pterigynandrum sciuroides* Brid. Sp. Musc. I. p. 134. — *Pterogonium sciuroides* Turn. Musc. Hib. p. 32. — *Fissidens sciuroides* Hdw. Sp. Musc. p. 161. — *Dicranum sciuroides* Sw. Musc. Suec. p. 32. — *Cecalyphum sciuroides* P. B. Prodr. p. 51. — *Fuscina sciuroides* Schrank. Baiers. Fl. II. p. 452. — *Trichostomum sciuroides* Web. et Mohr. Taschb. p. 132. — *Hypnum sciuroides* L. Sp. Pl. p. 1596. — *H. arboreum sciuroides* Dill. Musc. p. 309. t. 41. f. 54.

*β. cylindricarpa*; caulis crassior vix homomallophyllus, folia breviora vix obliqua, theca longior cylindracea subarcuata, perist. plus minus bifidum. *Leucodon Morensis* Schw. Suppl. I. II. p. 2 et II. I. p. 82. t. 125. — Brid. II. p. 210.

*Patria.* Per totam Europam, ad arbores vetustiores et rupes, raro tamen fertilis. Var. *β.* in monte Mora Helvetiae a Schleicher detecta, praeterea per Europam totam australem hic illic observata. — *Vere.*

Caulis gemmas multas saepe nascens, igitur sterilis.

118. *N. brachypus* C. Müll.; *dioica*; *N. sciuroidi* simillima, sed perichaetia *apice thecam vix exsertam veluti ocreate includentia*; theca breviter ovalis urceolata, dentibus angustis indivisis.

*Leucodon brachypus* Brid. II. p. 211. — C. tab. in Hmp. Ic. Musc. t. 15. — *L. ocreatus* Brid. Hb.

*Patria.* Per Americam septentrionalem totam vulgaris, in montosis arborea, ibidem *N. sciuroidi* respondens.

119. *N. curvirostris* C. Müll.; *dioica*; *N. sciuroidi* simillima, sed caulis *compressiusculus*; folia maxime se-

*cunda laxe imbricata*, magis acuminata; theca in ped. breviter exserto flavido dein rubente laevi turgide ovalis microstoma, subannulata, operculo oblique rostrato; perist. d. ext. latius lanceolati robustiores perforati, interni: membrana brevissima truncata.

*Leucodon curvirostris* Hmp. Ic. Musc. t. 16.

*Patria.* Mexico: C. Ehrenberg.

**120. N. Cryptotheca** C. Müll.; cespites robusti laxi; caulis repens, ramis assurgentibus *crassis robustis densifoliis* altiusculis luteo-viridibus parce divisis flexuosis, obtusis humore apice stellatis; folia caulina *densissime imbricata* parum secunda, humore patula, late ovata breviter acuminata, concava, robusta *stricta* majuscula, margine ubique late revoluta integerrimo v. crenulato, plicis distinctis pluribus, nervis nullis, cellulis anguste oblongis incrassatis recte seriatis, basi fuscis, alaribus *minute rotundatis* oblique seriatis; perichaetia exserta pallida elongata cylindrica, foliis longe lanceolato-acuminatis convolutis integerrimis; theca in ped. *sessili v. parum exserto turgide ovalis*, operc. conico *acuminato* rectiusculo; perist. simplicis dentes externi breves lanceolati obtusiusculi, linea longitudinali hic illic secedente exarati, albidi articulati laeves.

*Leucodon Cryptotheca* Hmp. Ic. Musc. t. 17.

*Patria.* Mexico: C. Ehrenberg.

A *N. sciuroide* notis cursive impressis certe distincta, a *N. brachypode* statura robustissima jam primo aspectu distans. Forte dioica.

**121. N. Canariensis** Brid. (Sp. Musc. II. p. 29.); dioica; caulis *tenuis repens foliosus pendulus*; rami brevibus simplicibus v. elongatis parce divisis, omnibus *teretibus crassis curvatis acutatis*, caudam vulpinam veluti referentibus, *pulchre luteo-ferrugineis sericeis*; folia caulina arctissime appressa vix secunda, humore valde patula, late ovato-lanceolata acuminata, *maxime plicata, stricta, tenuiter membranacea*, scariosa, enervia, margine ubique late revoluta, cellulis anguste linearibus pallidis

incrassatis rectis, basi amoene flavidis v. fuscis, alaribus permultis *maxime incrassatis minute rotundatis recte seriatis* coloratis; perichaetia *longissime cylindracea* attenuata pallida, foliis *longissime lanceolato-acuminatis convolutis enervibus*; theca in ped. *elongato* laevi flexuoso fusco erecta, *e collo elongato globoso-ovalis microstoma*, exannulata, nitide badia, operc. *longe oblique rostrato*, calyptra elongata ventricose subulata glabra lutescente; perist. *duplicis d. ext. breves lanceolati albidi spongiosi*, madore extrorsum stellato-recurvi trabeculati integri, interni: membrana brevis albida spongiosa.

*Astrodontium Canariense* Schw. Suppl. II. I. p. 128. t. 134 et Brid. II. p. 220. — *Plaubelia Canariensis* Brid. olim. — *Leucodon Canariensis* Schw. Suppl. I. II. p. 3. — *Hedwigia Schmidtii* Hook. Musc. Exot. t. 170. — *Hypnum Canariense* Brid. Musc. Rec. II. II. p. 145. — *Hypnum flagellis instar caudae vulpinae*. Dill. Musc. p. 306. t. 39. f. 41.

*Patria.* In omnibus insulis Canariis, praesertim in Teneriffae sylvis prope Lagunam, truncos arborum vetustos habitans: Hb. Dillen., Rudley, Bory St. Vincent, Prof. Schmidt 1815.

E pulcherrimis et distinctissimis Neckeris, *N. sciuroi* proxima.

**122. N. Harveyana** C. Müll.; *dioica?* caulis repens nudus, ramis erectis subsimplicibus *apice curvatis*; folia dense imbricata *distincte secunda, ovato-acuminata*, concava plicata integerrima, margine revoluta, enervia, cellulis *brevibus oblongis mollibus crassiusculis hic illic pelucidis*, plerumque autem *tenerrime scabris opacis igitur subconflatis, sordide viridibus*, alaribus minutis *subquadratis subdiaphanis*; perich. exserta; theca in ped. brevi recta ovata macrostoma; perist. simplicis d. *latissime lanceolati breves multoties perforati*.

*Sclerodontium secundum* Harv. in Hook. Ic. Pl. Bar. t. 21. f. 1; cum diagnosi pauperrima in Lond. Journ. of bot. 1840. p. 11.

*Patria.* India borealis: Wallich, Royle.

Notis designatis a *N. stricta* subaffini distincta. Specimina fertilia non vidimus.



β. Folia lanceolato-acuminata.

**123. N. trichophylla Sw.** (Fl. Ind. Occ. III. p. 1798.) *dioica*; caulis longe repens filiformis subfoliosus flexuosus, ramis permultis simplicibus compressis amoene late sciuroidibus plerumque in apicem longiorem filiformem attenuatis mollibus amoene flavescentibus sericeis; folia caulina densa, plumose erecto-patentia, e basi rotundatâ anguste lanceolata, in acumen elongatum flexuosum planum loriforme producta, concava, enervia, plicata, margine ubique erecto vel vix convexo ubique denticulato, cellulis elongatis angustissime linearibus pallidis, alaribus ad basin infimam parum impressam vix ullis; perichætia minuta pallida vix exserta, foliis brevioribus et tenuius acuminatis denticulatis quam caulinis; theca in ped. mediocri laevi purpureo erecta ovata, operculo subulato; perist. duplicis d. ext. inflexi, int. ciliaeformes erecti.

Brid. II. p. 227. — *Hypnum trichophyllum* Sw. Prodr. Fl. Ind. Occ. p. 141. — Hedw. Sp. Musc. p. 274. t. 71. — Muscus terrestris, repens, major, ramulis circa extremitatem conglomeratis, foliolis multis et minimis capillaceis caulem ambientibus. Sloane. Cat. Jam. p. 12. — Hist. I. p. 68. n. 19. descr. t. 25. f. 2. s. caps. — Dill. Musc. p. 336. n. 74.

*Patria.* Ex insula Jamaica Sloane primus descripsit, dein Swartz legit; ex insula Trinidad Antillarum minorum in monte Tocuche a pharmacopola Crüger lectam habemus. Rarissime fructificans.

Thecam non vidimus. *Hypno sericeo* haud dissimilis, *N. tomentosae* tamen multo affinior.

**124. N. tomentosa C. Müll.**; *dioica?* *N. trichophyllae* simillima, sed rami in apicem filiformem non attenuati, veluti truncati, rigidiores; basi tomento compacto intertexti, sericei; folia caulina in acumen longum flexuose piliforme attenuata, margine ubique distincte revoluta, profundius plicata, nervo tenui unico brevi; perichætialia tomento inserta at ex axillis foliorum exserta, caulinis multo latiora vaginantia, haud plicata, enervia; theca in ped. mediocri rufo laevi erecta, e collo longiusculo

*sensim oblonga macrostoma*, calyptra laevi pallida; perist. *simplex internum*, dentibus longiusculis latiusculis medio perforatis albidis laevibus fugacissimis, in membrana al-tiuscula positis.

*Leucodon tomentosus* Hook. Musc. Exot. t. 37. — Schw. Suppl. II. I. p. 120. t. 133. — Brid. II. p. 212.

*Patria.* In sylvis Cinchonae prope Loxa Peruviae, alt. 1080 hexapodum, reg. temperata: Humboldt et Bonpland.

*N. flavescenti* et *Regnellianae* simillima, sed quoad structuram foliorum, cellulis alaribus laxe quadratis ca- rentem, e sectione distincta.

**125. N. suborthosticha** C. Müll.; *dioica*; *N. tomentosae* simillima, sed rami basi tomentosi *magis tere- tes*, e viridi pallide straminei; folia caulina *indistincte orthosticha magis appressa, late lanceolato-acuminata*, in acumen elongatum tenuissimum *strictum* producta, *splen- dentia, minus plicata*, margine ubique denticulato *erecto*, nervo latiore; perich. latiora; theca *N. tomentosae*.

*Leucodon tomentosus* C. Müll. in Linn. XIX. p. 210 et Hampe l. c. XX. p. 90.

*Patria.* Venezuela, Merida: Moritz No. 185.

Peristomium et operculum non vidimus.

**126. N. stricta** C. Müll.; *dioica?* caulis repens nu- dus, ramis erectis subsimplicibus patentifoliis strictis *acu- tiusculis*, flavidis nitidis; folia caulina densa, erecto-paten- tia, superiora interdum secunda, e basi subcordata amoene fusca ovata *longiuscule lanceolato-acuminata acutissima, valde plicata, integerrima*, enervia, margine *basi latis- sime revoluta, superne convexo*, cellulis oblongo-linearibus incrassatis rectis, pallide viridibus, laevibus, scario- sis, alaribus *permultis rotundatis incrassatis subobliquis obscurioribus*; perich. exserta; theca in ped. *brevi erecta ovata macrostoma*.

*Sclerodontium strictum* Harv. in Hook. Ic. Pl. Bar. t. 21. f. 2; cum diagnosi pauperrima in Lond. Journ. of bot. 1840. p. 11.

*Patria.* India borealis: Wallich, Royle.

Specimina fertilia non vidimus.

b. *Folia distincte uninervia.*

**127. N. sericea** C. Müll.; *dioica*; cespites procumbentes humiles intertexti sericeo-virides, dein pallide rubiginosi; caulis longe repens foliosus, ramis humilibus breviter fasciculatim ramulosissimis, ramulis flexuosis curvatis; folia caulina densissime imbricata, humore erecto-patentia, parum secunda, e basi cordata margine tantum infimo revoluta et impressâ late lanceolato-acuminata, paulisper curvata, concava, valde plicata, ubique subdenticulata, nervo ultramedio tenui, cellulis angustissime linearibus pallide virescentibus, alaribus ad basin ventricose impressam laxiuscule quadratis pellucidis subgranulosis; perichaetia brevia exserta, foliis squarrosis vaginanti-lanceolatis, acumine latiusculo plano superne denticulato terminatis, basi laxe pellucide reticulatis, uninerviis; theca in ped. mediocri erecta, e collo longo turgide oblonga leptodermis, fuscidula exannulata, operc. conico longe oblique subulato; perist. duplicis dentes externi et interni irregulares obsoleti fugacissimi albidi laeves.

*Leucodon sericeus* Hsch. in Musc. Capensibus Hb. Reg. Berol., a Mundt et Maire lectis.

*Patria.* Prom. b. spei, ad Hangklipp: Mundt et Maire 1821; ad truncos arborum pone pagum George atque in Knytra: Pappe; ad Olifantshoek: Ecklon.

*Hypno myosuroidi* haud dissimilis.

**128. N. pallida** C. Müll.; *monoica*; cespites laxi; caulis procumbens, ramis erectis teretiusculis subdivisis; folia caulina pallide viridia dense imbricata, terminalia saepe secunda, ovata, longe acuminata, acumine apice diaphano, integerrima, nervo pellucido excurrente, cellulis subtilibus oblongis, superne minute rotundatis, basi fuscis, alaribus rotundatis; perichaetia vix exserta, foliis ovatis acuminatis, apice patentibus, interioribus triplo majoribus, subnerviis, convolutaceis longe piliferis;

theca in ped. elongato flexuoso laevi rufo-fusco *subinclinata paulisper curvata ovato-cylindrica*, exannulata, fusca, operc. e convexo rostrato thecam aequante incurvo, calyptra glabra; perist. simplicis dentes late lanceolati subbifidi *rufo-fusci* coriacei, dense trabeculati. †.

*Sclerodontium pallidum* Schw. Suppl. II. I. p. 124. t. 134. —  
*Leucodon pallidus* Hook. Musc. Exot. II. p. 12. t. 172.

*Patria.* Nova Hollandia prope Paramatta et Port Jackson, in arborum cortice.

**129. N. Pohlii** C. Müll.; *dioica*; *N. Pöppigianae* simillima, sed caulis *valde fasciculatim ramosus*; folia *oblongo-lanceolata*, apice sensim in acumen praelongum attenuata, valde concava, *obscure viridia, vix plicata, margine vix revoluta subcrenulato, nervo unico ante apicem evanido*, cellulis sublinearibus, basi fuscidulis; perich. caulinis duplo longiora, lanceolato-acuminata, *angustissima*, enervia; theca in ped. *mediocri* badio erecta et operculum *N. Pöppigianae*; perist. d. *externi valde irregulares conflati fissiles latiores, interni nulli*. †.

*Leucodon Pohlii* Schw. Suppl. III. I. 1. t. 232.

*Patria.* Brasilia: Pohl.

Pl. mascula feminea minor, floribus solitariis.

**130. N. scabriseta** C. Müll.; caulis procumbens subpinnatim ramosus, ramis erectis nitidis teretibus subflagelliformibus; folia arcte appressa, humore erecta, *late cordato-ovata longius acuminata, serrulata, basi uninervia, striata*; theca in ped. *scabro* erecta lineari-oblonga, parum inclinata, operc. elongato-conico; perist. simplicis dentes aequidistantes *latius* lanceolati pallidi, linea longitudinali obscura exarati. †.

*Leucodon scabrisetus* Tayl. Lond. Journ. of bot. 1848. p. 282.

*Patria.* Andes Quitenses, monte Pichincha, ad limites nivium aeternarum: W. Jameson, 5. Julio 1847.

Ex animadv. auctoris a *Leucodonte tomentosum* Hook. notis cursive impressis distare dicitur.

c. *Folia binervia.*

**131. N. Pöppigiana** C. Müll.; *dioica*; *caulis subsimplex gracilis laxifolius flexuosus curvatus*, pallide viridis; *folia caulina madore valde patula, parum secunda, anguste ovato-acuminata stricta, margine late revoluto, apice denticulato, plicis pluribus, nervis binis brevissimis obsoletis vel vix ullis, cellulis anguste linearibus longiusculis densis virescentibus subscariosis, basi fuscis, alaribus incrassatis quadratis minutis vix ullis fuscis; perich. pauca convolutaceo-acuminata integerrima pallida enervia; theca in ped. brevi rubente laevi erecta anguste elliptica microstoma 8-sulcata, late annulata badia, operc. longe oblique aciculari; perist. duplicis dentes ext. angustissime lanceolato-acuminati subcapillares albidi laeves remote articulati, linea longitudinali vix exarati, int. tenuissimi externis adglutinati breviores, in membrana brevi positi.*

*Leucodon gracilis* Hmp. Ic. Musc. t. 18. — *Leskea distans* Mont. Ann. d. sc. nat. 1845. p. 95.

*Patria.* Chile australis: Pöppig, C. Gay.

Vestigiis explicatis facile discernibilis. Pl. mascula longior flaccidior magis flexuosa, floribus multis gemmaeis seriatim dispositis.

d. *Folia multinervia.*

**132. N. curtispindula** Hdw. (Fund. Musc. II. p. 93.); *dioica*; *cespites lati laxi robusti duri rigidi, sordide virides v. lutescentes, apice sericei; caulis longe procumbens vage ramosus, ramis brevibus simplicibus obtusis v. sursum incrassatis subincurvis v. longioribus iterum divisis, rigidissimis fragilibus inordinate v. pinnatim ramosus; folia caulina squarrosulo-imbricata, plicata, parum secunda, humore patula, robusta, minus plicata, e basi decurrente parum angustiore ovato-acuminata, acumine robusto latiusculo serrulato, margine usque ad acumen late revoluto, nervis pluribus 3—5, unico latiusculo elongato ultra medium producto et pluribus brevibus utrinque dispositis, cellulis incrassate oblongis, robustis recte seriatis,*

basi fuscis, alaribus maxime incrassatis, utriculo primordiali granulosis, oblique seriatis; perichaetia longe exserta pallida cylindracea, foliis convolutis lanceolato-acuminatis, apice summo subdenticulatis, basi laxe elongate pellucide reticulatis, enervibus; theca in ped. brevi rufo laevi erecta ovata badia majuscula, ore minori, exannulata, *deoperculata pendula*, operc. conico brevi oblique acuminato; perist. *duplicis lanceolato-acuminati albidi laeves, dense trabeculati, integri, medio perforati, interni capillares concolores articulati*; calyptra glabra.

*Cyrtopus curtispendus* Spruce in Musc. Pyr. No. 113. Ann. and Mag. of Nat. Hist. 1849. p. 151. — *Antitrichia curtispendula* Brid. II. p. 222. — *Anomodon curtispendus* Hook. et Tayl. Musc. Brit. p. 79. t. 22. — *Neckera hamulosa* Vill. Cat. Meth. p. 42. — *Hypnum curtispendum* L. Sp. Pl. p. 1504. — *H. montanum* Lamarck. — Brid. Musc. Rec. II. II. p. 145. — *Hypnum dentatum, curtispendum, viticulis rigidis.* Dill. Musc. p. 333. t. 43. f. 69.

$\beta$ . *Hispanica*; folia e basi angustiore late et perfecte ovata acuminata, amoene chlorophyllosa, theca cylindrica. *Antitrichia curtispendula var. Hispanica* Schimp. in sched.

*Patria.* Per totam Europam et in America septentrionali ad truncos arborum vetustos et rupes humidas. Var.  $\beta$ . in Hispania, in Sierra Morena et ad Escorial: W. P. Sch. 1847. — *Primo vere*, sed rarius fructificans.

A *N. sciuroide* affini characteribus explicatis toto coelo refugit.

Subsectio IV. **Lasia** Brid. I. p. 200. — Caulis *pinnatim divisus compressus, ramis patentibus rectis, foliis acuminatis laevius plicatis, cellulis oblongis.* Perich. exserta.

133. **N. trichomitron** C. Müll.; *monoica*; cespites altiusculi duri lati virides; caulis repens; rami erecti crassiusculi densifolii duri, *breviter pinnatim ramulosi, ditissime fertiles*; folia caulina appressa, humore patula, *e basi subcordatâ ovato-acuminata, integerrima, parum plicata, margine ubique valde revoluta, nervo obsoleto, cellulis oblongis pallidis rectis, alaribus ad basin solam*

rhomboidalibus quadratis obscuris; perich. convolutacea lanceolato - acuminata, longius laxius reticulata pallida, exserta, theca in ped. *parum exserto flavido laevi* erecta *anguste cylindrico-oblonga microstoma fusca tenella exannulata*, operc. *conico-acuminato recto*; calyptra majuscula straminea *pilosa*; perist. simplicis dentes *anguste lanceolati* albidi *laeves* leviter articulati linea media tenui exarati.

*Lasia trichomitron* Brid. II. p. 201. — *Leptodon trichomitron* Mohr. Obs. — *Pterigynandrum trichomitron* Hdw. Sp. Musc. p. 82. t. 16. — *Pterogonium trichomitron* Schw. Suppl. I. I. p. 107. — *Hypnum Saladinianum* Neck. Meth. Musc. p. 162 ??? — *H. micropodon* Brid. Musc. Rec. II. II. p. 151. — *H. myosuroides*, setis brevissimis. Dill. Musc. p. 551. t. 85. f. 18.

*Patria.* Per Americae septentrionalis partem majorem, arborea et vulgaris.

In Flandria e Bridelio primum lecta est a Saladin; maxime vero dubitamus. E vestigiis explicatis species distinctissima.

#### An huc pertinens?

1. **N. Californica** Hook. et Arn. (in Beechey's Voy. 1841. p. 162.); caulis cespitosus erectus digitalis pin-natus undique foliosus, ramis brevibus perfecte patentibus; folia undique divergentia erecto-patentia nitida membra-nacea, ovata s. oblongo-ovata breviter acuminata, mo-dice concava, omnino integerrima, basi obscure uninervia, margine revoluta, minutissime areolata veluti punctulata; perich. arcte imbricata convoluta, inferiora ovata acumi-nata, superiora elongata acuminatissima, omnia enervia pellucida; thecae in ped. lateralibus perichaetio fere omnino inclusis exsertae erectae v. oblique ellipticae rufo-fuscae, operc. rostrato basi conico, calyptra gracili fere subulata, hinc longitudinaliter fissa; perist. ext. d. subulati latius articulati, int. e ciliis octo (?) filiformibus flavis, c. ext. alternantibus, basi membrana reticulata brevissima unitis compositi. †.

*Patria.* California: Lay et Collie.

Subsectio V. **Leptodon** Brid. II. p. 197. — *Caulis compressus, ramis plus minus involutis v. incurvis, foliis rotundato-obtusis, rotundato-areolatis. Perich. exserta.*

**134. N. Smithii** C. Müll.; *dioica*; *caulis primarius repens, secundarius procumbens compressus elatus basi longiuscula indivisa, sursum breviter bipinnatus plumaeformis, rami densissime approximati breves apice convoluti, viridissimi rigidissimi duri; folia caulina dense imbricata ovato-ligulata obtusa integerrima implana caviuscula, margine inferne revoluta, nervo ad medium producto viridi, cellulis rotundatis mollibus chlorophyllosis; perichaetia longiuscule exserta pallida, paraphysibus multis cellulosis longis, foliis late vaginantibus lanceolato-acuminatis, acumine subloriformi longiusculo obtuso, cellulis tenuioribus pallidioribus, nervo in acumen evanescente; theca in ped. perbrevis emerso flavido curvulo elliptica fusca leptodermis, exannulata, calyptra dimidiata brevis longe pilosa, opere. breviter conico recto; perist. simplicis d. ext. elongate lanceolato-acuminati albidi rugulosi, remote articulati, linea media fissiles, perist. internum: membrana brevissima.*

*Hookeria convoluta* Spr. Syst. Veg. IV. II. p. 324. — *Leptodon Smithii* Mohr. Obs. p. 27. — Brid. II. p. 197. — *Lasia Smithii* Brid. Mant. Musc. p. 133. — *Pterigynandrum Smithii* Brid. Sp. Musc. p. 140. — *Pterogonium Smithii* Sw. in Schrad. Journ. II. p. 173. — Schw. Suppl. II. I. p. 31. t. 109. — *Orthotrichum Smithii* Brid. Musc. Rec. II. II. p. 33. — *Pilotrichum Smithii* P. B. Prodr. p. 83. — *Polytrichum Smithii* Hull. 249. — *Neckera bipinnata* Schl. Crypt. Helv. Cent. IV. n. 22. — *Hypnum Smithii* Dicks. Fasc. II. Crypt. p. 10. t. 5. f. 4. — *H. cincinnatum* Santi Viagg. p. 209. t. 6. ex Savi Fl. Pis. 2. p. 441.

*Patria.* Ad arbores et rupes Europae meridionalis; in Bavaria circa Hassellohe, in Tiroli meridionali atque Helvetia et inde per totam Italiam; ex oris Istriae per Dalmatiam usque ad Macedoniam, Graeciam, Asiam minorem et ab oris Africae borealis ad Prom. b. spei; ex Helvetia porro per Galliam meridionalem ad Hispaniam et in Anglia australi, ubi in Devonshire vulgatissima. — *Vere.*



Pulcherrima species et ramis convolutis *Helicophyllum* in memoriam redigentibus primo visu ab omnibus muscis discernenda.

**135. N. longipedunculata** C. Müll.; *dioica*; caulis secundarius humilis, basi brevi indivisa, sursum breviter simpliciter pinnatus viridissimus, ramis erecto-patentibus haud involutis; folia caulina *N. Smithii*, nervo crasso pallido flexuoso, apice saepe fuscato; theca in ped. longiuscule exserto erecto; perist. internum: membrana brevissima.

*Leptodon longisetus* Mont. Hist. d. II. Canar. p. 20.

*Patria.* Teneriffa.

A *N. Smithii* simillima characteribus designatis certe distare videtur. Operculum et calyptram haud vidimus.

**136. N. Pluvini** Brid. (in Steudel. Nomencl. Crypt. p. 295.); caulis primarius longe repens, secundarius *brevis tener mollis*, ramis erecto-patentibus haud vel vix involutis subsimplicissimis simpliciter pinnatus compressus; folia caulina sordide viridia, *mollia*, cellulis rotundis *diaphanis*.

*Pilotrichum Pluvini* Brid. II. p. 260.

*Patria.* India Orientalis: De Pluvin 1784.

A *N. Smithii* proxima vestigiis explicatis certe differt et species pulchella, adhuc sterilis tantum nota.

**137. N. flexuosa** Harvey (Hook. Ic. Pl. Rar. t. 21. f. 3.); caulis *pendulus elongatus* gracilis *flaccidus*, ramis *remotis brevibus simplicibus vel elongatis pinnatis subcurvatis flaccidis*, apicibus involutis 1 — 2 pinnatus, luteo-viridis, subcompressus; folia caulina *e basi angustiore ligulato-obtusa, obtusissime et brevissime acuminata*, margine *ubique maxime* revoluta, cellulis *ellipticis rhomboidalibus subincrassatis*; perichaetia emersa, foliis lanceolato-acuminatis; theca immersa oblonga.

C. diagnosi in Lond. Journ. of bot. 1840. p. 14. — *Leptodon filiformis* Schimp. in schedulis.

*Patria.* India Orientalis, Calcutta: Hb. Schimp. Nepal: Wallich.

A *N. Smithii* theca immersa, a *N. Pluvini* simillima notis cursive impressis refugit.

*Leucodon incertus.*

**Leucodon rufescens** Hsch. et Reinw. (Nov. Act. Acad. Caes. Leop. XIV. II. Suppl. p. 712.); caulis assurgens ramosus dense foliosus fuscus; folia imbricata erecto-patentia oblonga longissime acuminata concava, apicem versus remote serrulata, enervia, lutescentia v. rufescentia, cellulis linearibus confertissimis; perich. ovata, longissime acuminata, concava, apicem versus serrata; theca in ped. 8—10 lineas longo apice incrassato laevi purpureo erecta oblonga laevis brunnea, ore contracta atro-fusca; perist. simplicis dentes membranacei breves erecti teneri albidi lanceolati perforati basi connati. †.

*Patria.* Java: Reinwardt.

Subsectio VI. **Spiridens** Nees ab Es. Nov. Act. XI. I. p. 143. — Caulis pleurocarpicus procerus pinnatim parce divisus robustissimus *squarrosifolius*, foliis basi vaginantibus, inde reflexis, late lanceolatis limbatis, rotundate areolatis. Theca emersa.

*Patria.* Java, Australia.

*Cyrtopodi* generis *Pilotrichi* sectio affinis.

**138. N. Reinwardti** C. Müll.; dioica; stipes crassus firmus lignosus fragilis robustissime foliosus longissimus 1—2 pedalis, junior simplicissimus, senior ramis similibus robustissimis crassissimis patentibus subpinnatus; folia maxime squarrosa robustissima et maxime scariosa, lutescentia, e basi longa erecta vaginante, e cellulis tenuerrimis pellucidis angustissime linearibus reticulata, molli subito reflexa, longe latissime lanceolato-acuminata, carinata, limbo supra basin oriundo usque ad apicem producto incrassato lato grosse remote argute serrato flavido limitata, nervo in cuspidem serratum crassum exeunte valido flavido, superne remote dentato, cellulis incrassatis scariosis rotundatis densis; perich. multo minora, reflexiuscula, late vaginantia, nervo excedente longissime cuspidata, ad cuspidem tantum remote dentata v. inte-

gerrima, elongate anguste areolata, immarginata; theca subemersa magna, turgide oblonga, saepius arcuata, pachydermis fusca, exannulata, operc. intense rubro conico acute acuminato incurvo, calyptra cucullata fuscidula glabra, pedunculo perbrevis ad basin paraphysibus numerosis longis simplicibus cincto; perist. d. ext. longissimi anguste lanceolato-acuminati, arcte trabeculati, linea media obsoleta, lutescentes, siccitate in spiram contorti, int. in membrana altiuscula reticulata angustiores membranacei albidi dense articulati, carinati, perforati.

*Spiridens Reinwardti* Nees ab Es. Nov. Act. XI. I. p. 143. t. 17. — Brid. II. p. 280. — Schw. Suppl. II. 2. p. 146. t. 147. — Hook. Bot. Miscell. I. t. 1; ic. optima!

*Patria.* In summo monte ignivomo insulae Tidore in Archipelago Moluccarum minorum: Reinwardt 1820.

Muscus omnium pulcherrimus, giganteus, florae Indicae ornatus optimus.

139. **N. Balfouriana** C. Müll.; *N. Reinwardti* simillima, sed planta angustior gracilior 3—6 uncialis, folia anguste marginata, remotissime dentata, theca ovato-cylindracea.  $\frac{1}{4}$ .

*Spiridens Balfourianus* Grev. Ann. and Mag. of Nat. Hist. 1848. p. 326. t. 18.

*Patria.* Tahiti: Dr. Sibbold.

Sectio VII. **Climacium** Web. et Mohr. Caulis primarius repens, secundarius pleurocarpicus elatus, primum flagelliformis, apice fasciculatim dendroideo-ramosus, ramis undique foliosis, folia ovata elongate areolata. Theca exserta.

*Patria.* Europa, Nova Hollandia.

*Pterobryo* generis *Pilotrichi* sectio affinis.

140. **N. dendroides** Brid. (Musc. Rec. II. II. p. 15.); dioica; caulis primarius longe repens; rami erecti plures, primum flagelliformes, dein stipite longo foliis squamiformibus obtecto et apice ramulis subsimplicissimis densifoliis longiusculis crassis attenuatis pallide viridibus dendroideo-divisi, ditissime fructiferi; folia caulina e basi late auriculato-cordata ovato-oblonga ligulato-obtusa,

*apice grosse serrata, margine erecto, nervo valido ante apicem tenuiter evanido, cellulis pellucidis laxiusculis mollibus leptodermibus, ad alas basilares laxioribus teneris; perich. longe vaginantia pallida, longiuscule lanceolato-acuminata, elongate laxe pellucide reticulata enervia; theca in ped. longiusculo purpureo laevi erecta cylindracea paulisper cernua exannulata purpurea, operc. conico-acuminato nitide purpureo, in columella exserta arctius persistente; perist. pulcherrimi d. ext. longe late lanceolato-acuminati dense trabeculati purpurei, interni aequilongi lati dentiformes, remote articulati badii rugulosi, medio maxime hiantes subscalares; calyptra angustissima, thecam superans et apicem pedunculi includens pallida laevis.*

*Climacium dendroides* Web. et Mohr. Schwed. Reise p. 96 et Bot. Taschenb. p. 252, t. 10. f. 2. — Bryol. Europ. Fasc. XVI. c. tab. — Brid. II. p. 271. — *Leskea dendroides* Hdw. Sp. Musc. p. 228. — *Hypnum dendroides* L. Sp. Pl. p. 1593. — *H. dendroides sericeum* setis et capsulis longioribus erectis. Dill. Musc. p. 313. t. 40. f. 48.

*β. Americanum*; ramis julaceo-teretibus; cellulis foliorum magis acutiorum brevioribus magis incrassatis. *Climacium Americanum* Brid. II. p. 273.

*Patria.* Per totam Europam et var. *β.* per totam Americam septentrionalem, in locis umbrosis graminosis uliginosis v. humidis. — *Hyeme et primo vere, sed rarissime fertilis.*

E pulcherrimis muscis Europaeis.

141. *N. sulcata* C. Müll.; *dioica?* *N. dendroidi* similis, sed *rami divisionum pro more iterum divisi*; folia densa, quadrifariam imbricata, caulina inferiora sparsa, *ex ovato longe acuminata*, ramea duplo triplove minora e basi cordata oblonga, acutiuscula, concava, *apicem versus eroso-denticulata*, siccitate striolata, pellucida pallide viridia, basi fusca, nervo crasso ad apicem pertingente, fusco, cellulis oblongis, basilaribus longioribus; perich. oblongo-lanceolata acuminata; theca in ped. brevi aurantiaco longius cylindrica erecta aequalis annulata,

operc. conico-acuminato recto, calyptra anguste cucullata elongata; perist. d. ext. lanceolati acuti dense trabeculati badii, interni *breviores linea media haud secedente exarati*. †.

*Leskea sulcata* Schw. Suppl. III. II. I. t. 270. — *Climacium sulcatum* Brid. II. p. 274. — *Leskea sulcata* Hook. Musc. Exot. t. 164.

*Patria.* Nova Hollandia, ad portum Jackson: **R. Brown.**

A *N. dendroide* eximie affini notis laudatis facile differt.

Sectio VIII. **Pseudopilotrichum.** Caulis primarius repens, secundarius pleurocarpicus *plus minus teres*, pendulus elongatus pinnatus, rarius decumbens; folia *basi auriculata*, laevia v. papillosa, lineari-areolata. Theca exserta.

*Pstria.* Terrae calidae et tropicae Asiae, Africae, Americae et Australiae.

*Meteorio* generis *Pilotrichi* sectio similis.

Subsectio I. **Orthostichella.** Folia in series distincte rectas disposita, e cellulis laevibus composita.

a. *Folia uninervia.*

— 142. **N. longipes** C. Müll.; *dioica*; caulis repens filiformis nudus, rami erecti pusilli, supra basin brevissimam subfoliosam ramulis simplicibus brevibus pinnati, molles, pallide virides pentagoni *tenuis*; folia caulina in series quinque tortas disposita, densa, *anguste cymbiformi-oblongo-acuminata*, basi subrotundata, subplicata, breviuscula, margine erecto, ad *acumen dorso impressum planiuscule revoluta*, integerrimo, nervo *tenui unico excurrente*, cellulis brevissimis angustissimis pellucide viridibus mollibus viridi-punctulatis; perich. subvaginantia longe lanceolato-acuminata; theca in ped. mediocri purpurascens laevi erecta ovali-oblonga microstoma, exannulata, operc. conico obliquiuscule subulato, calyptra dimidiata brevis pilosa; perist. *Pilotrichi filicini*.

*Pilotrichum longipes* Mont. in litt. — *Isothecium tetrastichum* Brid. II. p. 378? — *H. quadrangulare* Schw. Suppl. I. II. p. 211, a Richard in Guiana collectum?

*Patria.* Guiana: Hb. Mont. Insula Trinidad Antillarum, Uraruga et Carani Woods, 20. Oct. 1847: Crüger pulchre fertilem legit.

A *N. tetragona* notis laudatis jam facile distinguitur; ex foliorum forma *Pilotricho filicino* valde affinis.

143. **N. quinquefaria** C. Müll.; caulis longissime repens, ramis latiusculis crassiusculis longissime pendulis simpliciter pinnatis, ramulis brevibus *rotundato-obtusis* v. *cuspidulatis* *patenti-divergentibus* v. *divergenti-divaricatis*, nitidis flavo-viridibus, aureo-lutescentibus v. pallidioribus compressis praeditis, ramis ad caulem primarium simplicibus longiusculis curvatis mixtis; folia distincte quinquefaria dense conferta, *longiuscule anguste oblongo-lanceolata breviter* v. *longius acute acuminata*, marginibus summo apice involutaceis, integerrimis, cymbiformia, pallida v. lutea, longitudinaliter biphlicata, infima basi paulisper excavata, auriculis parum evolutis, *ad marginem basis cellulis alaribus multis late haud orbiculariter dispositis, planis* v. *vix ventrosis incrassatis flavescensibus, nervo tenuissimo longiusculo integro flavido.*

*Isothecium pentastichum* C. Müll. Linn. XXI. p. 196, non Bridel! — *Leskea? pentasticha* Hsch. in Musc. Sieber. No. 29, quoad inscriptionem alteram ex insula Mauritii, quoad alteram e Nova Hollandia, patria c. Americana certe commutata! — Muscus terrestris, repens minor, cujus ramuli foliis multis et minimis seriatim quadrato ordine dispositis cinguntur. Dill. Musc. p. 335. t. 43. f. 73? — *Hypnum terrestre* Aubl. Pl. Guian. IV. p. 962?

*Patria.* Surinam: Kegel et alii; insula Trinidad Antillarum minorum: Crüger copiose legit. E Guatemala comm. Kegel.

Characteribus datis propria species, adhuc sterilis nota.

144. **N. tenuis** C. Müll.; *dioica?* ramus communis in ramos multos pendulos flexuosos *tenuis*, ramulis *brevibus teneris tenuiter attenuatis flexuosis decurvatis* v. *ascendentibus sordide viridibus* nitidis praeditis, divisus; folia caulina quinquefaria *in series ob ramulos teneros indistinctas rectas* disposita, e basi *vix excavata et vix au-*

*riculata* cellulis alaribus marginalibus minutis planis paucis flavidis incrassatis praeditâ anguste oblonga, longiuscule acuminata, marginibus integerrimis superne parum involutaceis, nervo tenui elongato subfurcato; perich. pauca subconvolutacea longius acuminata, superne plicata et marginata; theca in ped. perbrevis thecam vix aequante paraphysibus longe exsertis cincto majuscula oblonga.

*Patria.* Brasilia, pr. Rio Janeiro.

*N. molli* habitu subaffinis, et a *N. quinquefaria* primo adspectu teneritate partium omnium recedens.

145. **N. viridis** C. Müll.; *dioica*; ramus communis brevis, in ramulos *graciles longiusculos parce partitos viridissimos*, nitidos *sciuroideo-attenuatos* inaequales *maxime decurvatos multo teneriores rigidiusculos compressiusculos* divisus; folia caulina quinquefarie in series ob teneritatem ramorum saepe indistinctas tortas disposita, dense conferta, e basi vix excavata et vix auriculata, cellulis alaribus paucissimis flavidulis basilaribus praeditâ ovato-oblonga breviter acuminata, tenera, nervo obsolete furcato, marginibus superne parum involutaceis integris; perich. angustiora longe acuminata.

*Patria.* Venezuela, Caracas: Moritz. Coll. I. Thoreyana Hamburgensis No. 38.

A *N. versicolore* colore viridissimo, statura teneriore et notis caeteris cursive impressis distat.

b. *Folia obsolete binervia v. enervia.*

146. **N. tetragona** C. Müll.; caulis repens, ramis brevibus *latiusculis* compressis inaequaliter pinnatis, ramulis quinquefariis apice rotundato-obtusis crassiusculis, pallide viridibus nitidis, plerumque simplicissimis patentidivergentibus; folia caulina dense imbricata, e basi vix auriculata cellulis alaribus paucissimis veluti obsolete planis *flavidis* praeditâ late oblonga, apice subito acumine brevi ob margines utrinque involutos canaliculato terminata, vix semel obsolete plicata, *enervia*.

*Isothecium tetragonum* Brid. II. p. 377. — *Hypnum tetragonum* Sw. Prodr. Fl. Ind. Occ. p. 142. — Hdw. Sp. Muscor. p. 246. t. 63. — ? *Pterigynandrum quadrifarium* Brid. II. p. 194? vel *P. aureum* Brid. Mant. Musc. p. 101? e Jamaica.

*Patria.* Jamaica, ubi prope cacumina montium legit Swartz. Venezuela, Cocollar: Moritz.

A *N. quinquefaria* primo visu statura humili aliter pinnata et ramulis crassiusculis longiusculis differt. Folia haud tetrasticha!

**147. N. pachygaster** C. Müll. caulis repens; ramis longissime pendulis rigidis teneris rectis nec genuflexis, ramulis divergenti-divaricatis pinnatis inaequalibus teneris attenuatis rigidis decurvatis, pallide viridibus, nitidis, compressiusculis; folia quinquefarie in series obliquas subspirales laxè vesiculose imbricate disposita, e basi panduraeformi-excavata auriculis parvis et cellulis alaribus obsoletis paucissimis flavidis praeditâ subito latissime ovata, acumine brevi terminata, marginibus superne parum involutis, maxime ventricosa cochleariformia, obsolete binervia.

*Patria.* Venezuela, in montibus nivosis prov. Meridae: Moritz.

A *N. cochlearifolia* et *mollis* notis cursive impressis, primo visu foliis distincte et torte quinquefariis differt.

**148. N. hexasticha** C. Müll.; *N. pachygastri* simillima, sed rami tenuissimi distincte pentagoni, haud compressi, folia multo minora, e basi suberecta parum auriculata cellulis alaribus vix praeditâ subito maxime ventricosa, obsolete binervia.

*Isothecium hexastichum* Brid. II. p. 380. — *Hypnum hexastichum* Schw. Suppl. I. II. p. 210.

*Patria.* Hispaniola: Thouin. Cuba, S. Yago, Mont Liban, 3500' altitud: Funck et Schlim Majo 1844. Coll. Linden. No. 2198.

**149. N. rigida** C. Müll.; *dioica*; ramus communis brevis, interdum valde elongatus, in ramulos longitudine valde inaequales subfasciculatos filiformes attenuatos de-



curvatos rigidos tereti-pentagonos haud compressos pallide virides divisus; folia dense conferta, apicibus tamen haud appressis sed patentibus, igitur parum laxe in series quinque tortas disposita, e basi distincte panduraeformi-excavata, vix auriculata, cellulis alaribus paucissimis flavidulis v. viridiusculis incrassatis basilaribus praeditâ magis ovate cochleariformia breviter acuminata, tenera, obsolete binervia, marginibus superne parum involutaceis integris; perich. convolutacea angusta acuminata; theca in ped. perbrevis tenuissima minute oblonga; perist. dentes ext. rigidi pallidi inaequaliter angusti, interni cilia rigida fragilia flavida longitudine fissa.

*Neckera imbricata* Hsch. in Musc. Mexic. Deppeanis.

*Patria.* Mexico: Hb. Miquel, Deppe.

A *N. viridi* proxima notis illustratis facile discernibilis.

**150. *N. versicolor* C. Müll.; dioica, tenella;** caulis longe repens, ramis breviusculis, in ramulos valde inaequales brevissimos v. longiores flexuosos parce dichotomos teretiusculos molles teneros obtusos v. attenuatos virides v. lutescentes v. amoene aureos nitidos, foliis saepius destructos subdendroideo-divisis; folia dense imbricata, in series quinque saepe distinctas tortas disposita, panduraeformia, ad auriculorum parvulorum basin cellulis alaribus paucis flavidis instructa, obsolete binervia, superne cochleariformia, acute acuminata, marginibus apice tantum summo involutaceis; perich. longiora angustiora parum exserta; theca in ped. perbrevis minute ovalis recta; perist. *N. mollis*.

*Daltonia imbricata* Spreng. Syst. Veget. IV. I. p. 187. — *Necera imbricata* Schw. Suppl. II. II. 1. t. 165! p. 42; excl. Syn. Hedwig., Belvisian. et Bridelianis! — *Isothecium imbricatum* Brid. II. p. 379, e speciebus duabus diversis Brasiliensibus sterilibus incompletis et Owariensi unica incompleta compositum igitur delendum.

*Patria.* Brasilia, Rio Janeiro: Beyrich, Beske.

Fructum non observavimus. A *N. imbricata* vera vestigiis expositis certe differt.

151. **N. imbricata** Schw. (Suppl. II. II. 1. p. 42. t. 465.); tenuis pendula vage subpinnatim ramosa compressa densifolia, folia in series quinque obliquas arctissime imbricata, minuta, *perfecte cymbiformi-oblonga, nunquam panduraeformia, cavitate profunda ante apicem abrupta, acumine in apice folii veluti gibboso posito brevissimo*, margine erecto ad apicem plus minus involuto, ubique integerrimo, nervis binis brevissimis obsoletissimis pallidis, cellulis angustissime linearibus densissimis pallidis basi flavidis, alaribus vix ullis minute quadratis flavidis.

Schw. l. c., sed excl. tabula! — *Pilotrichum imbricatum* P. B. Prodr. p. 65 sub *Hypno? imbricato!* — Brid. II. p. 860, excl. Schwägr. icone! — *Isothecium pentastichum* Brid. II. p. 378. — *Hypnum pentastichum* Arn. Disp. p. 61.

*Patria.* Insula Bourbonis: Bory St. Vincent.

A *N. versicolore* notis cursive impressis certe distat. Fructus adhuc ignotus.

Species non satis notae.

1. **N. livens** C. Müll.; caulis pendulus subpinnato-fasciculatoque ramosus, folia quadrifariam (?), sed minus distincte, imbricata laxa, late ovata breviter acuminata, basi coarctata concava, interdum plica media nervum simulante sed basin folii non attingente, una alterave abbreviata laterali, viridia v. fusca, madore violaceo-fusca, enervia, cellulis anguste linearibus, alaribus multis laxius quadratis concoloribus. †.

*Isothecium livens* Brid. II. p. 380. — *Hypnum livens* Schw. Suppl. I. II. p. 211. Suppl. III. II. 2. t. 284.

*Patria.* Peruvia.

Species distincta, sed melius observanda. An revera enervis?

2. **Isothecium Thunbergii** Brid. (II. p. 381.); caulis decumbens divisus longiusculus, divisionibus vage ramosis; rami subsimplices, basi subnudi, teretes, recti; folia imbricata sexfaria cordato-lanceolata, concava, acuta, nervo duplici albido instructa, humiditate patula, sic-

citare cauli appressa, e rufo lutescentia, subviridia; perich. caulinis longiora angustiora; theca in ped. erecto brevissimo rufescente erecta obovata aequalis; perist. duplex albidum. †.

*Hypnum Thunbergii* Brid. Mant. Musc. p. 167.

*Patria.* Jamaica, unde Thunberg ad Jussieu 1788 misit; probabiliter arboreum.

Subsectio II. **Pilotrichella.** Folia in series indistinctas disposita, e cellulis laevibus composita.

a. *Folia enervia.*

α. *Folia cymbiformia planiuscula.*

152. **N. flexilis** C. Müll.; *dioica*; ramus communis in ramos *multos longe pendulos inaequaliter crassiusculos, ramulis brevibus crassioribus turgidis inaequalibus parum flexuosis decurvatis v. parum ascendentibus cuspidate attenuatis remotis* instructos firmos nitidos tereiusculos pallide virides, flavescentes et rufescentes divisus; folia e basi parum excavata *majusculè auriculata* et cellulis alaribus *in orbem majusculum subventricosum dispositis* incrassatis fuscis praedita latissime oblonga cymbiformia, acumine *brevissimo hamate reflexo terminata v. obtusiora*, marginibus superne latiusculè involutaceis, enervia; perich. convolutacea longius et recte acuminata; theca in ped. brevi ovalis, ore coarctata.

*Pilotrichum turgidum* C. Müll. Bot. Zeit. 1848. p. 767. — *Hypnum nigricans* Hmp. Linn. XX. p. 87. — *Isothecium flexile* Brid. II. p. 361. — *Hookeria flexilis* Sm. Trans. of Linn. Soc. IX. p. 281. — *Leskea flexilis* Hdw. Sp. Musc. p. 234. t. 58. — C. Müll. Linn. XIX. p. 215. — *Hypnum flexile* Sw. Prodr. Fl. Ind. Occ. p. 141!

*Patria.* Venezuela, prov. Caracas prope Galipan altitud. 5000' Jan. 1845 leg. Funck et Schlim, in arboribus putridis. Coll. Linden. No. 371. Primus fertilem legit in prov. Caracas Moritz. In montibus summis Jamaicae australis primus legit Swartz.

Ramuli *Hypnum cuspidatum* in memoriam referunt A *N. rufescente* subsimili notis datis facile distinguitur.

153. **N. longissima** C. Müll.; ramus pendulus longissimus valde flexuosus *crassiusculus horride foliosus*, rufescens, v. flavescens, ramulis crassioribus elongatis simplicibus; folia *subhorizontalia inordinate imbricata horrida*, e basi haud coarctata parum rotundato-auriculata et cellulis alaribus paucis planis incrassatis fuscidulis praeditâ late ovata *longissime piliformi-acuminata*, planiuscula, marginibus haud involutis *superne tantum subdenticulatis*, enervia.

*Pilotrichum cirrhifolium* Hsch. Fl. Bras. Fasc. I. p. 60. — *Isothecium tetragonum* var. *piligerum* Mont. Ann. d. sc. nat. 1839. XII. p. 54? — *Hypnum longissimum* Raddi Critt. Bras. 9. et Brid. II. p. 510. — *H. giganteum* Brid. olim.

*Patria.* Brasilia, in montibus ad Villam Ricam et in Serra d'Estrella: Martius et Raddi.

A *N. trichophora* simillima notis cursive impressis longe distat.

154. **N. trichophora** C. Müll.; caulis repens, ramis pendulis *compressiusculis*, basi crassioribus et in ramulos tenuissimos filiformes valde flexuosos *luxifolios dichotomos paucos* divisis, rufescenti-flavidis nitidis, *flaccidis*; folia e basi haud excavata parum auriculata et cellulis alaribus paucis planis incrassatis fuscidulis praeditâ late ovata longe piliformi-acuminata, planiuscula, marginibus haud involutis ubique minute denticulatis, *angustissime densissime elongate reticulata*, enervia, ramea majora, latiora, ramulina angustiora.

*Isothecium?* *trichophorum* Mont. Ann. d. sc. nat. 1843. XIX. p. 238.

*Patria.* Insulae Sandwich, ad cortic. arborum, *Raddulae reflexae* N. et M. consors: Gaudichaud.

Notis datis nunquam confundenda et solitaria species et *N. longissimae* proxima.

β. Folia cochleariformia profunde concava.

155. **N. cochlearifolia** C. Müll.; *dioica*; ramus elongatus flexuosus flaccidus teneriusculus *rigidiusculus*, ramulis alternis *inaequaliter elongatis tenuissime attenua-*

*tis*, junioribus illis *N. mollis* similibus, deflexis flexuosis, pallescentibus, crassioribus, *saepe iterum divisis*; folia caulina *laxe imbricata squarrulosa*, e basi vix excavata *majuscule auriculata* cellulis alaribus flavidis ventrosis instructâ late ovata *cochleariformi-concava breviter apiculata*, marginibus superne parum involutaceis; perich. cylindraceo-convoluta exserta acuminata; theca in ped. *longiuscule exserto oblonga*, operculo conico-obliquo longiusculo, calyptra basi crenulata *pilosiuscula*; perist. robustius, interni cilia *filiformia subnodosa*, externos subaequantia rugulosa pallida.

*Pilotrichum cochlearifolium* C. Müll. Linn. XVII. p. 599.

*Patria.* Mexico: C. Ehrenberg.

A *N. molli* saepe commutata notis designatis longe refugit.

156. *N. turgescens* C. Müll.; *dioica*; *N. cochlearifoliae* proxima, *sed partibus omnibus robustissima turgida, ramis minus divisis haud attenuatis, sed teretiusculis crassissimis laxissime squarrulosis*; folia majora oblongiora, latere magis excavata, theca et calyptra praecedentis.

*Patria.* Mexico: C. Ehrenberg.

E structura interna varietas *N. cochlearifoliae* videtur, sed habitu longe refugit.

157. *N. mollis* C. Müll.; *dioica*; ramus elongatus *subgeniculato-flexuosus flaccidus mollis tener*, ramulis eleganter alternis *brevibus erecto-patentibus vel divergenti-divaricatis tenuibus attenuatis flexuosis pallescenti-flavidis*; folia caulina subdense imbricata parva oblonga obtusa vix auriculata, cellulis alaribus *paucis griseo-pallescentibus*, marginibus integerrimis apice involutis praedita, pallida; perich. infima late ovata obtusa, superiora longiuscule convolutaceo-lanceolata, *pedunculum fere includentia*; theca in ped. *perbrevis minutissime ovalis subrecta*, operculo conico oblique rostrato, calyptra laevi; perist. parvum, internum e dentibus latiusculis carinatis basi connatis compositum.

*Leskea mollis* Hdw. Musc. Fr. IV, t. 40. — Brid. II. p. 292. —  
*Hypnum pendulum* P. B. Prodr. p. 67.

*Patria.* Nova Seelandia: Banks.

158. **N. Cumingii** C. Müll.; *N. molli* simillima, sed parum robustior, folia robustiora majora obtusiora magis aurea, basi distinctius panduraeformi-excavata, cellulis alaribus *flavidis, ventricose paginam folii inferiorem spectantibus.*

*Patria.* Chile: Cuming.

Caetera desunt, sed credibile est, notas discernendi alias pariter ostendere.

159. **N. phleoides** C. Müll.; *N. crassicauli* simillima, sed rami *multo tenuiores, Phlei spicam bene referentes, obtusi, in apicem curvatum non producti;* folia caulina minora, *in acumen breve margine involutaceo subcucullatum producta, enervia.*

*Hypnum phleoides* Desvaux in Brid. II. p. 431.

*Patria.* Insula Bourbonis, in arborum cortice.

b. *Folia uninervia.*

160. **N. crassicaulis** C. Müll.; caulis repens, ramis *brevibus crassissimis teretibus subsimplicissimis curvatis vesiculoso-foliosis pallescentibus, ex apice coma brevi curviusculo caule multo tenuiore cylindraceo innovantibus;* folia magna, e basi parum excavata, inferne ad *auriculas parvas* cellulis alaribus laxis fuscis in orbem *majorem* dispositis praeditâ latissime ovata obtusa, *acumine longo late subulato denticulato terminata,* valde concava, nervo longo tenui evanido saepe furcato, e cellulis infima basi laxioribus fuscidulis superne pallidis v. *cyanescentibus areolata.*

*Patria.* Java: Junghuhn.

161. **N. nigricans** Nees ab Es. (Linn. XIX. 1846. p. 682.); caulis secundarius pendulus, ramis teretiusculis remotiusculis subcompressis *subtenuibus turgescentibus brevibus simplicibus v. longioribus parum ramulosis, e viridi lutescentibus, dein nigricantibus, nitidulis;* folia

caulina sicca et madefacta appressa, e basi late auriculatâ latissime rotundato-ovata, apiculata, integerrima, cochleariformi - concava, margine erecto, summo apice parum involuto, nervo tenuissimo ultra medium evanido, cellulis angustissime linearibus pallide viridibus, alaribus ad auriculas *ventricose impressis* multis laxiuscule quadratis granulosis subincrassatis viridiusculis.

*Isothecium nigricans* Brid. II. p. 363. — *Hypnum nigricans* Hook. in Kunth. Synops. Pl. Aequin. I. p. 64. — Schw. Suppl. III. II. 2. t. 284.

*Patria.* In sylvis Andium inter Pasto et Teindela prov. de los Pastos Americae aequinoctialis, alt. 1300 hexapodum: Humboldt et Bonpland. Mexico, pr. Xalapa: Deppe et Schiede.

**162. N. filifera** C. Müll.; caulis longe repens *vage ramosus*, ramis *pinnatis brevibus pallide viridibus, dein rufescentibus, teretiusculis subturgidis simplicibus, ramulis longissimis capillariformi - tenuissimis flagelliformibus confervoidibus axillaribus flexuoso-flaccidis viridibus, saepe copiosissimis et igitur glomera mollia longa formantibus*; folia caulina laxè imbricata, e basi maxime et undulate auriculata, cellulis alaribus in orbem majusculum *ventricosum* dispositis, *laxis magnis teneris pellucidis* praedita haud vel parum excavatâ latissime ovata, ad apicem undulatum acumine distincto breviusculo acuto terminata, marginibus integerrimis haud vel parum involutaceis, nervo longo tenuissimo, ante acumen evanescente integro; folia ramulorum flagelliformium *multo angustiora, e basi ob margines inferne valde suprevolutos excavata minus auriculata et cellulis alaribus paucioribus minoribus planiusculis praeditâ anguste oblonga, acumine longissimo torto terminata.*

*Pilotrichum filiferum* C. Müll. Bot. Zeit. 1848. p. 767.

*Patria.* Venezuela, prov. Merida prope Lagunetta circa Merida, altitud. 6500': Funck et Schlim 1846. Septbr. sterile legerunt. Coll. Linden. No. 991. Arborea.

Ex habitu ramorum turgidorum simplicium brevium *N. liventi* affinis, sed notis cursive impressis distinctissima.

**163. *N. rufescens*** C. Müll.; caulis repens, ramis breviusculis *turgidis viridibus rufescentibus capillarifoliis* parce divisis, acutiusculis; folia late oblonga *longissime acuminata*, apice obsolete denticulata, basi *parum auriculata*, cellulis alaribus ventricosis laxo parenchymaticis pachydermibus fuscis, nervo *tenuissimo elongato integro*.

*Patria.* Venezuela, prov. Carabobo, Cumbre de Valence, altitud. 5000': Funck et Schlim in Coll. Linden. No. 619 intermixt. 1846. Jan.

Subsectio III. **Papillaria.** Folia in series indistinctas disposita, e cellulis punctulatis papillosis composita.

a. *Caulis et rami capillares.*

**164. *N. capillaris*** C. Müll.; *dioica*; ramis pendulis *longissimis quam maxime tenuissimis capillaribus, maxime flexuosis flaccidis, flavidis*, ramulis brevissimis maxime remotis decurvatis; folia erecta laxiuscule imbricata, *angustissime lanceolata longe et tenuiter acuminata acuta*, parum concava, nervo longo tenui evanido, basi parum auriculata, cellulis alaribus paucis parvis planiusculis praedita, papillis obscura et margine denticulato-scabra, flavide viridia; perich. parum latiora, obsoletinervia, multo laxius et pellucide reticulata laevia; theca in ped. *perbrevis, perichaetio minuto* paraphysibus immersis vix instructo *inserto, minute ovalis*; dentes perist. ext. angusti, interni cilia capillaria nodosa.

*Pterogonium* sp. Hsch. in Musc. Mexic. a Deppe et Schiede lectis No. 1082.

*Patria.* Mexico: Deppe et Schiede.

b. *Caulis et rami filiformes.*

**165. *N. nigrescens*** Schw. (Suppl. III. I. 2. t. 244 excl. Syn.); *monoica*; caulis decumbens v. pendulus elongatus *filiformis rigidus flexuosus*, ramis *filiformibus ae-*



*qualibus obtusiusculis v. in stolonem tenerrimum attenuatis dense foliosis teretibus luride viridibus, dein saepe nigricantibus, brevibus simplicibus v. elongatis iterum pinnatis fasciculatim ramosissimus; folia caulina appressa, humore subpatentia, e basi hastato-dilatata, alis valde undulatis saepius speluncoso-concavis exauriculatis praedita lanceolata, ad acumen usque breve planiusculum acutum cochleariformi-concava, margine late revoluta vix crenulata, nervo ultramedio tenui pallido subcarinato, cellulis oblique seriatis rhomboidaliter linearibus angustis brevibus obscuris tenerrime papillosis, basi infima ad nervum pallidioribus; perich. stricta pallida laevia lanceolato-subulata elongate subpellucide reticulata, paraphyses permultas exsertas cellulosas nodosiuscule denticulatas includentia; theca in ped. perbrevis flavido laevi minute anguste oblonga membranacea fuscidula, operc. conico oblique rostellato, calyptra pilosa; perist. d. ext. lanceolati albidi laeves membranacei, distincte trabeculati et linea media exarati, int. in membrana vix emersa breviores capillares fugacissimi albi.*

*Pilotrichum paraphysale* C. Müll. Linn. XIX. p. 216. — An *P. nigrescens* Hsch. in Sieb. Musc. Nov. Hollandiae, No. 14, quoad patriam nobis jam suspectum, huc pertineat, e specimine imperfecto haud clare elucet. Folia magis carinata et minus cochleariformi-concava sunt. — *Isothecium radicans* Brid. II. p. 374! — *Hypnum radicans* La Pyl. in Hb. Brid. — *Pterigynandrum nigrescens* Sw. Fl. Ind. Occ. III. p. 1778. — *Hypnum nigrescens* Sw. Prodr. Fl. Ind. Occ. p. 141.

*β. illecebra*; robustior amoene nigricanti-lutescens. *Pterigynandrum illecebrum* Brid. Mant. Musc. p. 131.

*Patria.* In montibus altissimis Jamaicae ad ramos arborum praesertim *Anacardii Occidentalis* primus legit Swartz. Venezuela, prov. Caracas, ad „Los Lagunas”: Moritz; Cumbre de Caracas, altitudine 5000 pedum: Wagner, 9. Sept. 1849 c. fruct. junioribus, ad lapides in societate *N. cylindricaulis*. In Insula Hispaniola Thuiller legit. In insula Trinidad Antillarum minorum ad St. Cruz et in monte Tocuche copiosissime legit Crüger.

Species quoad colorem valde varians, notis tamen specificis, praesertim foliis usque ad acumen tantum cavis, margine late revolutis primo momento discernibilis.

**166. N. appressa** C. Müll.; *N. nigrescenti* simillima, sed caulis crassior amoene nigricanti-lutescens obtusirameus, folia e basi *quam maxime late hastatâ brevissime lanceolata*.

*Hypnum appressum* Hsch. Fl. Bras. I. p. 90!

*Patria.* Brasilia, Minas Geraës, ad terram: Martius.

Sterilis nota quidem, sed a *N. nigrescente* foliis certe distans.

**167. N. funalis** C. Müll.; caulis pendulus subtriuncialis v. procumbens vage ramosus, ramis subsecundis semiuncialibus simplicibus; folia ovato-acuminata concaviuscula, plicato-striata serrulata evanidinervia, siccitate erecta, haud tortilia, nitida lutescentia, tenuissime areolata.  $\frac{1}{4}$ .

*Pilotrichum funale* Wils. Ann. and Mag. of Nat. Hist. 1847. XX. p. 378.

*Patria.* Jamaica, Port Royal: G. M'Nab. Arborea.

*N. nigrescenti* proxima declaratur.

**168. N. Deppii** Hsch. (Musc. Mexic. Depp.); *N. nigrescenti* simillima, sed *flaccidior*, ramis magis attenuatis, folia e basi *alis coarctatis angustiore late lanceolato-acuminata acutata, usque ad apicem aequaliter concava, haud cochleariformia, margine haud revoluta, cellulis ob papillas tenerrimas creberrimas vix conspicuis veluti conflatis*; paraphyses capillares simplices v. e cellularum seriebus duabus compositae; pedunculus *subscaber*; theca e collo longiori anguste oblonga; perist. d. ext. angusti albidi subfragiles, ciliis capillaribus *fissilibus* brevioribus.

*Pilotrichum seriatum* C. Müll. Linn. XIX. p. 217. — *Pterigynandrum seriatum* Hsch. in Musc. Mexic. Depp. et Schiede.

*Patria.* Mexico: Deppe et Schiede pr. Xalapam legerunt.

169. **N. denticulata** C. Müll.; *dioica*; *N. Deppii* simillima, sed differt ramis *subtruncato-obtusis* tenuibus, minus regulariter et aequaliter pinnatis, flavo-viridibus, haud nigrescentibus, foliis caulinis *multo latioribus longissime et capillariformi-acuminatis*, margine papillis *tenuissimis distincte denticulatis*, e cellulis distinctioribus compositis, dentibus peristomii externis longioribus *magis rugulosis*, ciliis internis *in membrana longiore positis perforatis*.

*Patria.* Venezuela, prov. Caracas: Moritz.

170. **N. Africana** C. Müll.; *dioica*; *N. Deppii* simillima, sed *rigidissima*, folia longius acuminata, margine *inferne revoluta*, cellulis *minutis*; perichaetalia, pedunculus et paraphyses *N. Deppii*.

*Patria.* Prom. b. spei, Olifantshoek: Ecklon copiosissimam, sed imperfectam legit.

*c. Rami turgidi, foliis appressis.*

171. **N. illecebra** C. Müll.; *dioica*; caulis secundarius longissimus valde flexuosus foliosus, ramis curvatis densifoliis *obtusis teretibus crassis* luteo-viridibus, dein nigricantibus, remotis, simplicibus brevibus v. longioribus iterum ramulosis pinnatim divisus, *humore flaccidus mollis*; folia caulina *siccitate et humore appressa*, e basi *ob alas constrictas valde undulato-plicatas angustiore latissime cochleariformi-ovata et usque ad acumen concava plicata*, acumine lato brevi subretuso, margine valde undulato erecto ob papillas tenerrimas *vix conspicuas denticulato*, nervo tenui ante apicem evanido, cellulis *angustissime linearibus asperulis*, *ubique aequalibus et pallidis*; perich. vaginantia lanceolato-subulata, elongate laxe pellucide reticulata, obsoletinervia, paraphyses longe exsertas valde tortuosas cellulosas nodosiusculas includentia; theca in ped. *breviter exserto flavido subscabro parum curvato apice in collum incrassato erecta turgidiuscule ovalis fuscidula exannulata*, operc. conico subulato obliquo; calyptra dimidiata subpilosa; perist. d. ext.

late lanceolato-acuminati subirregulares, membranacei al-  
bidi, crassiuscule trabeculati et linea media obsoleta no-  
tati, int. aequilongi capillares carinati solidi flaccidi sub-  
angulati.

*Antitrichia cuspidata* Nees ab Es. Linn. XIX. p. 681. — *Ano-  
modon flexilis* Hmp. Linn. XII. p. 356. — *Leskea heterophylla*  
Hsch. in Musc. Mexic. Deppeanis. — *L. flexilis* Hsch. in Musc.  
Mexic. Depp. et Schied. No. 1093. — *Pilotrichum flexile* Hmp. in  
sched.

*Patria.* Mexico, Xalapa: Deppe et Schiede, nu-  
perius Aschenborn; in locis accuratius non designatis:  
C. Ehrenberg. E Guatemala comm. Kegel.

Characteribus expositis facile discernibilis.

**172. N. Miqueliana** C. Müll.; *dioica*; *N. illecebrae*  
simillima, sed tenerior *pallide viridis* nigricans; folia cau-  
lina e basi ob alas constrictas undulato-plicatas angu-  
stiore late ovato-oblonga *obtusa in mucronem brevem*  
*attenuata, vel in ramis junioribus in acumen latius et*  
*longissimum acutatum producta, maxime longitudinaliter*  
*plicata, papillis ubique distinctis, margine apice quoque*  
*coarctato; perichaetia, paraphyses, theca, operculum et*  
*peristomium N. illecebrae.*

*Patria.* Java, in prov. Buitenzorg: Hb. Miquelian.

**173. N. cirrhifolia** C. Müll.; *caulis longissimus pen-  
dulus crassiusculus nigricans, foliosus, flexuosus, ramis*  
*teretibus crassis turgidis obtusis aureo-lutescentibus, in-*  
*ferne nigricantibus, patentibus, longiuscule simplicibus*  
*flexuosis v. longioribus iterum brevissime ramulosis, niti-*  
*dis; folia caulina dense appressa apicibus recurvis, latis-*  
*sime breviter subrotundate ovata obtusa cochleariformi-*  
*concava, mucrone dimidio longiore tenui denticulato ter-*  
*minata, basi ad alas parum angustata et plicata, superne*  
*vix plicata, nervo ultramedium producto tenui, cellulis*  
*subtilibus tenerrime papillosis flavescentibus.* †.

*Hypnum cirrhifolium* Schwägr. Suppl. III. I. 1. t. 218.

*Patria.* Insula Mauritii: Guil. Sieber.

A *N. illecebra* proxima ob vestigia laudata distinctissima.

**174. N. chrysoclada** C. Müll.; *N. cirrhifoliae* simillima, sed rami parum tenuiores, folia *elongata* e basi angustiore, *auriculis maximis circinnato-involutis angulate dentatis* undulatis praedita sed margine erectâ *late lanceolata*, *acumine longissimo contorto terminata*, nervo ultra medium evanido, cellulis angustissime linearibus, ob papillas creberrimas tenerrimas veluti conflatis, vix conspicuis, opacis, basi ad nervum laevibus pallidis.

*Patria.* India Orientalis: Hb. S e n d t n e r.

Fructum non vidimus.

**175. N. Ternströmiæ** C. Müll.; caulis pendulus tenuiusculus foliosus flexuosus, ramis brevibus simplicissimis curvatis densifoliis crassis lutescentibus nitidis teretibus; folia caulina dense appressa e basi subauriculatâ late cochleariformi-oblonga, *superne longitudinaliter subplicata*, margine ubique erecto, ad acumen acutum subretusum subdenticulato, nervo tenui ante apicem evanido, cellulis elongatis angustissime linearibus *laevibus* lutescentibus, alaribus *basi ventrem magnum sistentibus quadratis laxis pachydermibus flavidis subpellucidis*.

*Hypnum Ternströmiæ* Brid. II. p. 431.

*Patria.* Nova Granada Americae meridionalis, in truncis *Ternströmiæ*.

*N. illecebrae* habitu simillima, sed characteribus expositis longe distincta. Theca ignota.

**176. N. sinuata** C. Müll.; ramis *primariis turgidis obtusis brevibus v. pendulis flaccidis valde flexuosis tenuibus, brevibus v. longioribus flexuosis capillaceis pallide albidis*; folia laxè imbricata *tenera*, ramorum primariorum latissime ovata breviter acuminata, flagellorum e basi late ovata, auriculis undulatis parvis subdecurrentibus, cellulis alaribus teneris pellucidis minutis paucis instructis, praeditâ late lanceolata, *longe flexuose acuminata, pellucida, marginibus ubique valde undulatis denticulatis*,

nervo tenuissimo breviusculo instructa, planiuscula parum plicata.

*Patria.* Mexico, inter *Neckeram cochlearifoliam* crescens: C. Ehrenberg sterilem legit.

d. *Rami turgidiusculi flaccidi laxifolii.*

**177. N. crispatula** Hook. (Musc. Exot. t. 152.); *dioica*; caulis pendulus in divisiones plures elongatas *flaccidas* divisus; divisiones ramis breviusculis simplicibus *flaccidis* flexuosis pendulis *attenuatis laxifoliis sordide lutescentibus*; folia caulina *crispatula*, humore erecto-*patula*, *laxissime imbricata*, e basi dilatate auriculatâ *hastato-lanceolata* acuminata, plicata, concava, margine erecto ubique denticulato v. serrulato, nervo canaliculato subtenui ante apicem evanido, cellulis brevibus densis subdiaphanis tenerrime papillosis, alaribus ad auriculas minutas angulate rotundatas vix ullis irregularibus parum majoribus pellucidis; perichaetia turgide exserta, foliis vaginantibus longissime acuminatis teneris appressis ubique elongate pellucide reticulatis evanidinervibus; theca in ped. *perbrevis valde papilloso* purpureo erecta *subglobo-ovalis* imperfecte annulata, operc. conico subulato obliquo; perist. d. ext. valde attenuati flavo-rufi longi trabeculati, int. aequilongi albidii, in membrana brevi, angusti, hiantes.

Brid. II. p. 237. — Schwägr. Suppl. III. I. 2. t. 229. — *Cyrtopus crispatulus* Brid. olim. — *Hypnum crispatulum* Hook. in Trans. of Linn. Soc. IX. p. 321. — *Hookeria crispatula* Hook. et Grev. ex Montagne!

*Patria.* Nepal: Buchanan et Gardner.

Calyptram non vidimus.

**178. N. serrulata** Brid. (II. p. 238.); *dioica?* caulis secundarius elongatus *densifolius robustus mollissimus*, in ramos patentes breves simplices *vix attenuatos densifolios* v. longiores iterum pinnatos divisus, lutescens *subflaccidus* flexuosus; folia caulina *densius imbricata*, e basi *perfecte lanceolata vix auriculata*, non *hastato-dilatata* longius acuminata, parum plicata, concava, serrulata,

margine ubique erecto, nervo ante apicem evanido *carinato*, *haud canaliculato*, cellulis *angustissime linearibus longioribus* parce punctulatis, alaribus ad auriculas *parum distinctas* subimpressas vix ullis laxiusculis parvis pelucidis.

*Pilotrichum serrulatum* P. B. Prodr. p. 83. — *Hypnum ericetorum* Brid. Sp. Musc. II, p. 97.

*Patria.* Insula Bourbonis, Plaine des Chicots, ad terram sub Ericis cum Sphagnis: Bory St. Vincent.

A *N. crispatula* affini notis designatis differt. Fructus adhuc ignotus.

**179. N. Dozyana** C. Müll.; *dioica?* caulis longissimus pendulus filiformis foliosus flexuosus flaccidus, *pallide viridis*, ramis pendulis longiusculis mollissimis, *apice gemmaceo-foliosis*, robustis crassis laxifoliis flexuosis simplicibus v. longioribus iterum ramulosis pinnatus v. bipinnatus; folia caulina *laxissime imbricata, patentia*, e basi *marginibus coarctatis subconniventibus angustiore subauriculatâ* late lanceolato-acuminata, *cymbiformi-concava, haud plicata, sed ad acumen elongatum latum longiuscule acutatum maxime undulata, ubique subdenticulata*, margine erecto, nervo elongato evanido tenui, *nec canaliculato nec carinato*, cellulis *N. serrulatae*, alaribus subnullis; perich. erecta, apice recurva, oblonga acuminata v. cuspidata, infima ovata acuta, obsoletinervia; theca erecta v. pedunculi scabri *flexura inclinata*, oblongo-cylindrica, operc. conico-acuminato curvato, calyptra pilosa.

*N. longissima* Dz. et Molkb. Ann. des sc. nat. 1844. p. 313.

*Patria.* Java, Borneo, Sumatra.

A *N. crispatula* et *serrulata* proximis vestigiis distinctius explicatis longe separatur. Fructum non vidimus.

**180. N. Wallichii** Decand. (in Hb. Bridel.); caulis longe pendulus *tenuissimus foliosus*, ramis *remotissimis laxissime foliosis flaccidissimis* brevibus simplicibus v. longioribus parce divisis *e lutescenti rufescentibus*; folia

caulina e basi *vix auriculata longe anguste lanceolato-acuminata subpilifera planiuscula, alis basi vix undulatis et nunquam plicatis*, margine ubique erecto *distincte serrulato*, nervo pallido ultramedio carinato, cellulis elongate angustissime linearibus, ob papillas creberrimas tenerrimas *maxime opacis viridiusculis*, alaribus in orbem fugacem minutum conglomeratis minutis.

*Hypnum Wallichii* Brid. II. p. 416.

*Patria.* Nepal, in *Berberide Wallichii*: Decandolle in Hb. Brid.

Virtutibus accuratius expositis ab omnibus affinibus recedit.

181. **N. abietina** Hook. (Musc. Exot. t. 7.); caulis primarius repens, divisionibus pluribus erectis *elatis gracilibus*, plerumque *valde breviter et simpliciter struthiopteroideo-pinnatis*, basi indivisis subaphyllis, *ramis attenuatis* patentibus subdistantibus; folia caulina amoene viridia undique imbricata erecto-appressa, humore laxè disposita, ovato-deltoidea acuminata, ramea ovata subacuminata, subintegerrima, interdum subplicata, margine saepe paulum involuto, nervo valido excurrente concolori, cellulis subtilissimis, basi linearibus flexuosis brevibus; perich. integerrima parva enervia, ext. ovato-rotundata, breviter acuminata, valde concava, interiora longiora, pedicellum vaginantia; theca *breviter exserta* ovata annulata badia, operc. conico breviter rostrato subrecto; calyptra conico-dimidiata glabra pallide badia; perist. d. ext. breves lanceolati angusti dense trabeculati fusciduli, int. filiformi-setacei carinati nodosiusculi. †.

Schw. Suppl. II. I. p. 154. t. 140. — *Pilotrichum abietinum* Brid. II. p. 258.

*Patria.* In Americae borealis plaga occidentali: Menzies 1792.

Sectio IX. **Dichelyma** Myrin in Act. Acad. Reg. Sc. Holm. — Caulis *fluitans* irregulariter pinnatus, pleurocarpicus et cladocarpicus, ramis falcatis. Folia *secunda vel falcata, elongate lineari-reticulata*.



Sectio pulcherrima, *Fontinali* generis *Pilotrichi* analoga, procul dubio ad *Neckeras* revocanda est; nam peristomium, etsi modificatum, ab illo *Neckeracearum* typice non refugit, ut *Neckera Moritzii*, *Pilotrichum densum*, *Dichelyma capillaceum*, *leuocladum* et *subulatum* ostendunt. — Omnes congeneres rarissime fructificantes.

Subsectio I. **Eudichelyma.** Rami *apice falcati*; folia *falcato-secunda*; theca e foliis perichaetialibus *ocreate-convolutis contortis emersa*; calyptra *thecam superans et basi includens*.

a. *Peristomium internum omnino cancellatum.*

182. **N. falcata** C. Müll.; dioica; cespites longe fluitantes sordide virides lutescentes v. rufescentes nitidi; caulis firmus, ramis elongatis divisis v. brevioribus simplicibus, apice falcatis subpinnatim divisis, gracilis flexuosus; folia caulina laxè imbricata secunda, elongate anguste lanceolato-acuminata falcata complicato-carinata, margine superne convexiusculo denticulato, nervo canaliculato subexcurrente rufescente, cellulis elongatis angustis pellucidis virescentibus, alaribus vix ullis laxioribus fuscidulis; perichaetia longissime cylindracea angustissima, foliis ocreate contorte convolutis longissimis enervibus tenuiter membranaceis pellucidius reticulatis integerrimis; theca in ped. breviuscule exserto rufo laevi erecta cylindraceo-oblonga aequalis macrostoma exannulata fusca, operc. conico acuminato subobliquo rubro magno; perist. d. ext. elongati anguste lanceolati in crura duo hic illic cohaerentia, trabeculis fuscis pachydermibus amoene rotundate articulata fissi, pallide fusci rugulosi, int. conum elongatum fuscum pulcherrime regulariter cancellatum sistentes externos longe superantes laeves; calyptra longe subulata albida laevis, thecae basin includens subcontorta.

*Dichelyma falcatum* Myrin in Act. Reg. Acad. Sc. Holm. 1832. p. 274, t. 6. — Bryol. Europ. Fasc. 16. Fontinaleae p. 6. t. 1. — *Fontinalis falcata* Hedw. Musc. Fr. III. p. 57. t. 24. — Brid. II. p. 659. — *F. capillacea* Linn. Fl. Suec. n. 982.

*Patria.* In rivulis frigidis regionis subalpinae ad saxa Scandinaviae, ubi primum detecta, per Gothiam,

Norvegiam, Sueciam, Lapponiam et Finlandiam borealem; in Germania ad exitum stagni Sudetorum quod „der kleine Teich” dicunt: Sendtner 1838. — *Aug., Sept.*

Peristomium pulcherrimum. Pl. mascula femineae omnino similis, floribus permultis hexaphyllis angustis, foliis ovato-acuminatis enervibus.

b. *Perist. internum apice solo cancellatum.*

183. **N. capillacea** C. Müll.; dioica; *N. leuocladae* simillima, sed lutescenti-fuscescens, folia longissime et tenuissime subulata, angustiora, ad subulam parum denticulata; perich. obtusiora; theca *N. leuocladae* vix emergens, operculo et calyptra simili; perist. d. ext. *N. falcatae*, valde rugulosi, interni externis similes pallidius fusci, apice cancellati, valde rugulosi.

*Dichelyma capillaceum* Br. Europ. Fasc. 31. 1846. Suppl. Dichelyma. c. ic. — *D. capillaceum*  $\beta$ . *subulifolium* Br. Europ. Fasc. 16. 1842. Fontinaleae. Dichelyma, p. 8. tab. 3. fig.  $\beta$ . 1, 2, 2. a. — *Fontinalis capillacea* Dicks. Crypt. Fasc. 2. p. 1. — Brid. II. p. 660. — *F. capillacea* calycibus styli instar cuspidatis. Dillen. Musc. p. 260. t. 33. f. 5. — *F. falcata* Hmp. Linn. XIII. 1839. p. 45!

*Patria.* America septentrionalis, ubi in Pennsylvania primus legit colonus Bartram, qui Dillenio communicavit, dein Beyrich et Drummond et nuperius ad lapides in rivulis prope Bloomingdale Novi Eboraci: Torrey in Sulliv. Musc. Allegh. No. 151. In rivulis Scotiis: Dickson; in Sueciae prov. Westermannia prope Odensvi: Dybeck. — *Ad aestatis finem.*

c. *Perist. internum nunquam cancellatum.*

184. **N. leuoclada** C. Müll.; dioica; *N. falcatae* simillima, sed gracilior pallide virescens, folia breviora lanceolate abrupta haud subulata et parum falcata, apice distincte serrata; theca e perichaetio elongato vix emergens brevius oblonga, longius operculata; perist. d. ext. late lanceolati tenues obtusiusculi aequaliter fusci, subrugulosi, trabeculis tenuibus in articulos quadratos haud rotundatos divisi, ad lineam longitudinalem multo minus se-

cedentes, interni: cilia tenera simplicia perfecte libera fusca subrugulosa et subcarinata; calyptra *N. falcatae*.

*Dichelyma capillaceum* Br. et Sch. Br. Europ. Fasc. 16. 1842. Fontinaleae. *Dichelyma*, p. 7, excl. Syn. Dillen. et Dickson. t. 3; excl. fig.  $\beta$ . 1, 2, 2. a. — Myrin in Act. Reg. Acad. Sc. Holm. 1832. t. 7. A. — *D. pallescens* Br. Europ. Fasc. 31. 1846. Suppl. *Dichelyma*, in excurs. — *Fontinalis capillacea* Hook. Drumm. Musc. Amer. 1832. No. 243.

*Patria.* America septentrionalis, ad radices arborum, ad rivulos pr. Holland-Landing: Drummond.

Peristomium *Neckerae* perfectum!

Subsectio II. **Cryphaadelphus.** Rami *stricti, nunquam falcati*; folia *erecta vix secunda*; theca in foliis perichaetialibus *recte imbricatis immersa*; calyptra *minuta operculum solum obtegens*.

*Dendropogo Cryphaeae* generis *Pilotrichi* sectio parallela.

185. **N. subulata** C. Müll.; dioica; cespites longe fluitantes pallescentes, caulis longissimus flaccidissimus gracilis remotifolius, ramis flaccidis elongatis patentibus gracilibus curvatis inaequalibus apice subulatis pinnatim divisus; folia caulina laxissime imbricata, vix secunda, longiuscule lanceolata, valde complicato-concava, marginibus subinvolutis apice denticulatis, nervo flaccido tenui rufescente ante apicem evanido, cellulis elongatis laxiusculis pellucidis, alaribus multo majoribus laxioribus tenerrimis pellucidis; perichaetia breviuscule emersa, foliis longe lanceolatis enervibus integerrimis imbricatis erectis; theca immersa ovalis, operculo convexo oblique rostellato, calyptra minuta cucullata laevi tenera obtecto; perist. d. ext. breviuscule lanceolati, maxime hiantes, crocei, minutissime punctulati, siccitate erecto-incurvi, interni ciliaeformes tenuissimi multo longiores, inferne nodulosi et appendiculati, summo apice appendicibus tenuibus conflatis cancellati, rufescentes laeves.

*Dichelyma subulatum* Myrin in Act. Reg. Acad. Sc. Holm. 1832. t. 7. B. f. 10—11. — Br. Europ. 1842. Fasc. 16. Fontinaleae. *Dichelyma*; p. 9. t. 2. — *Fontinalis subulata* P. B. Prodr. p. 58. — Brid. II. p. 661.

*Patria.* In aquis purioribus Americae septentrionalis, ubi in Georgia detexit Palisot de Beauvois; in Ludovicia: Drummond; in Arkansas ad lapides rivulorum ad Little Rock m. Martii 1837. sterilem legit Engelmann.

#### Neckerae dubiae.

1. **N. ? subuliformis** Hsch. et Reinw. (Nov. Act. Acad. Caes. Leop. XIV. II. Suppl. p. 715.); caulis debilis procumbens, apice ascendens, 4-pollicaris, subpinnatus, ramis simpliciusculis apice attenuatis s. subuliformibus, alternantibus dense foliosis purpurascens; folia laxo imbricata erecto-patentia, cordato-acuminata, obscure serrulata, concava, basi plicata, lurido-brunnea vel flavescens, nervo supra medium evanescente, cellulis confertis sexangularibus. †.

*Patria.* Java.

Ex animadv. auctorum *N. flavescens* Hook. affinis, sed foliis disparsis cordato-acuminatis serrulatis concavis uninervis recedit.

2. **N. ? plumosa** Hsch. et Reinw. (Nov. Act. Acad. Caes. Leop. XIV. II. Suppl. p. 715.); caulis repens vage ramosus, fuscus, ramis erectis, pinnatim interdum bipinnatim ramosus, ramulis brevibus alternantibus ut caulis et rami foliosis; folia bifaria erecto-patentia, siccitate crispabilia, lanceolato-linearum, acuta, basi concaviuscula, apice undulata, serrata, lurida, nervo infra apicem evanido flavescens, cellulis spissis. †.

*Patria.* Java.

#### Gen. IV. **Pilotrichum** P. B.

Prodr. p. 37. ex parte. — *Endotrichum* Dz. et Molkb. — *Symphysodon* eor. — *Callicosta* C. Müll. — *Dendropogon* Schimp. — *Cryptangium* C. Müll. — *Pterobryum* Hsch. — *Cryptotheca* Hsch. — *Garovaglia* Endl. — *Erpodium* Brid. — *Anoectangium* al. — *Cryphaea* Brid. — *Hydropogon* Hook. — *Hedwigia* Ehrh. — *Neckera* Hdw. et al. — *Hypnum*, *Fontinalis* antiq.

*Calyptra mitraeformis.* Peristomium et caetera *Neckerae*.

*Patria.* Per totum orbem terrarum.

Genus *Neckerae* proximum et ex toto parallelum.

Sectio I. **Distichia** Brid. ex parte. — Caulis *complanatus*, foliis *distiche imbricatis*, oblongo - ligulatis. Theca immersa.

*Euneckeras* generis *Neckerae* iterantes.

1. **P. undulatum** P. B. (Prodr. p. 83.); *hermaphroditum*; caulis longissime repens; divisiones elongatae decumbentes ubique loriformi - planissimae aequales, irregulariter pinnatae *luteo-viridissimae*, maxime *rugifoliae*, firmae; folia caulina densissime imbricata, e basi asymmetrica *undulato-auriculata* coarctatâ late ligulata truncato - obtusissima, apice parum excavata, margine erecto integro parum crenulato, nervo unico tenui longiusculo, cellulis rotundatis v. *ellipticis conflatis virescentibus*; perich. ext. squarroso - reflexa *majuscule* vaginanti - ovata subito breviter acuminata pallidissima, interna: paraphyses in foliola lineari - subulata longa subtrichoidea loriformia transita; theca immersa oblongo - cylindracea pallida, dein fusca, vix annulata, operc. conico - subulato *recto*, calyptra glabra, paraphysibus folioliformibus saepe oblecta *mitraeformis*, pluries *laciniata*; perist. d. ext. *lanceolato-subulati lutei fragiles*, linea media obsoleta notati, *laeves*, remote *articulati*, int. *aequilongi anguste subulati amoene flavidi carinati*.

*Daltonia undulata* Arn. Disp. p. 54. — *Neckera Distichia undulata* Brid. II. p. 241. — *Neckera undulata* Hdw. Musc. Fr. III. p. 51. t. 21. — *Hypnum Jamaicense* Gmel. Syst. Nat. II. p. 1341. — *Fontinalis crispa* Sw. Prodr. p. 138. — *Sphagnum pennatum*, undulatum, vagina pilosa. Dill. Musc. p. 294. t. 32. f. 8.

*Patria.* Per Antillarum archipelagum totum et oras vicinas vulgatissimum, e planitie usque ad altitudinem 5000 pedum ascendens, lapides humidus et radices arborum habitans. — Jan., Febr., Majo, Septbr.

A *Neckera disticha* simillima analoga notis cursive impressis longe recedit.

Sectio II. **Fontinalis** Dill. Musc. p. 254. — Plantae hydrophilae fluitantes elongatae cladocarpicae maxime ramosissimae; caulis plus minus distincte trifarie foliosus, pinnatus; folia elongate laxe reticulata enervia. Theca immersa.

*Dichelymati* generis *Neckerae* sectio analoga. — De peristomio adnotationes in *Neckeras* conferantur. — Nomen *Fontinalis* nomini *Pilotricho* senectute praestat; tamen ulterius praetulimus, quum prius auctores *Neckeraeis* hydrophilis semper imposuerint.

a. *Theca diploperistomata.*

**2. P. antipyreticum** C. Müll.; dioicum; cespites longissime fluitantes *lutescenti-rufescentes* nitidi; caulis ramis elongatis flaccidis *trigonis turgidis* ramulosis maxime divisus pluries irregulariter pinnatus; folia caulina *distincte trifaria conferta*, e basi angustiore longe decurrente, cellulis alaribus magnis laxissimis fuscidulis praedita subventricosâ late ovato-acuminata, maxime *complicate incurvo-carinata*, subacutata, enervia, integerrima, margine erecto *basi ad alam unam v. alteram extrorsum curvato*, cellulis elongatis laxis, utriculo primordiali *serpentine flexuoso maxime distincto* praeditis; perichaetia turgidissima exserta, foliis appressis latissime rotundato-ovalibus obtusissimis maxime laxe reticulatis; theca immersa turgide ovalis subsessilis aequalis, exannulata, leptodermis, operculo turgide conico obtuso firmo; perist. d. ext. robustissimi purpurei elongati latissime lanceolato-acuminati, superne saepius cohaerentes, ubique maxime sulcato-trabeculati, linea longitudinali exarati, reflexi, interni tenerrime capillares purpurei, trabis permultis tenerrimis purpureis longis transversim confluentibus, 1—2 geniculatis, ad genicula appendiculatis, conum pulcherrime cancellatum sistentes.

*Fontinalis antipyretica* L. Sp. Pl. p. 1571. — Br. Europ. Fasc. 16. 1832. Fontinaleae. *Fontinalis*, p. 4. t. 2. — Brid. II. p. 655. — *F. trifaria* Voit. Musc. Herbip. p. 125. — *F. triangularis* Gilib. — *F. triangularis major complicata*, e foliorum alis capsulifera. Dill. Musc. p. 254. t. 33. f. 1. — *Hypnum antipyreticum* Neck. Meth. Musc. p. 191.

*Patria.* Ad radices arborum, rupes, lapides et ligna in aquis fluentibus rarius stagnantibus per totam Europam et Americam septentrionalem, e planitie usque ad regionem montosam ascendens. — *Vere.*

E pulcherrimis muscis. Pl. mascula femineae similis, floribus axillaribus 9-phyllis gemmiformibus. Notis cursive impressis a *P. squamoso* certe differt.

**3. *P. squamosum*** C. Müll.; dioicum; *P. antipyretico* simile, sed caulis gracilior compressus, haud distincte trigonus, atrovirens, apice in subulam longiusculam caudatam julaceam productus; folia caulina trifaria dense imbricata, elongate anguste lanceolata cymbiformi-concava, stricta, haud carinato-incurva, margine ubique erecto, nunquam ad alas reflexo, cellulis utriculo primordiali indistincto haud serpentine flexuoso praeditis, alaribus magis ventricosis; caetera *P. antipyretici*.

*Fontinalis squamosa* L. Sp. Pl. p. 1571. — Br. Europ. 1842. Fasc. 16. p. 5. t. 3. — Brid. II. p. 657. — *F. antipyretica*  $\beta$ . minor Brid. II. p. 657. — *F. squamosa tenuis sericea*, atrovirens. Dill. Musc. p. 259. t. 33. f. 3. — *Hypnum squamosum* Neck. Meth. Musc. p. 192.

*Patria.* In locis iisdem cum praecedente per totam Europam rarius, in America septentrionali vulgare. — *Vere, aestate.*

**4. *P. Dalecarlicum*** C. Müll.; dioicum; *P. squamoso* simillimum, sed folia caulina basi longius decurrente, cellulis alaribus planis praedita; perich. interna longiora acuta ultra operculum porrecta; theca minor, operculo brevior; perist. d. ext. remotius articulati, articulis magis prominulis, ultra medium lacunosi, interni trabeculis transversalibus apicalibus conflatis cancellati, inferioribus liberis, omnibus haud appendiculatis lutescentibus.

*Fontinalis Dalecarlica* Br. Europ. Fasc. 31. Suppl. c. tab. 1.

*Patria.* In rivulis et fluviis Sueciae praecipue Dalecarliae nec non Norvegiae australis: Lindblom, Thedenius, Clason, W. P. Schimper. — *Aestate.*

Sterile tantum vidimus.

5. **P. Strömbäckii** C. Müll.; *dioicum*; *P. squamoso simillimum*, tenellum molle, *inferne maxime remotifolium gracillimum*; folia caulina *mollissima*, facile dilacerantia, *inferne maxime patentia*, anguste lanceolata, basi parum decurrente, cellulis alaribus parum ventricosis paucis praedita, cellulis caeteris *tenerrimis*, utriculo primordiali amoenae chlorophylloso, dein serpentine flexuoso tenerrimo repletis; perich. plerumque praemorso-dilacerata; theca parva elliptica magis leptodermis; perist. d. ext. angustiores, magis sulcate trabeculati, *uti interni*, illis *P. squamosi* simillimi, *ubique granulose papilloso*.

*Fontinalis hypnoides* Hartmann Skandinaviens Flora, ed. 4. p. 434. — Br. Europ. Fasc. 31. Suppl. c. tab. 4, sed perist. int. dentibus perfecte horizontalibus false delineatis.

*Patria.* Ad palcas in rivulo lente fluente prope officinam ferrariam Oslättforsbruck Gestriciae Sueciae, ubi Strömbäck detexit et cum W. P. Schimper 1844 iterum legit. — *Augusto*.

Species pulchella distincta.

Forte huc pertinentes.

6. **P. distichum** C. Müll.; *dioicum?* caulis elongatus fluitans, ramificatione congenerum; folia caulina *siccitate caulem convolutaceo-amplectentia*, apicibus *patientioribus*, apice ramulorum magis *bifarie patentia*, remota, sordide viridia, anguste lanceolato-acuminata, *ubique cylindraceo-convoluta*, enervia integerrima, cellulis *anguste linearibus* elongatis, alaribus paucis laxis longis planis ad alam decurrentem positis.

*Fontinalis disticha* Hook. et Wils. in Drumm. Musc. Amer. II. No. 151. — *F. disticha* Sulliv. Musc. Allegh. No. 190. — *F. disticha* var. statu aestivo. Sulliv. l. c. No. 192!

*Patria.* America septentrionalis: Drummond, in rivulis prope Mobile Alabamae: Sullivant.

Characteribus ab omnibus congeneribus diversum.

7. **P. sphagnifolium** C. Müll.; *dioicum?* caulis elongatus fluitans, ramificatione congenerum; folia caulina *multo*



*latiora*, e basi angustiore convoluta longe decurrente *latis-  
sime ovata obtuse acuminata*, supra basin haud con-  
*voluta*, sed concava, *apice planiuscula*, enervia integerri-  
*ma*, *siccitate a caule multo magis divergentia*, lutescen-  
*tia*, *cellulis brevibus amplis laxis*, *utriculo primordiali  
serpentino maxime evoluto repletis sphagnoideis*.

*Fontinalis disticha* var. statu vernali. Sulliv. Musc. Allegh.  
No. 191!

*Patria.* Ad lapides in rivulis sylvestribus juxta Co-  
lumbus Ohionis: Sullivan t.

Notis laudatis a *P. disticho* certe differre videtur.

b. *Theca haploperistomata.*

8. ***P. fontinaloides*** C. Müll.; monoicum; caules  
elongati fluitantes gracillimi, irregulariter dichotome pin-  
nati valde ramosi, foliis remotis, ramulis fertilibus exce-  
ptis, plerumque destituti, pallide virides molles tenelli;  
folia caulina ad ramulos fertiles breves dense imbricata,  
e basi angustiore ovalia vix acuminata, concava, apice  
remote serrata, enervia, margine erecto, cellulis laxis  
mollissimis chlorophyllosis, alaribus paucis subventricosis  
laxioribus; perich. magis acuminata; theca immersa sub-  
sessilis parva ovalis macrostoma, exannulata, operc. pla-  
niusculo recte rostellato, calyptra longiuscule campanu-  
lata laevi; perist. d. breves late lanceolati obtusiusculi,  
dense trabeculati, ad lineam longitudinalem subseceden-  
tes, fusciduli, laeviusculi.

*Hydropogon fontinaloides* Brid. I. p. 770. — Schw. Suppl. IV.  
t. 307. — *Dryptodon fontinaloides* Brid. I. p. 205. — *Grimmia  
fontinaloides* Hook. Musc. Exot. t. 2.

*Patria.* In ripa fluminis Orinoco, inter Atures et  
San Fernando, ad arbores, quarum radices aquis obiectae  
sunt: Humboldt et Bonpland. In Brasiliae flumini-  
bus Amazonum, Solimoês, Japurá et Rio Negro, a Mar-  
tius collectum Hornschuch indicavit; an verum, du-  
bii sumus.

*P. gymnostomo* simillimum.

c. *Theca gymnostoma.*

9. **P. gymnostomum** C. Müll.; monoicum; caulis longe fluitans mollis tener flaccidissimus pallescens, valde pinnatim ramosus, ramis elongatis iterum pinnatis; folia caulina remota, e basi longiuscule angusta ovata, obtuse acuminata, integerrima, enervia, margine erecto, cellulis laxissimis mollibus pellucidis, primum utriculo primordiali tenero repletis; perichaetia in ramulo densius folioso longiusculo gracillimo angustissima, foliis magis lanceolatis et acuminatis; theca immersa cylindracea aequalis exannulata, leptodermis mollis, operc. planiusculo recte rostellato, calyptra conica laevi.

*Cryptangium Schomburgkii* C. Müll. Linn. XVII. p. 599. — *Fontinalis gymnostoma* Br. et Sch. Br. Europ. Fasc. 16. Fontinaleae; p. 4. t. 1.

*Patria.* Guiana Anglica in fluviis; Robert Schomburgk.

*P. fontinaloidi* habitu simillimum.

Sectio III. **Meteorium** Brid. II. p. 264. — Plantae pleurocarpicae elongatae pendulae dendrophilae; caulis ubique imbricatim foliosus elongatus pinnatus; folia cordato-amplexicaulia, elongate lineari-reticulata.

*Pseudopilotricho* generis *Neckeræ* sectio parallela.

A. *Folia erecto-patentia.*

10. **P. genuflexum** C. Müll. (Linn. 1844. p. 676.); dioicum; caulis longiusculus pendulus mollissimus dichotome divisus flexuosus albidus, ramis flaccidissimis flexuosis elongatis, apice gemmaceo-foliosis, folia caulina laxe conferta erecta, cymbiformi-oblonga, in acumen basi valde coarctatum et sinuatum longissimum tenuissimum genuflexum, superne dentibus reflexis hamato-dentatum producta, membranacea pallidissima, margine erecto v. subinvoluta usque ad acuminis medium integerrimo, nervo jam basi vel superne furcato obsoleto maxime complanato, cellulis oblongis ampliusculis v. veluti ellipticis conflatis; perich. oblongo-vaginantia acuminata integer-

rima tenera enervia; pedunculus brevis laevis rufus, calyptra junior campanulata laevis fuscidula; theca annulata teres inclinata, operc. convexo obtuse mucronato.

*Hookeria ancistrodes* Mont. Ann. sc. nat. 1845. p. 676. et in Hist. de Chile Bot. Crypt. t. 4. f. 4.

*Patria.* Chile australis: Philippi. In sylvis siccis prov. Chiloë, mense Dec.: Gay.

Characteribus cursive impressis cum specie alia nunquam confundendum, memorabile. Fructum non vidimus.

**11. P. tumidum** Brid. (II. p. 265.); caulis primarius repens filiformis nudus; secundarius pendulus longiusculus crassiusculus lutescens nitidus *tumidulus*, dichotome divisus; folia caulina laxissime imbricata *tumidule patula*, humore maxime patentia, e basi subauriculato-rotundata amplexicauli *latissime ovata breviter late oblongo-lanceolata*, caviuscula, margine erecto *ubique erose denticulato*, nervo flexuoso distincto ante apicem abrupto, *cellulis in membranam scariosam lutescentem nitidam conflatis ellipticis vix conspicuis*, alaribus ad auriculas decurrentes rotundatas vix impressas vix ullis pellucidioribus; perichaetia lateralia solitaria turgida, foliis *angustissime lineari-lanceolatis subplanissimis*, nervo *latissimo obsoleto subexcurrente percursis, apice denticulatis, e cellulis elongatis in membranam luteam conflatis compositis*; theca immersa majuscule ovata fusca, operc. conico longe acuminato recto; perist. d. ext. late lanceolati, laeviter trabeculati, linea longitudinali fere divisi, cartilaginei amoene aurantiaci, int. aequilongi ciliiformes concolores, basi liberi.

*Neckera tumidula* Hook. in Wallich. Catal. No. 7613. — *N. tumida* Dicks. mst. in Hook. Musc. Exot. Annot. ad *Neck. filamentosam* t. 158! ubi pauperrime descripta.

*Patria.* India Orientalis, Nepal: Wallich. Ad filices Indicas collectum comm. amic. Sendtner.

Calyptram non vidimus.

**12. P. filamentosum** Brid. (II. p. 264.); caulis repens, secundarius *longissime pendulus*, in ramos breves

pinnatim dispositos v. elongatos dichotomos partitus, crassus turgidus, flavo-viridis, inferne fuscescens; folia caulina imbricato-patula patentissima, e basi angustiore ovata, *acumine elongato piliformi valde flexuoso ad basin undulato terminata*, margine erecto integerrimo, concava, nervo tenui ante acumen evanido; perich. multo minora *ovata concava sinuato-obtusa, pilo longo subflexuoso terminata, nervo obscuro, paraphyses numerosas includentia*; perichaetia *parum exserta*; theca in ped. *breviusculo laevi suberecta, oblongo-cylindracea*, pallide fusca, operc. conico rostrato vix obliquo, calyptra junior mitraeformis alba, pilis longis obsita; perist. duplicis d. *P. tumidi*. †.

*Daltonia filamentosa* Arn. Disp. p. 55. — *Neckera filamentosa* Hook. Musc. Exot. t. 158.

*Patria.* Nepal, in arboribus: D. Gardner.

A *P. tumido* habitu affini characteribus accuratius expositis longe differt.

### B. *Folia squarrosa.*

#### a. *Folia longe acuminata.*

**13. P. squarrosus** C. Müll.; caulis pendulus flexuosus robustus, irregulariter pinnatus lutescens, turgidus; folia caulina *distincte squarrosa densa*, e basi *latis-sime ovata inferne auriculato-rotundata amplexicauli in acumen elongatum tortum superne tenue producta, ubique denticulata*, caviuscula, *margine undulato*, nervo tenui ante acumen evanido, cellulis *elongate linearibus angustis pellucidis*, alaribus ad auriculam *in orbem ventricosum pellucidum congestis quadratis pachydermibus*.

*Neckera squarrosa* Hook. in Wallich. Catal. No. 7619. — Harvey in Hook. Ic. Pl. Rar. t. 22. et in Lond. Journ. of bot. 1840. p. 14 c. descript.

*Patria.* India borealis, ubi in Nepal vulgare videtur: Wallich.

Fructus ignotus.

14. **P. patulum** C. Müll.; *dioicum*; *P. Tovariensi* simillimum, sed caulis pendulus turgidus vel filiformis; folia valde reflexa e basi longius angustiore semivaginante sensim dilatata, late lanceolata, longe tenuiter flexuose acuminata, tenerrime denticulata, nervo in acumen evanido tenuissimo. †.

*Hypnum patulum* Sw. Prodr. Fl. Ind. Occ. p. 140. — Hdw. Sp. Musc. p. 279. t. 73. — Brid. II. p. 514. — *H. cirrhiferum* Spreng. in Brid. II. p. 410!

*Patria.* Jamaica: Swartz in montibus editissimis versus summitates ad arborum radices atque ipsos ramos legit. Hispaniola: Bertero. Mexico, Xalapa: Deppe et Schiede.

A *P. Tovariensi* proximo notis expositis distat.

b. *Folia breviter acuminata.*

15. **P. patens** C. Müll.; caulis elongatus decumbens foliosus crassiusculus, ramis remotis brevibus obtusis, luteo-viridibus nitidis; folia caulina squarrosa, e basi subcordata angustiore coarctata latissime rotundato-ovata, breviter acuminata, usque ad acumen caviuscula, implana, margine haud undulato erecto tenuissime remote denticulato, nervo tenuissimo evanido, cellulis elongate angustissime linearibus subconfatis lutescentibus, alaribus laxiusculis fuscidulis in orbem parvulum ventricosum dispositis.

*Isothecium patens* Brid. II. p. 364. — *Hypnum patens* Hook. Musc. Exot. t. 56.

*Patria.* In convallibus Andium Granatensium inter Almaguer et Pasto, elevatione 4800—6000 pedum: Humboldt et Bonpland.

A *Neckera squarrosa* Hook. affini characteribus explicatis differt.

16. **P. recurvifolium** Hsch. (Fl. Bras. I. p. 58.); *dioicum*? caulis saepe ultrapedalis repens v. pendulus, remotifolius, ramis breviusculis v. longioribus subsimpli- cissimis dense foliosis subpinnatus; folia ramulina 4—5-faria, e basi angusta late cordato-ovata mucronate acu-

*minata*, carinato-concava, reflexa, amoene viridia, nervo debili evanido, tenuissime serrulata, cellulis angustissime linearibus; perich. ovato-acuminata, apice paullum patulo; theca in ped. perbrevis rufo laevi apice incrassato erecta obovata badia, operc. conico subulato recto, calyptra campanulata multifida longe pilosa obtecto; perist. d. ext. longissimi lanceolato-subulati rufescentes solidi sulcato-trabeculati, int. aequilongi, in membrana brevi positi late lanceolato-subulati flavescens medio valde hiantes. †.

*P. patulum* Brid. II. p. 759, excl. Syn. Hedwig. — *Neckera patula* Schw. Suppl. II. II. 1. p. 45. t. 165, excl. Syn. Swartz. et Hedwig.

*Patria.* Brasilia, ad corticem arborum in Sierra d'Estrella: Beyrich, Aug.

*P. patulo* habitu proximum.

17. **P. Tovariense** C. Müll.; *dioicum*; caulis longissimus repens v. pendulus filiformis, ramis remotissimis v. densius approximatis brevibus turgidis squarrosifoliis viridissimis irregulariter pinnatus; folia caulina dense imbricata, e basi auriculato-cordata longius angustiore reflexa sensim dilatata late ovata ad acumen usque concava, acumine brevi reflexo, margine ubique erecto et denticulato, nervo tenuissimo ante apicem evanido, cellulis angustissime linearibus.

*P. recurvifolium* Hmp. Linn. XX. p. 92. — *Hypnum patulum* C. Müll. (non Sw.) Linn. XIX. p. 219.

*Patria.* Venezuela, Tovar, elevatione 5500 pedum: Moritz. No. 175.

Fructum non vidimus. A *P. patulo* characteribus laudatis differt.

18. **Pilotrichum auronitens** Hsch. (Fl. Bras. I. p. 59.); caulis assurgens rigidus, ramis erectis brevibus secundis subgracilibus stramineis; folia caulina patentissima, laxè imbricata, e basi marginibus conniventibus parum reflexis maxime coarctata brevissima utrinque ad alas subventricose impressâ subcordate ovato-acuminata, acumine semel torto breviusculo, planiuscula, margine

erecto *ubique serrulato*, nervo tenui flavido evanido, cellulis angustissime linearibus longiusculis pellucidis, alaribus ad alas impressas vix ullis.

*Patria.* Brasilia aequinoctialis: a Martius.

Characteribus facile discernibile, sterile solum notum.

**19. P. stramineum** C. Müll.; caulis elongatus repens filiformis, ramis brevissimis simplicibus subapproximatis squarrosifoliis subgracilibus stramineis nitidis pinnatus; folia caulina *e basi vix cordata et haud coarctata anguste lanceolato-acuminata, carinata*, margine ubique erecto serrulato, nervo tenui ante apicem evanido, cellulis angustissime linearibus, alaribus *subnullis*.

*Patria.* Chile: Pöppig foliis adhaerens sed sterile collegit.

A *P. auronitente* simillimo vestigiis expositis differt.

#### Meteoria incerta.

**1. P. capillaceum** Hsch. (Fl. Bras. I. p. 58.); caulis bipollicaris, inferne nudus, apice dense foliosus fuscus, assurgens, ramis patentibus pinnatim divisus; folia caulina conferta patentia subcordato-lanceolata longissime acuminata serrulata concava amoene viridia, nervo viridi ad medium evanido, cellulis anguste linearibus; perich. minora serrata, ext. ovata acuminata, int. latissima vaginata, in acumen brevius angustata; theca in ped. brevi curvato tortili inferne purpurascente minuta oblonga laevis brunnea, sicca ore constricta, operc. hemisphaerico-conico oblique rostellato; perist. d. ext. lanceolato-subulati trabeculati rufescentes, apicem versus flavescentes, int. ciliiformes, basi liberi, articulati flavescentes. †.

*Patria.* Brasilia, ad radices arborum prope Sebastianopolin: Beyrich Novembri legit.

Calyptra ignota.

**2. P. ambiguum** Hsch. (Fl. Bras. I. p. 59.); caulis filiformis vage ramosus, elongatus flaccidissimus remotissime foliosus, ramis simplicibus flaccidis lutescentibus ni-

tidis apice gemmaceo-foliosis; folia distantia, e basi angustiore brevi, ad alas utrinque parum impressas cellulis alaribus laxius et pellucidius reticulatas coarctata caviusculâ late cordato-ovata, acumine longo semel torto terminata, margine erecto ubique denticulato, nervo tenuissimo ante apicem evanido, cellulis angustissime linearibus.

*Patria.* Brasilia australior: Sellow.

*Hypno pruelongo* haud dissimile, et forte *Pilotrichis* alienum.

**3. N. cordata** Hook. (in Wallich. Catal. No. 7623.); caulis secundarius pendulus pinnatus vagans, pinnis brevibus involutis apice in flagella tenerrima remote et minutissime foliosa productis tenellis, pallide viridibus, rigidis; folia remota patentia, e basi angusta brevissima utrinque ad alas infimas parum impressa subcordatâ late rotundate ovato-acuminata, concava, nervo tenui ante apicem evanido, margine basi sola revoluta, e medio ad apicem usque serrata, cellulis brevibus oblongo-linearibus pellucidis, alaribus ad alas subventricose impressas vix ullis pellucidioribus parvis; theca in ped. brevi sub-inclinata ovata parva.

Harvey c. ic. in Ic. Pl. Rar. Hook. t. 22; cum descr. in Lond. Journ. of bot. 1840. p. 15.

*Patria.* Nepal: Wallich.

Calyptram et fructum non vidimus; auctor quoque neglexit.

Sectio IV. **Cyrtopus** Brid. II. p. 235. — Plantae pleurocarpicae ascendentes robustissimae densifoliae plerumque parce dichotome varius pinnatim divisae; folia scariosa plerumque plicata ovato-acuminata incrassate elliptice v. elongate areolata. Theca exserta et immersa.

*Leucodonti* v. *Spiridenti* generis *Neckerae* sectio analoga.

a. *Folia binervia.*

**20. P. plicatum** C. Müll.; *dioicum*; caulis primarius repens, ramis elongatis densissime foliosis turgidis par-



cissime dichotomis flexuosis pallide viridibus *magis compressis*; folia caulina patentia octofaria late ovato-oblonga, *subito in acumen subundulatum et tenuiusculum remote dentatum subpiliforme producta*, superne serrata, inferne denticulata, *valde longitudinaliter plicata, plicis profundis irregularibus*, nervis binis indistinctis brevibus, cellulis elongatis *pachydermibus incrassatis scariosis, basi badiis*; perichaetia emersa, angusta, foliis latissime convolutacea, *apice rotundata et subito in cuspidem longiorem denticulatam flexuosam producta*, haud plicata, *apice subrecurva*; theca immersa parvula ovata, exannulata, operc. brevi conico curvulo, calyptra laevi badia; perist. longe infra orificium oriundi breviter emersi d. externi lanceolato-acuminati, linea longitudinali *fissiles*, densius trabeculati, badii, int. vix breviores ciliiformes remote articulati pallidi.

*Endotrichum densum* Dz. et Molkb. Ann. sc. nat. 1844. p. 303 et Musc. Archip. Ind. Fasc. I. t. 1. — *Garovaglia plicata* Endl. Gen. Pl. p. 57. No. 590. — *Neckera plicata* Schw. Suppl. III. II. 1. t. 268. — *Esenbeckia plicata* Nees ab Es. in litt. ad Bridel.

*Patria.* Java, ad arborum truncos, in altioribus locis montis Gédé: Blume, Zippelius. Sumatra.

*P. eleganti* proximum, notis tamen cursive impressis optime distinctum.

**21. P. elegans** C. Müll.; *dioicum*; *P. plicato* habitu simillimum, sed folia caulina e basi angusta brevissima late ovato-oblonga, *sensim in acumen flexuosum haud undulatum longius producta, grosse et densius serrata, laeviter plicata*, nervis binis latis brevibus, cellulis *leptodermibus laxiusculis pellucide viridibus mollibus*; perich. ovato-lanceolata, *in acumen subulatum subserrulatum sensim attenuata erecta, minora*; theca emersa ovato-cylindrica; perist. d. ext. lanceolato-acuminati basi latiores, linea longitudinali *haud secedente exarati*.

*Garovaglia elegans* Hmp. in litt. — *Endotrichum elegans* Dz. et Molkb. Ann. sc. nat. 1844. p. 303. — Musc. Archip. Ind. Fasc. I. tab. 2.

*Patria.* Java, ad arborum truncos, in altioribus locis m. Gédé: Zippelius. Sumatra.

b. *Folia uninervia.*

**22. P. densum** C. Müll.; *dioicum*; caulis primarius longissime repens nigrescens tenuis nudus; secundarii erecti elongati densissime foliosi robustissimi, in ramos inaequales breves v. elongatos dichotome divisi, interdum subpinnati, lutescentes, rigidi; folia caulina erecto-imbri-cata, humore maxime patula, robusta, scariosa, fragilia, e basi ovata late et longe lanceolato-acuminata, maxime plicata, margine convexo vix revoluta, supra basin grosse dentata, nervo canaliculato subtenui hic illic ferrugineo subexcurrente, cellulis minutis rotundatis luteis incrassatis, inferne oblongis, basi fuscis, alaribus permultis minutissime rotundis pallidioribus polygonatis; perichaetia immersa parvula, foliis adpressis multo minoribus late ovatis breviter acuminatis vaginantibus, laxiuscule lineari-reticulatis, crenulatis; theca vix exserta turgide ovata fusca firma late annulata, operc. conico-acuminato acuto; perist. d. ext. robusti elati late lanceolati obtusati, ad latera sinuato-articulati, laevissime trabeculati, linea longitudinali obsoletissima, albidi maxime rugulosi, infima basi laeves; int. simillimi, ad latera maxime runcinato-dentati, dentibus apice perfecte cancellato-conflatis, inferne minus confluentibus.

*Neckera densa* Wils. Lond. Journ. of bot. 1847. p. 292. t. 11. — *Prionodon densus* C. Müll. Bot. Zeit. 1844. p. 129. t. 1. sub nom. false incripto *P. Ehrenbergii*. — *Neckera crassa* Hsch. Fl. Bras. I. p. 56 et in Musc. Depp. et Schied. — *Hypnum densum* Sw. Prodr. Fl. Ind. Occ. p. 141. et in Hdw. Sp. Musc. p. 282. t. 74!

*Patria.* Jamaica australis in montibus coeruleis, ad radices arborum: Swartz. Mexico, ad Xalapa: Depp e et Schiede. No. 1085; in locis non designatis fertile primus legit C. Ehrenberg. Venezuela, ad Tovar, alt. 5500 pedum: Moritz. E Brasilia speciem simillimam sed sterilem misit Sellow. An species synonyma sit, latet.

Species maxime memorabilis, cujus peristomium neceroideum et fontinaloideum *Fontinaloideas* auct. cum *Necceris* et *Pilotrichis* intime conjungit. Calyptra, nobis non visa, ex analogo *Pilotr.*: *luteo-virente* mitraeformis erit. Pl. mascula longior flaccidior. A *P. elongato* foliis descriptis jam primo momento differt.

**23. P. luteo-virens** C. Müll.; *dioicum?* caulis laxo cespitosus erectus *subbipinnatus*, 10-uncialis, pallide lutescens, ramis compressis erecto-patentibus densifoliis; folia imbricata erectiuscula, *siccitate crispa*, ovato-lanceolata acuminata, *angustiora*, margine *apicem versus dentato*, inferne recurvo, plicata; perich. dense appressa multo minora, ovato-acuminata brevia, integra; omnia nervo ante apicem evanido; theca vix emersa late ovata, operc. conico-acuminato subrecto; calyptra mitraeformis glabra coriacea rufo-fusca minuta; perist. d. ext. *longissimi* albidii, *siccitate crispatis*, *lineari-lanceolati*, trabeculati, int. aequilongi *tenuis*, *in membrana breviter emersa positi*. †.

*Neckera luteo-virens* Tayl. Lond. Journ. of bot. 1846. p. 59. — Wils. c. ic. l. c. p. 452. t. 16. N.

*Patria.* Monte Pichincha Andium Quitensium: W. Jameson 1845.

A *P. denso* vestigiis cursive impressis primo conspectu distinctum.

**24. P. elongatum** C. Müll.; caulis elongatus *latissimus* densissime foliosus robustissimus, ramis elongatis similibus apice subhomomallis parce divisus, lutescens; folia caulina e basi *latissime ovata brevissima lanceolata*, *brevia*, *obtusiuscula*, *nervo excedente longe stricte et subdenticulate pilifera*, *siccitate valde humore vix plicata*, supra basin usque ad apicem *eroso-denticulata*, *haud fragilia*, margine basi revoluta et e cellulis alaribus *laxissime quadratis teneris pellucidis fuscescentibus majusculis composito*, cellulis caeteris *angustissime lineari-*  
*bus*, tenerrime papillosis.

*Prionodon sciuroides* Hmp. in litt. — *Hypnum elongatum* Hook. et Wils. Lond. Journ. of bot. 1844. p. 551.

*Patria.* Insulae antarcticae Aucklandi et Campbelli:  
J. D. Hooker.

Sp. pulcherrima, ex habitu *P. denso* intima, notis autem illustratis facillime discernibilis.

**25. P. setosum** C. Müll.; *dioicum*; caulis primarius repens, secundarius erectus subsimplicissimus v. subpin-  
natim ramosus, flexuosus, sordide lutescens; folia caulina  
dense imbricata, *humore horride patentia, longiuscule  
ovata, sensim in acumen elongatum, nervo valido exce-  
dente percursum, longe setoso-cuspidatum remote denta-  
tum producta*, margine ubique erecto, cellulis apice ro-  
tundis, basi ad medium oblongis, alaribus utrinque rotun-  
datis, omnibus maxime incrassatis; perich. dense appres-  
sa, e basi vaginanti-oblonga, inferne longe et laxe reti-  
culatâ acuminata, nervo excedente setacea subinteger-  
rima; theca in ped. perbrevis rubro laevi oblongo-ovata  
recta *exannulata*, operc. conico-acuminato curvulo; pe-  
rist. d. ext. *latiuscule lanceolato-acuminati longi dense  
sulcate trabeculati laevissimi lutescentes*, linea longitudi-  
nali vix notati, int. *angustissimi aequilongi tenerrime  
membranacei albi*, in membrana breviter exserta positi,  
carinati, *solidi*.

*Neckera (Cyrtopus) setosa* Brid. II, p. 235. — *N. setosa* Hook.  
Musc. Exot. t. 7. — *Anictangium setosum* Hdw. Sp. Musc. p. 43.  
t. 5. f. 4—6.

*Patria.* Ex insulis Australibus, forsan a Banks  
collectum, primus habuit Hedwig. In sinu Dusky-Bay  
Novae Seelandiae: Menzies 1791.

Sp. notis laudatis a *P. denso* affini distinctissima.

**26. P. Trachypus** C. Müll.; *dioicum*; caulis prima-  
rius repens, secundarius ascendens simplex v. parce di-  
visus v. ramulis distichis pinnatus robustus densifolius  
*atrofuscus, superne flavescens*; folia caulina densissime  
imbricata, *humore patentissima*, e basi semiamplexicauli  
cordata, ad alas subauriculatas decurrentes inflexa erectâ

subreflexe elongate lanceolato-acuminata, margine subundulato erecto ubique eroso-denticulato, carinato-concava, plicata, nervo ad medium evanido concolori; perich. teneriora, nervo tenuiori, obscuro concolori, externa ovato-acuminata, interna in acumen tenue longissimum attenuata undulata integerrima; theca in ped. longiuscule exserto apice in collum incrassato ubique ciliate scabro erecta, elliptica microstoma fusca, punctis nigris adspersa, operc. conico-subulato recto pallidiori, calyptra conica uti vaginula longe villosissima; perist. d. ext. molles crassi spongiosi lanceolato-lineares, dense obsolete trabeculati, subpertusi, albidi, internum: membrana triplo brevior tenera albida truncata. †.

*Trachypus bicolor* Reinw. et Hsch. in Nov. Act. Acad. Caes. Leop. XIV. II. Suppl. p. 708. t. 39. — Schw. Suppl. IV. t. 318.

*Patria.* Java et in Malabaria: Reinwardt.

*Bartramiis* robustis Hornschuch, *Hypno loreo* et *Leucodonti Canariensi* Schwägrichen comparavere. E characteribus cursive impressis facillime distinguendum.

c. *Folia enervia.*

**27. P. solitarium** C. Müll.; caulis secundarius elongatus erectus *gracilis patentifolius* simplex; folia e basi cordato-ovata lata longa subito fere acuminata enervia caviuscula, acumine parum torto vix denticulato, margine ubique erecto, cellulis oblongis densissimis incrassatis, basi fuscis, alaribus vix ullis.

*Hypnum solitarium* Brid. Mant. Musc. p. 184. et Br. univ. II. p. 540.

*Patria.* In arboribus non muscosis insulae Bourbonis: Bory St. Vincent.

E statura *P. denso* affine, sed multo gracilius et characteribus explicatis diversum.

Sectio V. **Cryphaea** Brid. Mant. Musc. p. 139. — Plantae pleurocarpicae v. cladocarpicae, rupicolae v. dendrophilae, dichotome v. pinnatim ramosae, subpendulae. Caulis *teres*. Folia cochleariformi-concava v. carinata ovata v. lanceolata, *rotundate areolata submollia, nunquam scariosa*, basi excisa. Theca immersa.

*Harrisonias, Pterigynandra et Cryphaeadelphos* generis *Neckerae* aemulantes plantae.

Subsectio I. **Dichotomaria.** Caulis *dichotome divisus*; thecae in ramulis brevissimis v. longioribus terminales paucae, gymnostomae globosae.

*Harrisonias* ex habitu in memoriam redigentes.

**28. P. ciliatum** C. Müll.; *monoicum*; laxe cespitosum incanum viride v. lutescens; rami erecti teretes parce divisi subclavati, ramulis breviusculis; folia caulina dense appressa, apicibus patulis, humore patentia, e basi angustiore ovato-acuminata, lutescentia, acumine lato longiusculo canaliculato diaphano denticulato, enervia, dorso praesertim apice hyaline papillosa, margine *ubique perfecte revoluta*, cellulis *grosse ellipticis, ad latera vix crenulatis, chlorophyllosis* mollibus, basis medio longioribus; perichaetia patula turgida, foliis longioribus, margine erecto apice longe albide maxime flexuose ciliato, cellulis basi elongatis *laxiusculis*; theca brevissime pedunculata immersa e collo *breviter pyriformi* turgide globosa macrostoma, aurantiaca exannulata gymnostoma, operc. planiusculo submammillato, calyptra elongata angusta campanulata, stylo sic dicto archegonii ornata, glabra.

*Hedwigia ciliata* Ehrh. Hann. Magaz. 1781. No. 69. p. 109. — Hedw. Musc. Frond. I. p. 107. tab. 40. — Br. Europ. Fasc. 29 — 30. *Hedwigiaceae*, c. tab. — *H. apocarpa* Leyss. Fl. Hal. n. 1049. — *H. diaphana* P. B. Prodr. p. 60. — *H. integrifolia* P. B. l. c. — *H. anodon* Ehrh. Beiträge 1787. I. p. 187. — *Schistidium ciliatum* Brid. Mant. Musc. p. 21. — Br. univ. I. p. 116. — *Gymnostomum Hedwigia* Web. et Mohr. Bot. Taschenb. p. 78. — *G. ciliatum* Roth. Fl. Germ. III. I. p. 129. — *Anoetangium ciliatum* Brid. Sp. Musc. I. p. 22. — *Bryum ciliatum* Dicks. Fasc. IV. Crypt. p. 6. — *Br. sphagnoides* Jacq. Coll. II. p. 222. — *Br. apocarpum* β. Linn. Sp. Pl. p. 1579. — *Fontinalis albicans* Web. Spic. Fl. Gött. p. 38. — *Sphagnum nodosum hirsutiae incanum*. Dill. Musc. p. 246. t. 32. f. 5.

β. *secundum*; caulis cespites latos altos sistens, flexuosus, tenuiusculus, sordide luteus, apice curvatus, perichaetiis distincte lateralibus, foliis secundis submuticis. Br. Europ. l. c. t. 2. sub nom. *Hedwigia ciliata* β. *secunda*.

*γ. striatum*; foliis longitudinaliter plicatis. *Anoectangium striatum* Wils. in Hook. Engl. Fl. p. 12.

*Patria.* Per totam Europam et Americam septentrionem in reg. montosa ad saxa sicciora. Var. *β.* locis umbrosis. Var. *γ.* in Britannia et Hibernia. — *Vere.*

Br. Europ. calyptram quoque pilosam descripsit et delineavit; nos ipsi haud observavimus.

**29. P. nivale** C. Müll.; *monoicum*; *P. ciliato* simillimum, amoene incano-lutescens, sed foliorum cellulae dolioliformes minores ad latera maxime crenulatae valde obscurae et scaberrimae, basi longiores distincte papillo-sae; perich. basi multo laxius et tenerius reticulata; theca pachydermis castanea, apophysii polytrichoido-disciformi-coarctata praedita.

*Schistidium ciliatum* Hmp. Linn. XX. p. 70. — *Anoectangium ciliatum* C. Müll. Linn. XIX. p. 199.

*Patria.* Venezuela, prov. Merida, in montibus nivosis: Moritz. No. 174.

Distinctissima species! Calyptra *P. ciliati*, glabra.

**30. P. subrevolutum** C. Müll.; *monoicum*; *P. ciliato* simillimum, sed folia basi tantum margine revoluta, cellulis dolioliformibus maxime crenulatis et obscuris valde papillosis minoribus, basi parietibus interruptis, punctulatis; perich. basi laxius reticulata; theca collo angustiore longiore praedita minor, operculo conico-cupulato.

*Patria.* Mexico, *Harrisoniae secundae* associatum ad saxa pr. Malpays de la Joya: Schiede. In locis non indicatis ibidem legit C. Ehrenberg.

Calyptra *P. ciliati*, glabra. Distinctissima species!

Subsectio II. **Eucryphaea.** Caulis plus minus longus *distiche pinnatus*. Thecae peristomatae, plus minus acuminatae operculatae, in caule eodem plerumque creberrimae, unilaterales peristomatae ovatae v. oblongae.

*Pterigynandra* aliquot referentes plantae.

1. *Rami fertiles brevissimi.*a. *Folia anguste lanceolata.*

**31. P. tenellum** C. Müll.; *monoicum*; caulis repens, ramis *pusillis teneris* simpliciter subpinnatis, *humore plumose foliosis*; folia caulina humore erecto-patula, *anguste lanceolato-acuminata*, integerrima, profunde carinata, margine basi parum revoluta, *excurrentinervia*, pallida, minute rotundato-areolata sublaevissima; perich. latius lanceolata, intima ex apice emarginato dentato in cuspidem strictam longiusculam, nervo percursam, denticulatam producta, tenera; theca immersa *tenella urceolata minuta, leptodermis, basi impressa*, operc. conico brevi recto, calyptra *scabra*; perist. infra orificium oriundi d. ext. *brevissime angustissime lanceolati*, linea media notati, indistincte articulati, *pallidissimi laevissimi*, int. *aquilongi capillares albidii laevissimi*.

*Neckera tenella* Schw. Suppl. II. II. 2. t. 198. — *Cryphaea tenella* Hsch. in Sieber. Musc. Nov. Holl.

*Patria.* Nova Hollandia: Sieber.

Exiguitate et teneritate partium omnium atque notis cursive impressis primo visu distinctissimum.

**32. P. exiguum** C. Müll.; *monoicum*; caulis pusillus *robustior densius foliosus*, folia *latius lanceolata, apice dentata*; perist. d. ext. *latius lanceolati solidi rugulosi*, int. *rugulosi*; calyptra *glabra*.

*Patria.* Prom. b. spei, Cap. Philippstown: Hb. Gottschean.

A *P. tenello* proximo notis cursive impressis distat.

**33. P. consimile** C. Müll.; *monoicum*; caulis *tenuissimus*, ramis *tenuissimis* brevibus saepe fasciculatim divisus subpinnatus, *humilis*; folia caulina appressa *vix conspicua, humore parum patula, minuta, anguste lanceolata, breviter stricte acuminata*, profunde carinato-concava, margine inferne paulisper revoluta, integerrimo, nervo rufescente tenui subexcurrente, cellulis minutis opacis sublaevibus; perich. pauca *thecae arcte appressa*,



*latissime vaginantia, apice profundissime in partes duas aliformes subrotundatas excisa, nervo tenui in cuspidem brevem segmenta vix superantem excedente, tenerrima pellucida; theca emersa, anguste cylindraceo-oblonga leptodermis aequalis, late annulata, operc. eximie conico; perist. d. ext. elongati anguste lanceolato-subulati, tenues, ubique rugulosi lutei, int. angustissime subulati aequilongi similes rugulosi.*

*Cryphaea consimilis* Mont. Ann. d. sc. nat. 1845. p. 100.

*Patria.* In cortice arborum Chiles meridionalis: C. Gay.

Omnium congenerum sp. tenerrima et vestigiis explicatis distinctissima, pulchella. Flores masc. minutissimi permulti.

**34. P. Schiedeanum** C. Müll.; *monoicum*; caulis *elongatus* tenerrimus valde ramosus, *parum robustior*; folia *parum robustiora*, apice *parce minute dentata*, nervo pallido *ante apicem evanido*; perich. thecam arcte includentia et *superantia*, late convolutacea *sensim acuminata*, apice *vix v. parum emarginata*, longe *stricte cuspidata*, tenerrima pellucida; theca *immersa*, breviter conico-operculata, calyptra tenerrima laevis.

*Cryphaea filiformis* Hsch. in Musc. Mexic. Depp. et Schied.

*Patria.* Mexico, Xalapa: Depp. et Schiede.

Ob vestigia indicata a *P. consimili* proximo et similimo certe differt.

b. *Folia ovato-acuminata.*

a. *Folia integra.*

**35. P. heteromallum** P. B. (Prodr. p. 37.); *monoicum*; cespites laxae cohaerentes, ramis subpendulis humilibus tenuiusculis, *in ramulos similes plerumque tenero-pinnatos divisus, viridibus, ditissime fructificantibus*; folia caulina appressa, humore subhorizontalia, e basi *angustata decurrente anguste ovato-lanceolata*, carinata, *integerrima*, margine *inferne revoluta*, nervo ante apicem *evanido*, cellulis amoene viridibus *vix papillosis rotunda-*

tis; perich. late vaginantia *apice obtuse acuminata*, nervo valido *in cuspidem laevem brevem producto pungentia*, ubique elongate pellucide reticulata; theca immersa oblonga pallida aequalis, late annulata, operc. conico acuminato recto v. parum incurvo, calyptra minuta fusca *scabriuscula*; perist. d. ext. longi lanceolato-subulati angusti, linea media distincta notati, albidi, dense trabeculati, superne rugulosi, int. aequilongi capillares subfissiles rugulosi albi.

*Cryphaea heteromalla* Brid. II. p. 250. — *Daltonia heteromalla* Hook. et Tayl. Musc. Brit. p. 81. t. 22. — *Neckera heteromalla* Hdw. Musc. Fr. III. p. 38. t. 15. — *Hypnum heteromallum* Gmel. Syst. Nat. p. 1340. — *H. polycephalum* Neck. Meth. Musc. p. 190. — *Fontinalis secunda* L. jun. Meth. Musc. p. 368. — *Grimmia arborea* Schrank. Baiers. Fl. II. p. 445. — *Sphagnum arboreum* L. Sp. Pl. p. 1570. — *Sphagnum heteromallum*, polycephalum. Dill. Musc. p. 248. t. 32. f. 6. — *Phascum repens* With. Bot. Arrangem. p. 785.

*β. aquatile*; robustius, foliis caulinis late ovatis obtusiuscule acuminatis, perich. pachydermibus regulariter sensim acuminatis pungentibus, ob papillas distinctiores margine crenulatis. *Cryphaea v. Daltonia Lamiana* Mont. Ann. d. sc. nat. ser. II. T. VI. p. 327. t. 18.

*γ. filiforme*; caulis multo tenuior, squarrulosifolius, thecis minoribus. *Cryphaea filiformis* Sulliv. Musc. Allegh. No. 81. — *Cr. glomerata* Schimp. in litteris! — *Daltonia heteromalla* var. Hook. et Wils. in Drumm. Musc. Amer. n. 99. — *Sphagnum vermiculare repens*, capsulis intra foliolorum squamosorum alas minimis. Dill. Musc. p. 550. t. 85. f. 16! *Cryphaea vermicularis* Brid. II. p. 253.

*Patria.* In Angliae et Hiberniae truncis arborum vulgare. Ad litora Belgii et Germaniae septentrionalis, in arboribus campestribus raro et in Jutlandia Danica. In Germania australi prope Bipontum, populos amans. E Gallia per Pyrenaeos humiliores usque ad Lusitaniam, ubi Brotero legit. In Italia frequentius; in regione Oleae per totum Littorale usque ad Udine orae maris Adriatici. Var. *β.* in rivulis Galliae ad Lemovicem (Limoges) soc. *Grimmiae rivularis* et *Cinclid. fontinaloidis*. Var. *γ.* in

America septentrionali ut videtur haud rarum. *Julio et Augusto.*

A *P. filiformi* proximo notis laudatis longe recedit.

**36. P. nervosum** C. Müll.; *monoicum?* *P. heteromallo* simillimum, sed folia ovato-acuminata nervo *excurrente*, perich. longiora *lanceolata*, dorso *papillosa*, perist. d. ext. *linea media carentes*, interni *breviores*, *anulo vix ullo obscuro simplici* et calyptra conica *latere fissa*. †.

*Daltonia nervosa* Hook. et Wils. Lond. Journ. of bot. 1842. 2. p. 420. t. 24.

*Patria.* America septentrionalis, in arboribus pr. New-Orleans c. *Pil. heteromallo* associatum: Drummond.

**37. P. filiforme** P. B. (Prodr. p. 83.); *monoicum*; caulis subrepens; divisiones pendulae *remotae discretae* filiformes, *ramulis tantum fertilibus brevissimis ramulosae*, *rigidae*, *ferrugineo-lutescentes*; folia caulina appressa, *humore subito perfecte horizontalia*, e basi *subauriculato-decurrente* ovato-acuminata acuta, subreflexa, margine ob papillas crenulato *ubique erecto*, nervo ante apicem evanido, cellulis grossiuscule rotundatis papillois; perich. late vaginantia, sensim acuminata, plus minus convolutacea, inferne elongate pellucide superne rotundate areolata, nervo basi obsoleto in *cuspidem crassam longam ubique serrulato-scaberrimam* producto; theca immersa ovato-elliptica microstoma, ore valde coarctata, aequalis, breviter conico-operculata, late annulata, calyptra *valde papillosa fusca*; perist. d. ext. anguste lanceolato-subulati valde rugulosi, linea longitudinali carentes, albidi, int. aequilongi *fugacissimi* capillares valde rugulosi *basi irregulariter appendiculati*.

*Daltonia filiformis* Arn. Disp. p. 54. — *Cryphaea filiformis* Brid. II. p. 252. — *Neckera filiformis* Hdw. Musc. Fr. III. p. 41. t. 16. — *Hypnum filiforme* Gmel. Syst. Nat. II. p. 1340. — *Fontinalis filiformis* Sw. Prodr. Fl. Ind. Occ. p. 138.

β. *squarrosulum*; divisiones magis ramosae squarrosulo-foliosae. *Cr. filiformis* C. Müll. Linn. XIX. p. 210. — *Cr.*

*Caripensis* C. Müll. l. c. — *Moritzia Caripensis* Hmp. Linn. XX. p. 82.

*Patria.* Hispaniola, ad ramos arborum: Swartz, Bertero. Mexico: Leibold. Var.  $\beta$ . Venezuela, Caracas et Caripe: Moritz.

**38. P. protensum** C. Müll.; *monoicum*; caulis elongatus ramosus, ramis *remotis protensis recurvatis brevibus* rigidis subpinnatus crassiusculus ferrugineus, superne lutescens; folia caulina *humore erecto-patentia*, siccitate magis appressa, lato-ovata acuminata *integra haud plicata*, concava, margine revoluta, nervo supra medium evanido; perich. lanceolata longissime acuminata, apicem versus vix plicato-undulata, nervo plerumque excurrente cuspidata, lineari-laxiusculo-reticulata pellucida; theca immersa cylindraceo-oblonga basi impresso-plicata, late annulata, operc. conico recto brevi, calyptra parva, basi laciniata, *apice scabra*, omnino obtecto; perist. duplicis d. ext. lanceolato-acuminati *valde rugulosi* albidi, remote articulati, subpertusi, cilia dimidio breviora maxime rugulosa filiformia.

*Cryphaea protensa* Br. et Sch. in Musc. Abyss. et C. Müll. in Linn. XVIII. p. 679.

*Patria.* Abyssinia: W. Schimper.

A *P. patente* notis laudatis facile distinguitur.

$\beta$ . Folia dentata.

**39. P. sphaerocarpum** C. Müll.; *monoicum?* caulis pendulus vage et pinnatim ramosus, ramis apice attenuatis brevibus; folia caulina laxè imbricata, superne cauli appressa apice exstante, ovato-lanceolata *longe acuminata*, *apice tenuissime serrulata*, concava, nervo ad medium evanido, lutescenti-viridia; perich. erecto-patula, intima majora concava suberecta, exteriora longe minora plana integerrima, omnia pallide luteo-viridia; theca immersa lateralis *globosa* fusco-lutescens, late annulata, ore incrassato rubro, operc. conico acuto concolori; perist. albicantis duplicis d. int. filiformes, externis latioribus breviores. †.

*Cryphaea sphaerocarpa* Brid. II. p. 251. — *Neckera sphaerocarpa* Hook. Trans. of Linn. Soc. IX. p. 312. t. 27. f. 1.

*Patria.* Nepal: Buchanan, arboreum.

40. **P. patens** C. Müll.; *monoicum*; caulis longiusculus *crassus rigidus*, ramis *paucis patentissimis rigidis brevibus crassiusculis obtusis* divisus, parce fructificans; folia caulina *squarruloso-erecta*, humore *horizontalia*, e basi *cordata latissime rotundato-ovata*, breviter *acuminata*, acumine *dentata*, grossius *areolata*, concava, nervo ante apicem *evanido*, margine usque ad acumen *revoluto*; perich. *ubique latissime convoluta*, marginibus valde *involutis*, breviter *acuminata enervia* v. subito longiuscule *cuspidata*, nervo e *cuspile ad medium folii descendente*, tenera, *pellucida*; theca immersa *minute ovata microstomabada*, operc. *conico brevi recto*, annulo lato; perist. d. ext. *angustissimi ubique rugulosi* albidi, int. *vix breviores filiformes similes*; calyptra *laevis*.

*Cryphaea patens* Hsch. in Muse. Mexic. Deppean. excl. Syn. *Hypn. patens* Hook.

*Patria.* Mexico: Deppe.

A *P. decurrente* proximo characteribus cursive impressis primo momento differt.

41. **P. intermedium** C. Müll.; *monoicum*; caulis parce ramosus *crassiusculus*, ramis *brevibus rigidis recurvis*; folia caulina *humore erecto-patula*, lato-*ovata* breviter *acuminata integerrima cochleariformia*, margine usque ad acumen *revoluto*, basi *decurrente*, *glabra*, nervo tenui supra medium *evanido*; perich. late et maxime *convoluta*, in acumen longum *glabrum* producta, enervia v. apice solo *nervosa*, *infima basi laxe superne conflata et badio-reticulata*; theca immersa *oblonga aequalis late annulata, majuscula*, breviter *conico-operculata*, calyptra *laevi*; perist. d. ext. *latiuscule lanceolato-subulati*, basi *glabri rufescenti-albidi integri*, apicem versus *rugulosi*, int. *filiformes glabri albi, dimidio breviores*.

*Cryphaea intermedia* C. Müll. Linn. XIX. p. 212.

*Patria.* Mexico: Leibold. Dr. Gottsche comm.

Inter *P. patens* et *protensum* intermedium; a primo notis cursive impressis differt; a secundo theca haud plicata, calyptra glabra, peristomio et caule turgescente primo adspectu distat.

**42. *P. decurrens*** C. Müll.; *monoicum*; caulis elongatus ramosissimus flaccidus, ramis alternis v. oppositis tenuissimis elongatis flexuosis flaccidis attenuatis flagelliformibus remote pinnatus, ferrugineus, superne viridescens, ditissime lateraliter fructificans; folia caulina appressa, humore erecto-patula, e basi longe et angustissime decurrente anguste ovato-acuminata, profunde concava, acumine graciliter latiusculo irregulari dentato, margine usque ad acumen revoluta, nervo ultra medium evanescente, cellulis minute rotundatis; perich. e basi angustiore late convoluta, apicem versus dilatata, longissime flexuose acuminata, nervo nullo v. ex acumine ad medium folii descendente, elongate tenero-reticulata, plus minus plicata, pellucida; theca immersa ovata haud plicata, late annulata, operc. conico brevi recto; perist. d. ext. lanceolato-subulati breviusculi latiusculi, inferne fusciduli glabri, superne rugulosi subpertusi, int. dimidio breviores maxime rugulosi subalbidi fragiles irregulares; calyptra laevis.

*Cryphaea protensa* Schimp. in Hb. Schlechtendaliano. — *Cr. patens* C. Müll. in Linn. XVIII. p. 679 ex parte. — *Cr. patens* Hmp. in Hb. Schlechtend.

*Patria.* Mexico: C. Ehrenberg.

A *P. patente* notis illustratis, a *P. protenso* foliis dentatis jam toto coelo distat.

**43. *P. Jamesoni*** C. Müll.; *monoicum?* caulis decumbens, basi ramosus; rami basi nudi, medio breviter patienti-ramulosi vage pinnati, apice simplices incrassati, pallide virides, elongati, ditissime fructiferi; folia caulina imbricata erecta, late ovata, longius acuminata, acumine minus denticulato, margine reflexo, nervo ante acumen evanido brevioribus; perich. scariosa, longissime acuminato-setacea, enervia, appressa; theca cylindrica

annulata, operc. conico-acuminato inclinato; perist. albidum. †.

*Cryphaea Jamesoni* Tayl. Lond. Journ. of bot. 1848. p. 192.

*Patria.* Andes Quitenses, monte Pichincha, ad arbores, Dec. 1846: W. Jameson.

Ex animadv. auctoris a *P. patente* notis cursive impressis differt.

2. *Rami fertiles elongati.*

44. **P. julaceum** C. Müll.; *monoicum*; caulis ascendens strictus, ramis alternis filiformibus, humore turgescens patentifoliis, *patentibus elongatis fructiferis*; folia dense imbricata, humore subhorizontalia, *lato-ovata acuminata integerrima*, concava, sublaevia, rotundato-areolata, basi excisa et aurantiaca, margine revoluta, apice flexuoso, nervo valido ultra medium evanido, cellulis rotundatis; perich. e basi angusta longe lanceolato-acuminata undulato-plicata, basi pellucide elongate tenero-reticulata, nervo tenui ante apicem evanescente, vel in cuspidem elongatam producta; theca in *ramo elongato terminalis* immersa ovata, omnino plicata, basi impressa, late annulata, operc. conico recto brevi firmo, calyptra campanulata, basi late laciniata, superne scabra omnino obtecto; perist. simplex *longissimum*: dentes longe lanceolato-subulati cupuliformes, humore reflexi, rugulosi, obsolete articulati, superne perforati, albo-lutei.

*Cryphaea Leiboldi* C. Müll. Linn. XVIII. p. 680. — *Grimmia julacea* Hsch. Fl. Bras. p. 7. t. 1. f. 1.

*Patria.* Mexico: Leibold. Brasilia, Serra dos Orgãos super saxa rivorum: Beyrich, Gardner, Minas Geraës: Gardner, in sylvis udis, in vetustis truncis fluctuantibus fluminis Amazonum: Martius.

Ab omnibus congeneribus ramis fertilibus elongatis, caule fructifero ipso et peristomio simplici jam distinctissimum, *P. filiformi* habitu simillimum.

Subsectio III. **Dendropogon** Schimp. Bot. Zeit. 1843. p. 377. — Caulis elongatus pendulus, *ramis alternis toto ambitu dispositis*

*pseudo-pinnatus*. Thecae in ramis elongatis terminales peristomatae ovatae v. oblongae.

*Cryphaeadelpho Dichelymati* generis *Neckerae* subsectio analoga.

a. *Rami fertiles abbreviati.*

45. **P. helictophyllum** C. Müll.; *dioicum*; caulis longissimus pendulus filiformis flexuosus *flaccidissimus sordide lutescens*, ramis *longiusculis attenuatis flaccidis* patentibus remotis alternis plerumque simplicissimis et rarius fertilibus, indistincte circa caulem dispositis et igitur subdistiche pinnatus; folia caulina *laxe conferta, humore plumulose disposita, e basi utrinque auriculis parvis praedita lanceolato-acuminata, longitudinaliter biplacata, siccitate et humore cochleatim convoluta seu contorta*, subintegerrima, minute elliptico-areolata, tenuissime papillosa, opaca, nervo unico *tenerrimo obsoleto*; perich. *late lanceolato-acuminata stricta*, valde exserta, pallida, longitudinaliter plicata, elongate dense reticulata, *distinctius nervosa*; theca immersa oblonga leptodermis, operculo convexo *oblique mucronato*, calyptra *pilosa*; perist. anguste lanceolato-subulati, rugulosi, albidi, linea media exarati, int. similes filiformes *aequilongi*.

*Cryphaea helictophylla* Mont. in Voy. au pôle Sud. Crypt. p. 322.

*Patria.* Taïti, in arboribus: Jacquinet.

46. **P. imponderosum** C. Müll.; caulis pendulus gracillimus flexuosus longissimus subpinnatus, ramis *perfecte patentibus* subdistantibus brevibus subcomplanatis acuminatis; folia laxe imbricata erecto-patentia, *lanceolato-acuminata, mediotenus uninervia, basi margine recurva serrulata, siccitate striata.* †.

*Leskea imponderosa* Tayl. Lond. Journ. of bot. 1846. p. 62. — *Cryphaea helictophylla* Wils. l. c. p. 453.

*Patria.* In sylvis Andium Quitensium prope Esmeraldos: W. Jameson.

A *P. helictophyllo* satis differre videtur.

47. **P. tenuissimum** C. Müll.; *dioicum?* caulis pendulus elongatus *capillaris*, ramis patentibus filiformibus



subsimplificibus, *elongatis capillaribus*; folia *remotissima, ovato-acuminata serrulata*, seminervia; perichaetia *valde conspicua*. †.

*Cryphaea tenuissima* Hook. et Wils. Lond. Journ. of bot. 1846. p. 453. t. 15. E!

*Patria.* In sylvis Andium Quitensium: W. Jameson.

E theca vetusta peristomium neckeroideum. Ex analogia huc relatum.

48. **P. fuscescens** Brid. (II. p. 264.); *monoicum?* caulis pendulus longissimus, pluries vage divisus flexuosus; divisiones sordide ferrugineo-virides tenues, ramulis brevibus reflexis subsimplificibus, subrigidis; folia caulina erecto-imbricata, humore erecto-patentia, *anguste lanceolato-acuminata*, vix concava, *biplicata*, *marginem ad apicem serrata*, *nervo ante medium evanido*; perich. caulinis longiora *angustiora flavescencia enervia*; theca immersa oblonga fusca, operc. conico acuminato recto, calyptra parva mitraeformis pilosa; perist. d. ext. *angustissimi longiusculi pallidi*, int. capillares *aequilongi*.

*Daltonia fuscescens* Arn. Disp. p. 55. — *Neckera fuscescens* Hook. Musc. Exot. t. 157.

*Patria.* Nepal, in arboribus: D. Gardner.

*P. Gorveano* haud dissimile, sed ramis fertilibus brevissimis primo momento distinctum.

b. *Rami fertiles elongati.*

49. **P. Gorveanum** C. Müll.; *monoicum*; caulis longissimus pendulus tenuis flexuosus *rigidus sordide ferrugineo-viridis*, ramis brevibus, *distincte toto ambitu dispositis*, *patentibus rigidis tenuibus obtusis*, terminaliter fructiferis; folia caulina laxa conferta, *e basi angustiore latiuscule ovato-lanceolata*, *firma, brevia*, vix crenulata, concava, *marginem inferne subrevoluta*, *nervo valido ante apicem evanido*, cellulis ellipticis fuscidulis subdiaphanis et sublaevibus, alaribus distinctioribus planis multis quadratis; perich. late lanceolato-acuminata, longiora, firma,

pallida, elongate dense reticulata, concava, haud plicata, nervo *in cuspidem latam strictam tenuiter serrulatam producto pungentia*; theca immersa oblonga subplicata leptodermis annulata, operc. conico acuminato recto; perist. d. ext. longe anguste lanceolati tenuiter subulati pallidi subrugulosi, linea media laevi exarati, int. capillares acquilongi subnodosi rugulosi albid.

*Cryphaea Gorveana* Mont. in Ann. d. sc. nat. 1845. p. 99 et in Gay: Hist. de Chile. Bot. Crypt. t. 5. f. 3.

*Patria.* In arboribus Chiles: C. Gay.

Flores masc. hujusce speciei distinctissimae infra femineos permulti.

50. **P. rufescens** C. Müll.; *monoicum*; caulis pedalis pendulus *tenuissimus amoene aureo-rufescens rigidissimus* geniculato-flexuosus, valde divisus; divisiones *longissimae tenuissimae, rigidissimae*, ramulis *tenuissimis* breviusculis horizontalibus v. reflexis *rigidissimis* alternis remotis ubique insertis veluti pinnatis, *fructibus terminalibus immersis turgidis apice turgide comosis et pulcherrime aureis*; folia caulina appressa, humore *eleganter plumulose patula*, e basi longe anguste decurrente *anguste lanceolato-acuminata stricta*, concava, integerrima, aureo-fusca, nervo subvalido intensius colorato in cuspidem rigidam producto pungentia, cellulis ellipticis conflatis aureis, alaribus marginis basi late revoluti minute incrassate quadratis; perich. e basi angustiore *late squamaeformi-ovata, longissime fusco-pilifera*, caviuscula sublaxius reticulata, nervo tenui subobsoleto excurrente; theca *perfecte inclusa parva globoso-ovata*, operc. conico acuminato recto, calyptra parva laevi, annulo simplici operculo adhaerente; perist. d. ext. breves leptodermes laeves pallide lutei lanceolati, linea media notati, int. multo breviores crenulato-rugulosi tenues.

*Cryphaea (Dendropogon) rufescens* C. Müll. Linn. XVIII. p. 682. — *Dendropogon rufescens* Schimp. Bot. Zeit. 1843. p. 377. tab. 1.

*Patria.* Mexico, pr. Oaxaca: Karwinski, in locis non designatis copiosissime legit C. Ehrenberg.

Species ob vestigia laudata distinctissima et pulcherrima. Flos masc. terminalis minutissimus, fol. enervibus.

Sectio VI. **Eupilótrichum.** Caulis *dendroideo-pinnatus pendulus frondiformis.* Folia incrassate rotundato-areolata, cochleariformia. Nervi dorso *calloso-prominentes et spinaeformes e dorso folii excedentes bini.* Inflorescentia dioica. Theca immersa v. exserta.

Callicosta C. Müll. Linn. XXI. p. 187.

*Hookerian* callose binerves sectio referens.

a. *Theca immersa.*

51. **P. rugifolium** C. Müll.; rami crassiusculi flavide virides; folia caulina latiuscule oblonga, ante apicem breviter acuminatum plerumque paulisper constricta, varie concava *valde rugulosa*, margine tenuissime reflexo, apice *tenuissime denticulato*, nervis e basi jam divergentibus tenuibus elongatis, spinae forma distinctae abruptis, superne scaberrimis, cellulis minutis pallidis firmis ob papillas scabris; perich. exserta longe lanceolato-acuminata plicata complicate concava scaberrima *grosse denticulata* obsoletinervia, superne margine valde reflexa, cellulis linearibus longioribus; omnia basi crocea; theca immersa brevissime pedunculata, ovalis tenella ore constricta pallide fusca, operculo conico subulato recto acuto croceo, calyptra minuta operculum solum detegente, pilis rectis copiosis robustis articulatis hirta; perist. ext. angustum obscure pallidum et articulatum carnosum, interna cilia tenuia subrugulosa solida.

*Neckera hypnoides* Hook. in schedulis.

*Patria.* Insula Owyhee Australiae: Hook. Hb.

A *P. hypnoide* notis cursive impressis facile distinguitur.

52. **P. hypnoides** P. B. (Prodr. p. 83.); *P. rugifolio* simillimum, sed differt: nervis binis *infima basi in unicum coalitis et supra basin tantum divergentibus, veluti furcam musicorum formantibus, foliis haud rugulosis et perichaetialibus haud denticulatis.* †.

Brid. II. p. 260. — *Daltonia hypnoides* Arn. Disp. p. 54. — *Callicosta hypnoides* C. Müll. Linn. XXI. p. 188. — *Neckera hypnoides* Hedw. Musc. Frond. III. p. 43. t. 17. — *Fontinalis hypnoides* Swartz Prodr. Fl. Ind. Occ. p. 138.

*Patria.* Jamaica, in truncis arborum montium altissimorum: Swartz.

b. *Theca exserta.*

**53. P. compositum** P. B. (Prodr. p. 82.); folia caulina *cochleariformi-ovata* subacuminata, margine vix v. paulisper reflexo, nervis *crassis flavidis* subglabris in spinam distinctissimam productis, *ante apicem summum abruptis*, cellulis punctiformi-rotundatis; perich. lanceolato-acuminata acuta obsoletinervia; theca in ped. breviter exserto turgide ovalis fusca, operc. conico subulato curviusculo pallidiori; perist. ext. dentes latissimi pallidi valde trabeculati magni, interni lati membranacei carinati imperforati; calyptra pilosa.

Brid. II. p. 262. — *Daltonia composita* Arn. Disp. p. 54. — *Callicosta composita* C. Müll. Linn. XXI. p. 188. — *Orthotrichum compositum* Brid. Musc. Rec. II. II. p. 32. t. 1. f. 1. — *Neckera composita* Hedw. Sp. Musc. p. 203. t. 46. — *Hypnum compositum* Sw. Prodr. Fl. Ind. Occ. p. 141.

*Patria.* Jamaica interior, supra truncos arborum sylvestrium: Swartz. Venezuela, prov. Caracas: Moritz.

*P. bipinnato* simillimum.

**54. P. bipinnatum** Brid. (II. p. 263.); *P. composito* simillimum, sed differt: foliis *minoribus tenuioribus minutius areolatis*, magis acuminatis, basi paulisper constrictis, nervis *tenuibus pallidis*; theca *minute obovalis tenella* et peristomio *angustiori*.

*Callicosta bipinnata* C. Müll. Linn. XXI. p. 189. — *Daltonia bipinnata* Arn. Disp. p. 55. — *Neckera bipinnata* Schw. Suppl. I, II. p. 456. t. 83.

*β. filinerve*; nervi dorso filis longis fasciculatis articulatis obtecti.

*γ. evanescens*; folia distinctius scabra, margine ob papillas denticulata, nervis magis attenuatis vix forma spinæ abruptis. *C. evanescens* C. Müll. Linn. XXI. p. 189.

*Patria.* Surinam, in sylvis humidis: Kegel, Focke. Guiana Gallica: Richard primus legit. Trinidad Antillarum, ubi in locis multis copiosissime legit Crüger. Guadeloupe: Bertero. Var. *β.* in insula Trinidad, ubi in monte Tocuche sterilem legit Crüger 1847. 14. Mart. Var. *γ.* in Surinam et Trinidad.

**55. P. affine** Brid. (II. p. 261.); *P. composito* proximum, sed differt: foliis *rigidis densius imbricatis, e basi late ovata longiuscule acuminatis, robustius et elliptice areolatis*, nervis crassis flavidis longioribus, perich. longe acuminatis obsoletinervibus, theca *cylindracea tenella, peristomio angusto.*

*Callicosta affinis* C. Müll. Linn. XXI. p. 188. — *Daltonia affinis* Arn. Disp. p. 54. — *Neckera affinis* Hook. Musc. Exot. tab. 122. — *N. composita* var. *β.* Schw. Sp. Musc. I. II. p. 155.

*Patria.* Insula St. Vincentii: Menzies Hb.; Domingo: Bertero.

Sectio VII. **Pteróbryum** Hsch. Fl. Bras. I. p. 50. — Caulis primarius repens, secundarius erectus *inferne nudus, superne dendroideo-pinnatus, densifolius; folia ubique inserta, cymbiformi-concava*, longitudinaliter plicata, v. laevia, 1—2 nervia. *Nervi tenues haud callosi.* Theca immersa.

*Climacium Neckerae* generis ex habitu referentia.

a. *Folia uninervia.*

**56. P. Hornschuchii** C. Müll.; *dioicum*; caulis primarius repens, secundarius erectus, *stipite elato nudo nigrescente*, superne dendroideo-pinnatus, ramis breviusculis simplicibus v. longioribus parce divisis, pallide viridibus densifoliis *compressiusculis, ditissime fructiferis*; folia caulina erecto-imbricata, humore patula, e basi brevissima coarctatâ anguste ovato-lanceolata, *ubique cymbiformi-concava, valde longitudinaliter plicata, margine basi parum involuto, supra basin latiuscule revoluto, ubique fere serrulato, nervo tenui ante apicem evanido,*

cellulis *anguste linearibus firmis scariosis* et cum alaribus, auriculam angustam sistentibus, incrassatis badiis; perichaetia turgide exserta, foliis cylindraco-convoluta pallida late lanceolato-acuminata longiuscula, elongate pallide basi pellucide fuscidulo-reticulata *tenuinervia vel enervia*; theca immersa ovalis, ore coarctato parvo, badia, exannulata, operc. breviter conico recto, calyptra minuta glabra fusca; perist. d. ext. lanceolato-acuminati angusti *aequidistantes* dense trabeculati, linea longitudinali obsoleta notati, incrassati lutei, dein badii, int. irregulares fugacissimi albidi membranacei, externis adglutinati breviores.

*Pterobryum densum* Hsch. Fl. Bras. I, p. 50. — *Pterogonium densum* Schw. Suppl. III. 1. 2. t. 243, quoad specimen Brasiliense! excl. Syn. Swartz. — *Cryptotheca densa* Hsch. in Musc. Mexic. a Deppe et Schiede lectis. Speciminibus pro descriptione nostra usi sumus.

*Patria.* Mexico: Deppe et Schiede; Brasilia: Sellow. Venezuela, in montibus nivosis Meridae: Moritz.

Ob vestigia cursivis litteris indicata a *P. filicino* proximo toto coelo diversum.

57. **P. filicinum** P. B. (Prodr. p. 83.); *dioicum*; caulis secundarius *humilis, stipite brevi, foliis remotis squarrosis minutulis oblecto*, superne ramis *brevissimis crassis densissime approximatis*, indistincte seriatim foliosis; folia caulina dense imbricata, *brevius anguste ovato-acuminata, cavitate ante apicem abrupta, folia igitur apice impressa, longitudinaliter rugosa, haud plicata, subintegerrima, nervo crassiusculo excurrente, cellulis minute ellipticis, margine apice solo revoluta*; perich. longe lanceolato-acuminata, *vaginantia, non convoluta, nervo in cuspidem longissimam substrictam crassam integram producta*; theca majusculae ovalis, ore minori subcoarctato, badia, operc. breviter conico obtuso; perist. d. ext. longe infra orificium oriundi parum exserti lanceolati geminati breves rufescentes, int. *P. densi*.

Brid. II. p. 257. — *Neckera filicina* Hdw. Musc. Fr. III. t. 18. p. 45. — *Fontinalis filicina* Sw. Prodr. Fl. Ind. Occ. p. 138. — *Hypnum filicoides* Gmel.

*Patria.* Jamaica australis, in montibus excelsis pr. Coldspring: Swartz. Hispaniola: Green 1796. S. Yago de Cuba, Mont Liban, alt. 3500 pedum: Funck et Schlim 1844, Majo, Coll. Linden. No. 2197. *bis.*

A *P. denso* characteribus explicatis longe distinctum.

58. **P. angustifolium** C. Müll.; *dioicum*; caulis secundarius *subhumilis magis compressus laxissime foliosus*, stipite brevi, foliis remotis tenerrimis squarrosis oblecto, ramis breviusculis *mollissimis tenuiter ramulosis* v. simplicibus 1 — 2 pinnatus; folia caulina *P. filicini*, sed *multo angustiora*, margine *ubique denticulato*, nervo *tenuiore ante apicem evanido*, cellulis *anguste linearibus*; perichaetia turgide exserta, foliis nervo in cuspidem *maxime elongatam* subintegerrimam producto lato rufescente piliferis, *infra pilum denticulatis*.

*Patria.* Insula Trinidad Antillarum, ubi in monte Tocuche, 3400 ped. alto, 1847 Crüger legit.

Fructum perichaetii unius vetusti non vidimus; species pulcherrima et notis cursive impressis a *P. filicino* distinctissima.

59. **P. Symphysodon** C. Müll.; *dioicum?* caulis primarius repens filiformis nudus, stoloniferus vage ramosus, secundarius erectus inferne nudus, superne dendroideopinnatus v. bipinnatus, ramis compressiusculis; folia caulina dense imbricata suboctofaria erecto-patentia, *humore horizontalia*, *latiuscule cymbiformi-oblongo-lanceolata*, cavitate ante apicem abrupta, folia igitur apice subimpressa, acumine brevi *latiusculo remote grosse dentato*, haud plicata, nervo *ad medium evanido*, cellulis *angustissime linearibus viridibus*, margine vix revoluta; perichaetia turgide exserta patulifolia, foliis late vaginantibus lanceolato-acuminatis longis *enervibus plicatis*, *acumine remote grosse serrato*; theca immersa ovato-cylindracea submicrostoma fuscescens, operc. convexo rostrato, ca-

lyptra mitraeformi, basi incisula, sparse pilosa; perist. d. ext. regulariter geminati lanceolati ut interni *P. filicini*.

*Symphysodon neckeroides* Dz. et Molkb. Ann. d. sc. nat. 1844. p. 314.

*Patria.* Borneo, Sumatra: Korthals.

A *P. filicino* et *angustifolio* characteribus explicatis differt.

60. **P. convolutum** C. Müll.; caulis repens filiformis nudus, ramis erectis dendroideis, inferne subaphyllis, distiche ramulosis; folia suboctofaria erecta, lateralia erecto-patentia ovato-lanceolata acuminata integerrima, *versus apicem convoluta* nitida stricta, nervo tenui ad medium folii fere evanido; perich. latiora duplo longiora filiformi-acuminata, obsoletinervia; theca in ped. brevissimo, intra folia perich. immersa, ovato-oblonga.

*Neckera convoluta* Dz. et Molkb. Ann. sc. nat. 1844. p. 312.

*Patria.* Java.

b. *Folia binervia.*

61. **P. cochlearifolium** C. Müll.; *monoicum*; caulis erectus, supra basin brevem subsquamoso-foliosam ramis brevibus simplicibus v. longioribus iterum ramulosis *remotis turgidis obtusiuscule acutatis* pallescenti-viridibus 1—2 pinnatus; folia caulina erecto-appressa turgide concava, e basi *auriculato-rotundata fuscâ late cochleariformi-oblonga*, cavitate ante acumen breve latiusculum abrupta, haud plicata, *ubique integerrima*, margine erecto v. parum involutaceo, nervis binis brevibus, cellulis elongatis anguste linearibus; perichaetia exserta, foliis late vaginantibus longe lanceolato-acuminatis, superne subdenticulatis, longius laxius reticulatis, enervibus; theca immersa c. calyptra, operculo et peristomio omnino *P. densi*.

*Cryptotheca cochlearifolia* Hsch. in Musc. Mexic.

*Patria.* Mexico: Deppe et Schiede.

62. **P. cylindraceum** C. Müll.; *dioicum?* caulis secundarius dendroideo-bipinnatus humilis, stipite plerum-



que jam basi squamaeformi - folioso, ramis inferioribus subfasciculatim superioribus pinnatim divisim compressis; folia caulina erecto - patentia, cymbiformi - ovato - acuminata angusta, *haud plicata* integerrima, nervis *binis* inaequalibus brevibus, elongate angustissime lineari - areolata, submollia, viridia; perichaetia *longe anguste cylindracea*, foliis dense appressis, externis ovatis brevibus, internis lanceolatis longe acuminatis *subnervibus*; theca immersa *cylindracea gracilis longa pachyderma, ore non constricta*, fusca; perist. d. ext. *P. filicini*.

? *Neckera cylindracea* Mont. Ann. d. sc. nat. 1848. p. 109.

*Patria.* Taiti?: Lepine.

#### Pterobrya incerta.

1. **Pterobryum obliquifolium** Hsch. (Fl. Bras. I. p. 51.); caulis secundarius altiusculus superne inordinate bipinnatim ramosus, dense foliosus complanatus; folia imbricata disticha cordato - ovata obliqua mucronulata, valde concava, integerrima, tenera, pellucida, nitentia, luteo - viridia, nervo tenerrimo versus medium evanescente concolori, cellulis oblongis confertis. †.

*Patria.* Brasilia, in cortice arborum: Sellow.

2. **Neckera crenulata** Harvey (Ic. Pl. Rar. Hooker. t. 21. f. 6.); *monoica?* caulis secundarius 3—6 pollicaris pendulus, irregulariter pinnatus *inordinate distichophyllus*, pallide viridis; folia caulina laxè imbricata, siccitate flexuosa, humore haud distincte distichacea, e basi *cymbiformi - concava latiuscula margine involutâ attenuato - ligulata obtusa, summo apice eroso - dentata*, plus minus longitudinaliter plicata, incrassate elliptico - areolata, nervo unico longiusculo tenui interdum furcato; theca perichaetio fimbriato, e foliis subulatis multis constructo, immersa.

*C. diagnosi* in Lond. Journ. of bot. 1840. p. 13.

*Patria.* Nepal.

Fructum non vidimus.

Sectio VIII. **Erpodium** Brid. II. p. 167. — Plantae cladocarpicae *humillimae pusillae tenellae* parce divisae, subcompressae v. teretes. Folia ovate-acuminata, e cellulis *laxis amplis bryoideo-rhomboidalibus* composita. Theca gymnostoma exserta minutissima.

*Aulacopilo* generi proxima sectio.

**63. P. coronatum** C. Müll.; *monoicum*; repens *densissime cespitosum* tenellum exiguum, ramulis brevissimis *teretibus veluti gemmaeformibus erectis densissime foliosis* viridulis; folia caulina *arcte squamuloso-appressa*, e basi amplexicauli *latissime rotundato-ovata obtusa*, *apiculata*, enervia, caviuscula, margine erecto integerrimo, cellulis amplissimis, inferne (c. alaribus) *depresso-rhomboidalibus*, intus utriculo primordiali valde repletis, pellucidis, haud *obscuris*, apice *bryoideo-prosenchymaticis*; perichaetia *turgida clausa* exserta, in ramo fertili breviter elongato terminalia, foliis *latioribus pellucidioribus*, e cellulis *ubique aequalibus bryoideo-prosenchymaticis compositis*; theca *immersa* oblonga, gymnostoma mollis leptodermis, ore crasso, calyptra magna *turgescenti-campanulata* 16-sulcata, *ad plicas valde verrucosa*, basi 16-laciniata.

*Erpodium Brasiliense* C. Müll. Bot. Zeit. 1845. p. 90. — *Anoetangium? coronatum* Hook. et Wils. Lond. Journ. of bot. 1844. p. 150.

*Patria.* Brasilia, prov. Ceará pr. Cachoeira ad arbores: G. Gardner. No. 32. G. 1. mense Julii 1839 legit. **Rarissimum!**

A *P. Domingensi* notis cursive impressis distinctissimum. *Orthotricho obtusifolio* haud dissimile.

**64. P. Domingense** C. Müll.; *monoicum*; repens tenellum exiguum *subcespitosum subdepressum* vage ramosum viridulum; folia *laxe squamuloso-imbricata*, e basi subamplexicauli *ovato-oblonga obtusa v. obtuse acuminulata*, enervia planiuscula, margine erecto integerrimo, cellulis amplis, inferne (c. alaribus) *laxe quadratis rhomboidalibus*, apice *rotundate prosenchymaticis*, omnibus aequalibus teneris intus valde granulosus igitur *obscuris*; peri-

chaetia *longius exserta ocreate patula*, in ramulo fertili breviter elongato terminalia, vaginantia longiora, caulinis similia; theca in ped. *breviter exserto* carnosio flavido erecta minuta pallida leptodermis anguste oblonga gymnostoma, ore sublacerato parum coarctato, operc. conico brevi; calyptra  $\frac{2}{3}$  thecae obtegens sublamelloso-sulcata glabra pallida.

*Erpodium Domingense* C. Müll. Bot. Zeit. 1843. p. 773. — *Anoectangium Erpodium Domingense* Brid. II. p. 167. — *Anoectangium Domingense* Spreng. in litt. ad Balbis. — Schwägr. Suppl. III. II. 1. t. 267.

*Patria.* Hispaniola, ubi ad arbores semel legit Bertero. Rarissimum!

**65. P. Perrottetii** C. Müll.; *monoicum? P. Domingensi* simillimum, *laxissime foliosum tenerrimum, vix depressum*; folia caulina *ovato-acuminata*, cellulis *elongate prosenchymaticis*, amplis pellucidis, utriculo primordiali ubique repletis, *alaribus ad alas basilares tantum evolutis* laxe quadratis depressis teneris pellucidis; perichaetia in ramo fertili breviter elongato *laxissime remote foliosa*, *foliis subreflexis acuminatioribus quam caulinis*; theca *sessilis, sed ob folia perichaetialia remota distincte conspicua truncato-oblonga macrostoma* tenerrima.

*Leptangium Perrottetii* Mont. in litteris. — *Schistidium Perrottetii* Mont. Ann. Sc. nat. IX. 1838. p. 51.

*Patria.* Senegambia, ubi ad terram nudam arenosam repens legit Perrottet. Rarissimum!

Operculum et calyptra desunt quidem, species tamen e structura tota procul dubio huc pertinet.

Species e sectione et genere incertae.

**1. Neckera blanda** Harv. (in Hook. Ic. Pl. Rar. t. 22.); caulis secundarius erectus bipinnatus rigidus, pulchellus parvulus; folia laxe imbricata *crispatula*, e basi late ovata subito lanceolata brevia, superiora sensim lanceolata, margine reflexo ubique serrato, nervo valido apicem subattingente; theca in ped. perbrevis erecta, turgide ovata parvula, operc. conico acuminato recto.  $\frac{1}{4}$ .

Cum descriptione in Lond. Journ. of bot. 1840. p. 14.

*Patria.* Nepal: Wallich.

*Pilotrichum delendum.*

? **P. denticulatum** P. B. (Prodr. p. 81.); caule erecto? subsimplici, foliis ovatis obtusis, marginibus dentato-spinosis; calyptra campanulata. †.

Brid. II. p. 266.

*Patria.* Insula Bourbonis: Aubert du Petit Thouars.

An *Mniadelphus*?

Gen. V. **Aulacópilum** Wils.

Lond. Journ. of bot. 1848. p. 90.

Nomen ab *αὐλάξ sulcus* et *πίλον calyptra* ductum.

Calyptra *dimidiata* thecam omnino obtegens et basi more *Calymperis* includens *plicata*. Peristomium nullum.

Ex analogia *Erpodii*, habitu, ut videtur, proximi ad *Neckeraceas* duximus.

*Patria.* Nova Seelandia.

1. **A. glaucum** Wils. (l. c. p. 91. t. 4.); exiguum depressum parce divisum gracillimum compressum glaucum; folia dense bifaria, e basi ovata oblique acuminata flaccida planiuscula enervia, margine ob papillas crenulato erecto, cellulis ampliusculis brevibus prosenchymaticis glauco-viridibus granulosis; perich. erecta lanceolata appressa minora concava; theca in ped. perbrevis pallido carnosulo laterali erecta minutissime ovata pallida glauco-viridis truncata, exannulata, opere. conico-rostellato recto, calyptra laevi magna. †.

*Patria.* Nova Seelandia, ad truncos *Fabroniis* associatum.

Subtribus II. HYPNACEAE.

Peristomium internum ciliis interpositis.

Gen. VI. **Hookeria** Sm.

Transact. of Linn. Soc. IX. p. 275. — *Pterygophyllum*, *Lepidopilum* et *Eriopus* Brid. — *Chaetomitrium*, *Holoblepharum* et *Distichophyllum* (ex parte) Dz. et Molkb. — *Neckera*, *Leskea* et *Hypnum* antiq.

Nomen in honores ill. Sir William Jackson Hooker conditum.

*Calyptra mitraeformis*. Peristomium duplex: dentes externi lanceolato-subulati, linea media longitudinali plus minus lata exarati, trabeculati, interni in membrana plus minus alta carinata subulati, haud ciliiformes, ciliis rudimentariis vix conspicuis vel rarius perfectis interpositis.

*Patria*. Terras praesertim calidas v. tropicas, Europam species tantum duae habitantes.

Sectio I. **Euhookeria**. Cellulae foliorum *laxae* laeves; folia acuminata pellucida, amoene reticulata, *marginata*, nervis callosis; caulis *decumbens complanatus*.

a. *Lute complanatae*.

1. **H. laete-virens** Hook. et Tayl. (Musc. Brit. ed. I. p. 89. t. 27.); *monoica*; *latiuscule complanata* laete viridis procumbens; folia caulina laxe conferta, e basi subrotundate *late ovata concavâ late ovata longe acuminata*, ubique limbo tenui pallido apice solo obsolete denticulato praedita, nervis binis pallidis ante apicem evanidis glabris, summo apice plerumque dorso folii breviter aculeiformibus, cellulis ubique laxis pellucidis, *utriculo primordiali instructis*; perich. interiora multo minora late lanceolata acuminata tenuiora obsolete nervosa v. enervia immarginata integerrima; theca in ped. elongato crasso purpureo laevi tortili *turgide ovalis pendula*, operc. conico subulato, calyptra carnosa basi subintegra; perist. magni dentes ext. pulcherrime rubri, linea longitudinali lata exarati, interni flavidi aequales laeves carinati vix perforati.

*H. albicans* Tayl. Fl. Hib. II. p. 36. — Schw. Suppl. II. II. 1. t. 163. — *Pterygophyllum laete-virens* Brid. II. p. 350.

*Patria.* Hibernia, in paludosis; Dunscombe's wood pr. Cork: J. Drummond 1815 detexit, ad O'Sullivan's Cascade et Turk Waterfall pr. Killarney: W. H. Harvey.

Flos masc. subturgide gemmaceus; fol. perig. perichaetialibus similia; antheridia turgida brevia, paraphysibus brevissimis cincta. Ex habitu *Pterygophyllo lucenti* similis; quoad patriam memorabilis.

2. **H. nivalis** C. Müll.; *dioica?* *H. laete-virenti* simillima, latiuscule complanata, pallide viridis v. rufescens, parce divisa; folia *integerrima*, e cellulis ubique pellucidis inanibus irregularibus reticulata; perich. varie complicata, veluti undulata, caulinis similia, interna angustissime lanceolata longissime acuminata *marginata* enervia; theca, pedunculus et peristomium *H. laete-virentis*.

*Patria.* Venezuela, prov. Merida, in montibus nivosis inter *Hypopterygium nivale*: Moritz.

Species pulcherrima.

b. *Anguste complanatae.*

3. **H. marginata** Hook. et Wils. (Lond. Journ. of bot. 1844. p. 160.); fastigiatis ramosa, ramis brevibus parum et anguste complanatis rufescentibus; folia latiuscule conferta, sicca erecta vix crispata, e basi latissime truncatâ ovato-acuminata, *in acumen longiusculum valde limbatum producta*, limbo ubique distinctissimo composito apice denticulato, nervis longis fuscatis ante apicem abruptis tenuibus, cellulis ubique laxis, basi majoribus, irregularibus rigidis hyalinis pallide fuscatis; theca ovata cernua, opere. rostrato, calyptra laevi pallida carnosissima.

*Patria.* Brasilia: Gardner No. 87.

Ab *H. Olfersiana* characteribus cursive impressis distat; sterilem tantum vidimus.

4. **H. Olfersiana** Hsch. (Fl. Bras. I. p. 61. t. 3.); *monoica*; anguste complanata tenella parvula dilute viridis; folia caulina latiuscule conferta, e basi angustiore

*latiuscule ovata*, sensim et latiuscule acuminata, basi caviuscula, limbo tenuissimo e *cellularum serie unica formato integerrimo*, cellulis ubique amplis pachydermibus inanibus *irregularibus* hyalinis, nervis ultra medium productis tenuibus; perich. *lanceolata longissime acuminata* enervia; theca in ped. longiusculo glabro minute obovata horizontalis, operculo pallidiori recte subulato, calyptra basi multifida, apice *scabra*; perist. *H. sublimbatæ*. †.

*Patria.* Brasilia, Tijuca in vicinia Sebastianopoleos: Olfers.

Fol. perig. ext. late ovata acuminata, interiora sursum latiora breviora ovata acuta, intima minutissima rotundato-ovata, omnia profunde concava enervia densius reticulata. Calyptra, in contextu glabra dicta, in tabula scabra delineata est. *H. albicanti* quoad staturam similis.

5. *H. cuspidata* C. Müll.; *monoica*; *H. Olfersianæ* simillima, sed folia *subhomomalla*, e basi late truncata ovata sensim longissime et tenuissime acuminata integerrima v. obsolete denticulata, limbo indistincto, nervis tenuibus, cellulis *elongate prosenchymaticis rhomboidalibus magnis laxis subinanibus*; perich. interiora *angustissime lanceolata longissime acuminata* enervia; theca in ped. longiusculo ascendente glabro horizontalis obovata; perist. *H. sublimbatæ*.

*Patria.* Venezuela: Moritz.

Folia ramulorum juniorum saepe subenervia. Flos masc. minutus *quadrifolius*, fol. perig. omnibus longiuscule *anguste lanceolato-acuminatis*, anth. paucissimis parvulis.

6. *H. albicans* Hook. (Musc. Brit. 1818. p. 90.); *monoica?* anguste complanata pallida tenella; folia caulina e basi angustâ *anguste oblonga late et sensim acuminata, rigida*, aequaliter concava, limbo ubique tenuissimo albidio *subincrassato superne angulate flexuoso, igitur brevissime nodiformi-denticulato*, cellulis ubique *laxissimis, maxime pellucidis, magnis aequalibus, inanibus, rigidis, haud facile madore emollientibus*, longiuscule rhomboidaliter prosenchymaticis, parietibus albidis, nervis ultra me-

dium productis tenuissimis albidis; perich. minora tenerima, e basi concava ovata enervi acuminata, immarginata; theca in ped. longo laevi horizontalis minute obconica, operc. conico subulato, calyptra laevi basi late multifida; perist. parvum.

*Pterygophyllum albicans* Brid. II. p. 349. — *Leskea albicans* Hdw. Sp. Musc. p. 218. t. 54. et Swartz Fl. Ind. Occ. III. p. 1811. — *Hypnum albicans* Sw. Prodr. Fl. Ind. Occ. p. 140. — *H. albens* Gmel. Syst. Nat. II. p. 1343. — *H. pallidum* Brid. Musc. Rec. II. p. 127.

*Patria.* Jamaica, in truncis vetustis emortuis regionis temperatioris udorum: Swartz.

Ico tabulae Schwägrichenianae haud bona, caule nimis lato.

7. **H. Auberti** C. Müll.; *monoica?* *H. albicanti* simillima; folia caulina late oblongo-ovata, acumine breviusculo subito fere terminata, flexuosa, igitur inaequali-concava, flaccida, facillime humore emollientia, limbo crassiusculo laxiusculo pellucido, dein flavidulo, superne remote subangulate obsolete denticulato, nervis crassiusculis flavidulis ante apicem subabruptis, cellulis amplis aequaliter hexagonis mollibus, parietibus haud albidis, sed chlorophyllosis; perich. caulinis multo minora, tenerrima, e basi concava ovata acuminata, enervia; theca in ped. elongato glabro.

*Pt. albicans* Brid. II. p. 349. — *Neckera Auberti* ej. Sp. Musc. II. p. 28. — *Racopilum Auberti* P. B. Prodr. p. 87.

*Patria.* Insula Franciae: Aubert du Petit Thouars.

Thecam non vidimus.

8. **H. vesiculosa** C. Müll.; *monoica?* *H. albicanti* simillima; folia caulina e basi truncatâ anguste oblonga, late et sensim acuminata, mollissima flaccida, aequaliter concava, limbo ubique tenuissimo, e cellularum serie unica composito, haud incrassato, superne angulate flexuoso, igitur brevissime nodiformi-denticulato, cellulis ubique laxissimis, maxime pellucidis, amplis aequalibus, inanibus, mollissimis, parietibus chlorophyllosis, nervis ultra me-



dium productis *tenuibus*, subalbidis; perich. *H. albican-*  
*tis*; pedunculus elongatus glaber.

*Pteryg. albicans* Brid. II. p. 349. — *Hypnum vesiculosum*  
Brid. Sp. Musc. II. p. 100.

*Patria.* Insula Bourbonis: Bory St. Vincent.

Thecam non vidimus.

9. *H. Jagiana* C. Müll.; *H. albicanti* similis, sed  
folia *tenerrima flaccida, haud rigida, multoties compli-*  
*cata torta, e basi lata veluti truncatâ latius oblonga,*  
*apice subito fere longe et tenuissime acuminata,* limbo  
tenuissimo albido minus angulate flexuoso subintegerrimo  
rarius apice tenuissime denticulato, *cellulis tenerrimis fa-*  
*cillime madore emollientibus, nervis ad apicem fere pro-*  
*ductis, distinctius spinaeformi-abruptis.*

*Pterygophyllum albicans* C. Müll. Linn. XIX. p. 213.

*Patria.* Venezuela, Jagi prov. Merida: Moritz in-  
ter *Mnium rostratum.*

Sterilem tantum vidimus.

10. *H. sublimbata* C. Müll.; *monoica; H. Jagianae*  
similis, sed viridior, folia e basi truncatâ oblonga, apice  
subito fere mucronato-acuminata, *limbo e cellularum se-*  
*rie unica formato,* superne subangulate flexuoso obsolete  
denticulato, nervis obscurioribus ultra medium productis  
minus distincte spinaeformi-abruptis, *cellulis laxis par-*  
*vulis mollibus valde pachydermibus;* perich. *angustissima*  
*longe acuminata* obsoletinervia; theca in ped. longiusculo  
glabro ascendente; calyptra glabra basi multifida; perist.  
angustum longum *H. laete-virentis.*

*Patria.* Chile: Pöppig.

Flos masc. subturgidus; fol. perig. late ovata con-  
cava breviter et saepe reflexo-acuminata enervia; anth.  
pauca, paraphysibus tenuissimis cincta.

11. *H. albata* C. Müll.; *monoica? H. sublimbatae*  
proxima, sed *albida,* folia *longius acuminata,* apice *re-*  
*curviusculo,* limbo apice *distincte denticulato,* *cellulis ma-*  
*ioribus multo tenerioribus;* perich. *caulinis paullo angu-*

*stiora*; theca in pedunculo *elongato* glabro oblonga, longe operculata, suberecta, minuta.

*Patria.* Insula Trinitatis, inter *Rhacopilum insigne* Hsch.: Sieber coll. No. 19.

Sectio II. **Lepidopilum** Brid. II. p. 267. — Cellulae foliorum elongatae *plus minus densae et angustae* laeves; folia *immarginata*, nervis plerumque tenuibus vix callosis, interdum nullis; *caulis decumbens pinnate complanatus*.

Ab *Euhookeriis* foliis immarginatis, siccitate plerumque complicatis et caule pinnatim complanato plantae distinctae.

a. *Folia serrata.*

12. **H. incurva** Hook. et Grev. (in Brewster Edinb. Journ. 2. p. 231.); *monoica*; latissime cespitosa amoene viridis, dein amoene rufescens procumbens latiuscule complanata valde ramosa; folia caulina laxè imbricata, sicca crispata, *late oblongo-ligulata maxime obtusa*, immarginata, *sed margine supra basin denticulatam dentibus magnis apice excisis dense grosse duplicato-serrata*, nervis crassiusculis ultra medium productis spinoso-abruptis et dorso spinosis, cellulis foliorum viridium chlorophyllosis, rufescentium inanibus, laxis magnis regulariter angustiuscule prosenchymaticis; perich. *late ovata profunde concava tenera breviter acuminata enervia integerrima v. externa apice solo serrata*; theca in ped. *longissimo* crasso purpureo laevi *elongate cylindrico-oblonga*, ore constricta, nutans v. horizontalis, plus minus fuscata, opere. conico oblique rostrato concolori, calyptra magna campanulata multifida glabra; perist. magnum, internum flavidum haud perforatum.

*Chaetephora incurva* Hsch. Hor. Phys. Berol. p. 65. t. 13. — Brid. II. p. 336. — Schwägr. Suppl. III. II. 1. t. 275.

*Patria.* Chile: A. de Chamisso. Brasilia, ubi haud rara videtur: Gardner et al. In insula Trinidad Antillarum copiose legit Crüger in montibus Tamanaco 10, Majo et Tocuche 14. Mart. pulcherrime fructiferam.

Quoad notas illustratas cum nulla specie alia confundenda. Flos masc. turgide gemmaceus, fol. perig. e basi late ovata convolutacea tenerrime reticulatâ ligulate acuminata duplicato-serrata enervia, anth. parvis et paraph. tenuissimis longioribus.

13. **H. Langsdorffii** Hook. (Musc. Exot. t. 121.); *hermaphrodita*; longe repens, prostrata, inaequaliter complanata et irregulariter ramosa, sordide viridis, dein rufescens, subnitida, robusta; folia caulina undique laxiuscule inserta, sed disticha directione, *ovata subacuminata et mucrone brevi lineari terminata, membranacea, rigidula, dentibus albidis apice veluti marginate evidenter simpliciter serrata*, nervis ultra medium productis callosis lutescentibus, cellulis subtilibus linearibus, *veluti in membranam conflatis, vix conspicuis*, pallide viridibus pellucidis; perich. e basi late ovata concava enervi longiuscule anguste acuminata, integerrima; theca in ped. longiusculo glabro tenui inclinata *minute ovalis*, operc. conico longiuscule oblique curvato, calyptra pallide fusca laevi, superficie archegoniis nonnullis obtecta; perist. d. ext. linea media latiuscula exarati, interni aequales laeves. †.

*Chaetephora Langsdorffii* Brid. II. p. 337. — Schw. Suppl. II. t. 162.

*Patria.* Brasilia, pr. Rio Janeiro: de Langsdorff.

Cum *H. incurva*, quacum Schwägrichen (sec. loc. natale, in Serra d'Estrella designatum) commutavit, notis cursive impressis nunquam confundi potest.

14. **H. nitens** Hsch. (Fl. Bras. I. p. 65.); *dioica?* repens, vage ramosa, ramis elongatis complanatis pennaeformibus, interdum breviter ramulosis, luteo-viridis nitens; folia caulina patentia, apice subrecurvata, oblongo-acuminata, basi subdimidiata seu pterygoidea, concava, apice remote et argute serrata, nervis laxis tenuissimis, vix conspicuis, infra medium evanidis, cellulis angustis parallelogrammatis; perich. teneriora, enervia, laxius reticulata, ovato-acuminata, integerrima, hyalina,

interiora sensim minora; theca in ped. erecto, apice incrassato, laeviusculo suberecta ovata brevis, calyptra basi 6—8-fida, glabra; perist. d. ext. linea media diaphana exarati, subtilissime trabeculati, margine scaberuli, intense rufi, interni pertusi. †.

*Patria.* Ad truncos putridos sylvarum umbrosarum prope Novo-Friburgum, societate *H. subnervis* (?); Beyrich mense Decembr. legit.

Cui affinis?

15. *H. Parkeriana* Hook. (Spr. Syst. Veget. IV. p. 197.); caulis elongatus, ramis complanatis; folia bifariam imbricata, oblonga acuta, undulata, apice serrulata, nervis infra apicem evanidis; theca oblonga horizontalis, calyptra laciniata. †.

*Patria.* Surinam.

Cui affinis?

16. *H. Pappiana* Hmp. (Ic. Musc. t. 2.); *monoica*; prostrata latiuscule complanata vage pinnatim ramosa appressa laete viridis; folia caulina laxissime imbricata, sicca subtorta angusta, madefacta e basi asymmetrica late ovata late oblongo-acuminata, planiuscula, margine apicis dentibus simplicibus *vel apice minute duplicatis grossiuscule serrata*, nervis brevibus ad medium productis tenuibus pallidis, *plerumque dentis forma abruptis et saepe dorso parce dentatis*, cellulis elongatis laxis ob utriculum primordiale pachydermibus chlorophyllosis veluti densis; perich. multo minora anguste acuminata binervia; theca in ped. longiusculo gracili flexuoso apice inclinato incrassato oblongo-cylindracea, ore constricta, operculo conico-acuminato recto, calyptra late multifida *glabra*, perist. majusculo congenerum.

*Patria.* Prom. b. spei, Zwellendam, ad truncos arborum: Papp in Hb. Kunzeano.

Flos masc. minutus; fol. perig. perichaetialibus similia, sed multo teneriora.

b. *Folia denticulata.*α. *Pedunculus scaber.*

17. **H. Mülleri** Hmp. (Linn. XX. p. 84.); *monoica*; *H. Pappeanae* similis, sed *latius complanata*, folia *dense conferta* minus torta, e basi *symmetricâ* late ovato-lanceolata, *acumine tenui terminata*, *marginè ubique revolutò*, *apice simpliciter denticulato*, *nervis tenuissimis glabris*, *tenuiter haud dentiformi-abruptis*, *cellulis elongatis angustis pellucidis leptodermibus haud chlorophyllosis*; perich. caulinis similia, sed convolutacea, teneriora et enervia; theca in ped. breviusculo gracili flexuoso *ciliato-papilloso suberecta elliptica leptodermis glaberrima pallida*, dein fuscescens, operculo *turgide conico subulato*, calyptra *leptodermi irregulariter fimbriata*, pilis latiusculis *paucis adspersa*; perist. *longissimum*: dentes ext. *lamina exteriorè angustissima dense articulata integra rufa*, *lamina interna multo latiore, maxime prominente rugulose membranacea dense articulata*, interni longissimi subulati illos aequantes rugulose membranacei, fusciduli, haud perforati, sed linea tenuissima pallidiore exarati.

*Lepidopilum subenerve* C. Müll. Linn. XIX. p. 214.

*Patria.* Venezuela: Moritz.

Ab *H. subenervi* foliis multo latioribus pellucidis, haud chlorophyllosis, margine reflexis et nervis crassioribus longioribus distat.

18. **H. intermedia** C. Müll.; *monoica*; inter *H. subenervem* et *Mülleri* intermedia; folia *symmetrica, complicate contorta, angustiuscule oblongo-acuminata, obsolete vel valde denticulata*, margine erecto vel basi paulisper revolutò, *nervis tenuissimis brevibus*, *cellulis elongatis angustis pellucidis*; perich. interna minora angustius acuminata; pedunculus brevis *ciliato-papillosus*, theca *suberecta anguste cylindræo-oblonga*, operculo conico-subulato recto, calyptra *glabra*; peristomium *H. Mülleri*.

*Patria.* Insula Trinidad Antillarum, ubi legit Crüger 14. Mart. et 28. Aug. 1847. monte Tocuche.

Ab *H. subnervi* differt: foliis symmetricis complicate contortis, pellucide reticulatis, margine interdum reflexo et calyptra glaberrima; ab *H. Mülleri* refugit: foliis angustis, complicate contortis, obsolete denticulatis, longius acuminatis, brevinervibus et calyptra glaberrima.

19. **H. Deppeana** C. Müll.; *monoica*; *H. intermediae* simillima, sed folia *longissime angustissime acuminata*, acūmine dentato, *maxime plicata, stricta, haud contorta, angustius reticulata*; folia perichaetialia, pedunculus et theca *H. intermediae*, calyptra *pilosiuscula*.

*Lepidopilum subnerve* Hsch. in Musc. Mexic. Deppeanis.

*Patria.* Mexico: Deppe.

20. **H. subnervis** Hmp. (Linn. XXI. p. 84.); *monoica*; *H. Mülleri* simillima, sed folia *asymmetrico-oblongo-acuminata angusta, obliqua, minora, subplanissima, margine plano, nervis quam maxime tenuibus subobsoletis brevioribus, cellulis chlorophyllose coloratis vel pellucidis*; perich. *longissime et angustissime acuminata*; pedunculus *brevior*, theca *minor, magis cylindraceo-oblonga*, calyptra *late multifida haud fimbriate appendiculata*.

*Daltonia scabriseta* Arn. Disp. p. 54. — *Lepidopilum subnerve* Brid. II. p. 268. — *Pilotrichum scabrisetum* ej. Mant. Musc. p. 141. — *Neckera scabriseta* Schw. Suppl. I. II. p. 153. t. 82.

*Patria.* Guiana Gallica: Richard. Venezuela, colonia Tovar, altitud. 5500': Moritz; prov. Caracas, prope Galipan alt. 5000': Funck et Schlim 1845. Januario. Coll. Linden. No. 352.

Specimina *Richardiana* folia perfecte pellucida habent.

21. **H. Grevilleana** Tayl. (Lond. Journ. of bot. 1846. p. 60.); laxe cespitosa, basi ramosa, ramis ascendentibus simplicibus complanatis pallide flavo-viridibus nitentibus; folia subimbricata patentia, *planiuscula undulata, oblongo-lanceolata, serrulata*, basi binervia; theca in ped. *elongato scaberrimo subflexuoso inclinata ovata*, operc. conico rostrato, calyptra *sursum pilosa*; perist. d.

ext. linea media opaca exarati, int. in membrana brevissima positi. †.

*Patria.* Ad truncos arborum, in sylvis prope Esmeraldos Andium Quitensium, alt. 3000': W. Jameson.

Cui affinis?

**22. H. chloroneura** Tayl. (Lond. Journ. of bot. 1846. p. 61.); laxe cespitosa *debilis* procumbens subramosa *elongata*; folia laxa *tenuia* patentia, oblonga acuta serrata, *scariosa viridia*, nervis *intense viridibus*; theca in ped. scabro *brevissimo* flexuoso inclinata turbinata *minuta*, operc. recte rostrato, calyptra basi laciniata. †.

*Patria.* Monte Pichincha prope Quito: W. Jameson.

Ex animadv. *Wilsoni* (l. c. p. 452.) *H. subnervi* simillima et forsan forma gracilior, nervis perfectius evolutis, quod non putamus.

**23. H. erectiuscula** Tayl. (Lond. Journ. of bot. 1846. p. 60.); laxe cespitosa, erectiuscula biuncialis complanata pallide olivacea, subramosa; folia laxe imbricata patentia tenuia oblongo-ovata apiculata serrata, basi binervia, substriata flexuosa; sicca contorta; theca in ped. scabro subunciali erecta elongate obconica; perist. d. ext. angusti opaci, interni in membrana profunde fissa. †.

*Patria.* Ad ramos arborum prope Esmeraldos Andium, alt. 6000': W. Jameson 1827. in Hb. Grevill.

Ex animadv. *Wilsoni* (l. c. p. 452.) *H. subnervi* affinis, sed pedunculo longiore foliisque latioribus magis symmetricis differt.

β. Pedunculus glaber.

**24. H. Utacamundiana** Mont. (Ann. d. sc. nat. 1842. p. 247.); *dioica*; latiuscule complanata, parce divisa, pallide viridis, *dein purpurascens*; folia caulina laxe conferta, sicca parum flexuosa, e basi *symmetrica* late ovata concavâ *lanceolato-acuminata*, *marginē hic illic parum reflexo*, *basi obsolete denticulato*, *apicem versus inaequaliter serrato*, nervis *longis ultra medium productis palli-*

*dis, dein purpurascentibus, crassiuscule callosis, spinae forma abruptis, glabris, cellulis pellucidis breviusculis densiusculis et angustiusculis; perich. in ramulo fertili longiuscule exserto posita, e basi late ovata enervi laxa et tenuiter reticulata acuminata integerrima, theca in ped. mediocri flexuoso glabro subinclinata oblongo-cylindracea vel subclavata, operc. conico obtusissimo, calyptra glabra; perist. d. ext. linea media latiuscula pallida exarati, interni illos aequantes albidhi hiantes.*

*H. Lindenbergi* Hmp. in Linn. XX. p. 85. inedita memorata?

*Patria.* Montes Neelgherienses, in sylvis prope Ootacamund: Perrottet.

Ex habitu *H. Mülleri* similis, sed nervis, reticulatione et serratura foliorum ab ea ceterisque affinibus longe refugit.

**25. H. Patrisiae** Hmp. (Ic. Musc. t. 1.); radiculis *stellatim effusis appressa*, effusa, vage ramosa, tenella pulchella, angustiuscule complanata; folia caulina laxa imbricata *contorta, subdimorpha*: illa serierum superiorum e basi symmetrica amplexicauli rotundata ovato-acuminata, acumine parum reflexiusculo et plicato, illa serierum inferiorum longiora oblonga, acumine longiusculo valde reflexo plicato, basi magis asymmetrica, margine interdum medio folii late reflexa, omnia enervia, planiuscula, margine ubique fere denticulato, cellulis angustis elongatis pellucidis; perich. multo minora angustiora et magis acuminata; theca in ped. mediocri gracillimo glabro minute oblonga tenella, operc. conico recte subulato, calyptra *angusta, basi ciliis articulatis eleganter fimbriata* glabra; perist. d. ext. latiusculi subulati, linea media obscura exarati, alterne cellulose articulati, haud trabeculati, interni aequales tenues vix pertusi dense articulati, omnes obscuri rugulosi.

*Hypnum Patrisiae* Brid. II. p. 539.

*Patria.* In Cayennae arboribus praesertim in *Patrisia papyrifera*, foliis arctissime adhaerens: Hb. Feéanum. Brasilia, Monte Video: Sellow. Insula Trinidad,



monte Tamanaco: Crüger 9. Majo 1847 in ramis tenuibus appressam iterum legit.

Notis explicatis, praesertim radiculis stellatim effusis, calyptra fimbriata et peristomio externo haud trabeculato lamina unica praedito, species ab omnibus affinibus distinctissima.

**26. H. diaphana** Walker-Arn. (Disp. d. M. p. 56.); latiuscule complanata *maxime flaccida mollissima*, ramis *elongatis* graminicoloribus, *haud nitida*; folia caulina *laxissime conferta*, bifarie complanata, *mollissima, subplanissima*, e basi asymmetrica, latere unico complicata *asymmetrico-ovata, obliquiuscule acuminata*, superne *vix denticulata*, nervis ad medium fere productis tenuibus, cellulis *elongatis laxis chlorophyllosis*, igitur pachydermibus.

*Pterygophyllum diaphanum* Brid. II. p. 345, e cujus speciminibus, patria designata carentibus, diagnosin duximus. — *Hypnum diaphanum* Sw. Prodr. Fl. Ind. Occ. p. 140. — Hedw. Sp. Musc. p. 243. t. 61, sed foliis enervibus false delineatis.

*Patria.* Jamaica, in depressis montium: Swartz.

Pedunculus ignotus.

**27. H. latifolia** C. Müll.; *H. subnervi* proxima, sed robustior, folia asymmetrica *late oblongo-acuminata* obliqua subplanissima, margine plano, nervis tenuissimis brevibus, cellulis *longissimis pellucidis laxioribus* angustis, apice simpliciter denticulata, acumine acutiusculo terminata, *apice plicato-torta*.

*Patria.* Insula Trinidad Antillarum, ubi monte Touche leg. Crüger.

Ab *H. subnervi* certe distat, sed sterilis tantum nobis visa. Flos masc. turgide gemmaceus, foliis late convolutaceis acuminatis subintegris enervibus pellucidis.

**28. H. affinis** C. Müll.; late et regulariter complanata, appressa, breviuscula, parce ramosa, ramis *obtusis, ubique aequaliter latis*; folia *late oblongo-ovata, rotundato-obtusa, brevissime acuminata*, planissima, densis-

sime imbricata, margine plano apice distincte denticulato, nervis brevibus tenuissimis, cellulis *elongatis* angustis pellucidis.

*Lepidopilum affine* C. Müll. Linn. XXI. p. 192.

*Patria.* Surinam prope Paramáribo: Kegel 1844. Junio sterilem legit in truncis arborum.

Ab *H. latifolia* characteribus laudatis differt.

**29. *H. membranacea*** C. Müll.; *H. Patrisiae* similima, saepe longissime repens, folia *planissima*, e basi *parum auriculate amplexicauli v. constrictâ late ovata et valde oblique acuminata*, maxime *asymmetrica*, margine *planissimo ubique vix conspicue tenuissime denticulato*, nervis *binis brevissimis tenuissimis v. obsoletis*, cellulis *maxime angustis densissimis*, in membranam veluti conflatis.

*Patria.* Insula Trinidad Antillarum, monte Tocuche, ubi modo *H. Patrisiae* ramos tenues et folia arborum habitat: Crüger 1847. sterilem legit.

c. *Folia integerrima.*

**30. *H. convallium*** C. Müll.; *angustissime complanata*, gracilis, tenuis, sordide viridis; folia caulina *symmetrica*, e basi *anguste ovato-oblonga*, longe *acuminata integerrima*, raro *parcissime obsolete denticulata*, paulisper flexuosa, *profunde concava*, angustissime longissime dense areolata, chlorophyllosa, dein pallida, nervis *brevibus tenuissimis subobsoletis*, margine erecto.

*Pterygophyllum convallium* Brid. II p. 354.

*Patria.* In convallibus Andium: Humboldt et Bonpland.

Ab *H. intermedia* haud dissimili et affinibus notis laudatis facillime distinguitur.

Incertae sedis.

**31. *H. Swartzii*** Schw. (Suppl. III. II. 2. t. 276.); *monoica*; repens appressa subpinnate ramosa; folia densa, bifariam patentia, lutescentia nitidula, *ex ovato longe acu-*

*minata falcata, enervia, concava, obsolete denticulata, cellulis elongatis, summis fere linearibus; perich. longiora integerrima; theca in ped. mediocri glabro apice curvato horizontalis v. rarius nutans, parvula, oblonga aequalis badia, calyptra glabra, basi pluries plicata crenulata; perist. externi d. dense trabeculati linea media tenui exarati, int. breviores. †.*

*Patria.* Jamaica: Swartz.

Inter *Lepidopila* pertinens?

Sectio III. **Eriopus** Brid. II. p. 339. — Cellulae densae v. laxae elongatae laeves; folia undique inserta, sparsa remota magna, haud distiche imbricata, nervis tenuibus, haud callosis, interdum nullis; caulis repens, ramis ascendentibus erectis, haud complanatis.

A *Lepidopilis* primo visu ramis erectis haud complanatis plantae refugientes.

Subsectio I. **Pterygophyllum** Brid. Plantae subcomplanatae.

a. *Folia enervia.*

**32. H. lucens** Sm. (Trans. of Linn. soc. IX. p. 275.); *dioica; latissime cespitosa ascendens parce ramosa robustissima, albide viridescens amoene lucens, folia caulina laxissime conferta latissime ovata oblongo-obtusata, angustate subligulata, planissima, enervia, integerrima, cellulis magnis laxissimis robustissimis elongate rhomboideis, basi longissimis, parietibus tenuibus albidis, utriculo primordiali granulate chlorophylloso praeditis, apice folii paucis minoribus, cellulis magnis margine inclusa; perich. lanceolato-acuminata, multo minora, cellula apiculi solitaria magna terminata, externa minuta angustissima; theca in ped. crassiusculo longiusculo glabro inclinata horizontalis turgide ovalis brevis brunnea, ore parum constricta, operc. conico recte acuminato, calyptra parum longiore albida obtecto; perist. dentes ext. longissimi maxime trabeculati linea media tenuissima exarati, int. illos aequantes, flavidi valde carinati pertusi.*

Hook. et Tayl. Musc. Brit. t. 27. — *Pterygophyllum lucens* Brid. II. p. 343. — *Leskea lucens* Dec. et Lam. Fl. Franç. II. p. 513. — Schw. Suppl. I. II. p. 164. t. 84. — *Hypnum lucens* Linn. Sp. Pl. p. 1589. — *Hypnum pennatum*, aquaticum lucens, longis latisque foliis. Dill. Musc. p. 270. t. 34. f. 10.

*β. acuminata*; folia teneriora, angustiora acuminata. An species propria?

*Patria.* In regione montana et subalpina, ad rivulos sylvestres umbrosos et scaturigines totius fere Europae passim. E Lusitania, Islandia, Suecia atque Norvegia borealibus et Lapponia desideramus. Var. *β.* in rupibus irroratis, ad catarractum Pigeon-river Falls dictum Carolinae superioris, alt. c. 4000 ped.: Sullivant (Musc. Allegh. No. 58.) sterilem legit. — *Vere.*

Species pulcherrima, habitu *H. asplenioidis*, nervis binis distinctae, humore odore *Violae odoratae* vel *Dematii Jolithi*.

**33. *H. acutifolia*** Hook. (in Schw. Suppl. II. II. 1. p. 36. t. 163.); *monoica*; *H. lucenti* simillima, sed folia anguste ovato-oblonga acuminata; caetera *H. lucentis*.

*Patria.* Nepal: Wallich.

Flos masc. turgide gemmaceus, fol. perig. minoribus ovato-acuminatis concavis, anth. et paraph. paucis. Ab *H. lucente var. β.* cellulis multo rigidioribus valde hyalinis haud chlorophyllosis distat.

b. *Folia nervosa.*

**34. *H. asplenioides*** Walker-Arn. (Disp. d. M. p. 56.); *H. lucenti* simillima, sed *amoene glauca*; folia latissime rotundate ovata, *acumine robusto longiusculo terminata*, ubique late et *laxe marginata*, *superne remote grosse dentata*, nervis *brevissimis inaequalibus subobsoletis*, cellulis amplis, rhomboidaliter hexagonis mollibus pachydermibus chlorophyllosis, basi laxioribus majoribus.

Schw. Suppl. III. II. 2. t. 276. — *Pterygophyllum asplenioides* Brid. II. p. 345.

*Patria.* Insula Bourbonis, in depressis humidis: Bory St. Vincent.

Hucusque sterilis tantum nota.

**35. H. splendidissima** Mont. (Ann. d. sc. nat. ser. II. tom. IV. p. 96. et in D'Orbigny Voy. d. l'Am. mer. Tom. VII. Crypt. p. 110.); *dioica*, *longissima*, latissime complanata, ramis remotis longiusculis ascendentibus? pallide viridibus; folia caulina latissime ovata obtusata, breviter acuminata, planissima, *marginē crenulate denticulata v. integra*, cellulis ubique longis *angustissimis densissimis et homogēo-viridibus*, *parietibus parum interruptis*, nervo uno alterove rarissime evoluto; perich. ext. late lanceolato-acuminata, intimum majus, late *cylindraceo-convolutum*, *apice subemarginato-obtusatum*, *acumine longiusculo sublato denticulato terminatum*; theca in ped. *parum exserto* apice paulisper curvato majusculè elliptica, operc. conico-acuminato recto; perist. dentes ext. angusti longissimi, illis *H. lucentis* similes; int. in membrana breviuscula longissimi angustissimi hiantes.

Schw. Suppl. IV. t. 320.

*Patria.* Insula Juan Fernandez ad oras Chilenses: Bertero. Chile: C. Gay, Cuming.

Statura *H. lucentis*, sed caulis plerumque longior, magis complanatus, nitidissimus et notis laudatis facile distinguenda species.

**36. H. apiculata** Hook. et Wils. (Lond. Journ. of bot. 1844. p. 549.); *dioica*; *tenella parvula perfecte mnioidē erecta parce dichotoma pallide viridis*, nitidiuscula; folia laxè conferta, caviuscula, *rotundata apiculata*, *limbo lato flavo*, e cellulis elongatis angustissimis densis composito, superne subdenticulato, nervis brevissimis, plerumque *obsoletis*, cellulis ampliusculis pellucidis rigidis inanibus amoene reticulatis; theca in ped. scabriusculo cernua, calyptra pilosa.

Cum ic. in Fl. Antarct. II. p. 421. t. 155.

*Patria.* Insula Eremitae ad Cap. Horn: J. D. Hooker sterilem legit. Tasmannia: Gunn fertil. lg.

*H. asplenioidi* proxima et statura *Mnio Hymenophyllo* vel *Mniadelphis* haud dissimilis.

**37. H. denticulata** Hook. et Wils. (Lond. Journ. of bot. 1844. p. 550.); *erectiuscula mnioidē subramosa*, obscure

viridis opaca; folia caulina laxè imbricata subquadrifaria oblongo-rotundata, immarginata, cellulis *teneris jungermannioideis aequaliter hexagonis* pellucidis, *marginè superne hic illic in dentes remotos grossos v. parvos productis, in angulis parietum maculis triangularibus notatis*, nervis brevissimis obsoletis; theca pendula ovata, operculo rostrato, calyptra glabra.

Cum tab. in Fl. Antarct. I. p. 145. t. IXII.

*β. latifolia*; *robustior*, folia *latissima, minus dentata, cellulis majoribus saepe apice folii in fila productis*, nervo lato longiore, apice furcato, theca in ped. crasso breviusculo. An species propria?

*Patria.* Insulae Eremitae et Falklandi; var. *β.* in insulis Aucklandi: J. D. Hooker.

Ab *H. anomala* foliis rotundatis haud spathulato-ovatis primo momento differt. Typum hujus speciei sterilem tantum vidimus.

38. *H. anomala* C. Müll.; *H. denticulatae* var. *β.* simillima, procera tomentosa, ramis tenuibus mnioideis, ex apice caulis rosulate foliosi saepe egredientibus, sordide viridibus; folia remota patula, paullo tortilia, *e basi breviter spathulatâ late ovata obtusa*, obliqua inaequalia, grosse et remote serrata, nervo altero lato ad medium producto, altero obsoleto, cellulis magnis, *marginè in dentes productis, in angulis parietum maculis angularibus notatis veluti ductibus intercellularibus instructis, maxime pachydermibus.*

*Racopilum anomalum* Schw. Suppl. III. II. 2. t. 278.

*Patria.* In Americae borealis ora occidentali: Menzies.

39. *H. obscura* Mont. (Ann. d. sc. nat. 1844. 4. p. 93.); *monoica?* erecta brevis subsimplex; folia quadrifariam imbricata, lateralia patenti-erecta spathulata, dorsalia erectiuscula, omnia apice grosse serrata, nervo crasso subbifurco ante apicem evanido. †.

*Patria.* Chile australior.

Ex obs. auctoris *H. denticulatae* H. et W. areolatione foliorum proxima, sed forma folii distincta.

Subsectio II. **Eriopus** Brid. Plantae sparsifoliae.

40. **H. cristata** Walker - Arnott (Disp. d. M. p. 56.); *dioica*; ascendens flexuosa *crassa opaca, haud nitida, sordide viridis, subglauca*, ramis elongatis parce praedita; folia caulina dense conferta crispata, madefacta patentia planiuscula, *carnosa, latissime rotundato-ovata, brevissime acuminata*, ubique late et *incrassate* marginata, superne *inaequaliter erose vel obtuse dentata*, nervis *latis valde perspicuis* infra medium evanidis, cellulis *maxime amplis subcirculari-hexagonis, haud rhomboidalibus, rigidis, pachydermibus*, pellucidis, utriculo primordiali tenuissimo praeditis, basi elongatis; perich. *latissime convolutacea, apice dentiformi-sinuato-emarginata, acumine longissimo angusto flexuoso integro terminata*, nervia, immarginata, cellulis elongatis laxissimis mollibus, externa multo minora, haud emarginata; theca in ped. medio longissime ciliato valde arcuato minute ovalis, brunnea, operculo conico recte subulato, calyptra magna *crassa apice truncata, papillis maxime latis brevibus rotundato-obtusis* apice densissime obtecta, basi ciliis crassis longis flexuosis; perist. *H. remotifoliae*.

*Chaetephora (Eriopus) cristata* Brid. II. p. 339. — *Leskea cristata* Hdw. Sp. Musc. p. 211. t. 49.

*Patria.* Insulae Australes: Banks.

E pulcherrimis et distinctissimis, notis explicatis ab *H. remotifolia* longe recedens et statura *Mniadelphii microcarpi*.

41. **H. polytrichoides** Spreng. (Syst. Veget. IV. p. 197.); *hermaphrodita*; caulis repens, ramis ascendentibus elongatis rigidis, ramulis inaequalibus longiusculis tenuibus, laete viridis; folia laxissime conferta, remota, contorta, madefacta maxime patentia rigida stricta, e basi *asymmetricâ latissime ovata, acumine robusto longo latiusculo plicato-torto terminata, inaequaliter plana*, margine inferne obsolete denticulato, *superne grosse serrato*,

nervis latis ad medium tenuiter evanidis, cellulis majusculis rhomboidalibus angustiusculis, utriculo primordiali valde repletis; perich. minora teneriora, *e basi latiuscule convolutacea longe anguste acuminata enervia subintegra*; theca in ped. *brevi parum scabro flexuoso erecta cylindraceo-oblonga, ore constricta*, operculo conico subulato recto, calyptra pilis latis flexuosis squamose pilosissima, basi late multifida; perist. dentes ext. longissimi, margine valde eroso-articulati opaci fusciduli, interni in membrana brevissima carinata externos aequantes carinati haud perforati dense articulati subrugulosi pallidiores.

*Daltonia polytrichoides* Arn. Disp. p. 55. — *Lepidopilum polytrichoides* Brid. II. p. 269. — *Pilotrichum polytrichoides* ej. Mant. Musc. p. 140. — *Neckera polytrichoides* Schw. Suppl. III. I. 2. t. 231. — *Orthotrichum polytrichoides* Brid. Musc. Rec. II. II. p. 31. — *Hypnum polytrichoides* Hdw. Sp. Musc. p. 244. t. 61. — *Polla binervis* Brid. I. p. 856! — *Hookeria Perrini* Spr. in Neu. Entdeck. III. p. 4? — *Chaetephora Perrini* Brid. II. p. 336?

*Patria.* Jamaica, Hispaniola: Swartz; Martinique: Sieber; Trinidad, monte Tocuche: Crüger.

**42. H. flexifolia** C. Müll.; *dioica?* repens, ramis ascendentibus breviusculis teneris ramulosis rigidis substrictis; folia caulina sublaxe conferta, *longiuscula anguste oblongo-acuminata, pluries spiraliter contorta*, supra basin denticulata, apice remotiuscule dentata, nervis tenuibus brevibus, cellulis brevibus perangustis densis ob utriculum primordiale maxime evolutum veluti incrassatis, hic illic pellucidis; perich. *elongate lanceolato-acuminata angusta enervia*, plus minus complicata, apice denticulata, subcontorta, intima minuta angustissima; theca in pedunculo *breviter exserto glabro cylindraceo-oblonga recta*, senectute inclinata, *minuta*; perist. dentes externi et interni angusti pallidi aequales.

*Pilotrichum biductulosum* P. B. Prodr. p. 82. et Brid. II. p. 266. seu *Neckera biductulosa* Schw. Suppl. I. II. p. 155, e spec. auth. forma foliis minus contortis videtur!

*Patria.* Insula Trinidad Antillarum minorum, Arima 9. Maj. 1847, cum fruct. vetustis; monte Tocuche 14. Mart. sterilem legit Crüger.



Ab *H. polytrichoide* notis cursive impressis longe differt. Folia plantae vetustae minus contorta, latiora et cellulis utriculo primordiali carentibus pellucida.

**43. H. Surinamensis** C. Müll.; *H. polytrichoidi* proxima, sed humilior; folia *symmetrica subrotundate ovata, acumine brevissimo plicato terminata*, latissima, supra basin simpliciter, superne grosse *dentata*, cellulis minoribus; perich. *anguste lanceolato-acuminata remote dentata caviuscula*.

*Lepidopilum Surinamense* C. Müll. Linn. XXI. p. 193.

*Patria.* In sylvis primaevis prope Mariepaston Surinami, ad truncos arborum Majo 1846. sterilem legit Kegel.

**44. H. remotifolia** C. Müll.; caulis ascendens ramosus, *mnioideo-foliosus*, flavide virens, dein fuscescens *nitida*; folia caulina laxe conferta, *firma*, late *ovato-acuminata*, acumine lato plicato brevi, ubique latiuscule *sublaxe* marginata, *supra medium spinoso-dentata*, nervis *brevissimis obsoletis*, cellulis *ampliusculis leptodermibus*, basi elongatis laxissimis, pellucidis; perich. *externa angustissime lanceolata longe tenuiter acuminata*, *interna multo majora cylindraceo-convoluta obtusata brevissime acuminata, integra enervia*; theca in ped. medio flexuoso, apice incrassato arcuato, papillis longe spinosis hispidissimo horizontalis parva ovalis, brunnea, operculo hemisphaerico conico recte subulato; calyptra magna, pilis superne erectis *filiformibus longiusculis*, basi longe et *filiformi-fimbriata*; perist. dentes ext. linea longitudinali latiuscula exarati, int. aequales tenues, in membrana altiuscula positi.

*Eriopus remotifolius* C. Müll. Bot. Zeit. 1847. p. 828. — *Distichophyllum cristatum* Dz. et Molkb. Musc. Archip. Ind. p. 104. t. 35. B. — *Hookeria (Mniadelphus) trichopus* C. Müll. in litt. — *H. cristata* Hsch. et Reinw. Nov. Act. XIV. II. Suppl. p. 718. tab. 40. — *Mnium subenerve* Schw. Suppl. I. II. p. 138. t. 79?

*Patria.* Java, ubi primus legit Reinwardt, monte Gédé supra terram humosam et lapides: Zippelius,

Korthals; Zollinger Coll. No. 394. z.; Sumatra, ubi mense Januarii collegit Korthals.

Cum *H. cristata* notis laudatis nunquam commutari potest.

Sectio IV. **Hypnella.** Cellulae densae elongatae laeves v. papillosae; folia *undique inserta, dense imbricata*, nervis callosis v. tenuibus; caulis compressus v. teretiusculus, *haud plano-complanatus*.

Ab *Eriopodibus* caule magis tereti hypnoideo, foliis plerumque angustis minutis dense imbricato plantae distantes.

Subsectio I. **Omaliadelphus.** Caulis robustus plus minus compressus, foliis dense appressis rectis.

α. Folia dentata v. serrata.

45. **H. Crügeriana** Sonder (in litt. ad Crüger); *dioica*; late cespitosa, vage ramosa, inaequaliter pinnata, subcompressa, robusta pallide viridis; folia caulina dense conferta subcrispula, *late ovato-lanceolata breviuscula, obtuse acuminata*, subcymbiformi-concava, *marginē superne dentibus simplicibus, duplicatis v. triplicatis valde serrata*, nervis dorso valde serratis ante apicem forma *spinae acutae* abruptis, cellulis angustis longiusculis densiusculis pellucidis laevibus, *basi majoribus laxioribus*; perich. basi latiora, externa late ligulato-ovata subintegra brevia, interna *longe acuminata*, caeterum caulinis similia, sed omnia nervis obsoletis; theca in ped. *elongato* laevi apice arcuato horizontalis turgide oblonga, pallide fusca, operc. conico subulato, basi rufo, recto, calyptra multifida glabra; perist. dentes ext. in subulam longissimam tenuissimam maxime scabram producti, latiuscule exarati, interni breviores latiusculi.

β. *dimorpha*; folia ejusdem rami perfecte ligulata obtusata integra v. denticulata v. acuminata duplicate serrata, omnia superne incrassate lineari-areolata fuscidula.

*Patria.* Insula Trinidad Antillarum, monte Tamanao, 1847. 10. Aug. Var. β. loco „los Cacaos” 1845. Febr. fructibus vetustis: Crüger.

Ab *H. gigantea* simili characteribus explicatis longe refugit. Statura *H. undatae*.

46. **H. undata** Hmp. (Linn. XX. p. 85.); late cespitosa procumbens procera robusta depressa, ramis elongatis parce ramulosis latiusculis obtusiusculis pallide viridibus; folia caulina dense conferta *undulato-crispata*, e basi *caviuscula late ovatâ longe latiuscule et flexuose acuminata*, superne maxime transverse undulata, immarginata, superne tenuiter remotiuscule dentata, cellulis elongatis pellucidis laevissimis, basi laxioribus, nervis tenuibus ultra medium productis, evanidis vix abruptis; perich. reflexa, longissime acuminata, basi *latissima*, nervis obsoletis *valde divergentibus remotis*; theca in ped. longissimo laevi cylindraceo-oblonga subnutans majuscula, operc. cupulato longe subulato recto, calyptra apice scaberula; perist. magnum latum, dentes ext. linea longitudinali lata notati, intense rufi, interni flavidi valde carinati vix perforati.

*Pterygophyllum undatum* Brid. II. p. 353. — *Hypnum undatum* P. B. Prodr. p. 72. — *Leskea undata* Hdw. Sp. Musc. p. 214. t. 52.

*Patria.* Jamaica: Swartz. Venezuela, in montibus nivosis prov. Meridae et Caracas: Moritz.

Foliis ruguloso-undulatis distinctissima species, statura spectabili.

47. **H. gigantea** Hsch. (Fl. Bras. p. 67.); *dioica?* repens irregulariter pinnata crassiuscula firma vix compressa, densissime foliosa pallide viridis; folia basi ramulorum appressa, superne assurgentia, *longiuscule oblongo-ligulata obtusiuscula v. obtusiuscule acuminata*, superne *irregulariter plicata undulata*, margine erecto ubique *denticulata*, pallide membranacea, ubique *angustissime densissime* lineari-areolata, *laevia*, nervis basis remotis, longis, ante apicem forma spinae indistinctae abruptis, dorso apice scabris; perich. ovato-acuminata, obsoletinervia, subserrulata, e cellulis subserpentibus areolata; theca in ped. semunciali apice parum curvato crasso laevi nutans

oblongo-subclavata; perist. externi dentes linea media angusta diaphana notati, interni solidi subulato-capillares carinati.

*Patria.* Brasilia, in sylvis prov. Paraënsis, et ad ripas fl. Amazonum: Martius.

Sterilem solam vidimus.

48. **H. pilifera** Hook. et Wils. (Lond. Journ. of bot. 1844. p. 160.); vage ramosa, breviter et subflexuose ramulosa, pallide viridis, vix compressa, crassior; folia sicca et madefacta dense conferta, *longiuscule oblonga*, acumine *basi latiusculo*, superne tenuissimo, flexuoso serrulato *longissimo* terminata subpilifera, *flaccida planiuscula*, margine superne tenuissime denticulato *erecto*, tenerrime membranacea, cellulis angustissimis ob papillas punctulato-scabris, *basi laxioribus pellucidis longis*, nervis ante apicem folii abruptis, dorso *apicis dentatis*, pallidis, interdum fuscidulis; perich. longius acuminata; theca in ped. elongato laevi subovata *cernua*, calyptra laevi.

*Patria.* Brasilia, Serra dos Orgaôs: Gardner 1837. No. 89.

Characteribus explicatis ab *H. filiformi* longe recedit et *H. pallescenti* statura magis affinis.

β. Folia integerrima.

49. **H. pendula** Hook. (Musc. Exot. t. 53.); *dioica?* decumbens valde fasciculate irregulariter ramosa robusta latiuscule complanata virescens, dein rufescens, depressa; veluti distincte bifaria; folia caulina conferta, superiora appressa, *latiuscule oblongo-acuminata obtusiuscule concava*, *integerrima*, rarius apice minute erosa, *valde pallida*, *nervis dimidio folio paullum longioribus* albidis, dein flavescens, tenuissimis, cellulis *minutis densis oblongis*, *chlorophyllo punctatis*; fol. perich. *ex ovata basi angustissime et longissime acuminata*, *cellulis linearibus*, *nervis nullis*; theca in ped. elongato crasso laevi pendula, magna turgide oblonga fusca, operc. conico subulato dimidio breviori, calyptra multotis fissa, paraphysibus te-

nuissimis paucis adpersa; peristomii dentes ext. lati, linea latiuscula perpendiculari exarati, int. latiusculi vix perforati externos aequantes.

Schwägr. Suppl. IV. t. 320. — *Chaetephora pendula* Brid. II. p. 338.

*Patria.* In jugis Andium, regione temperata, truncicola: Humboldt et Bonpland.

Statura *H. Crügerianae*, sed characteribus explicatis inter congeneres facillime cognoscenda.

50. **H. pallescens** Hook. (Musc. Exot. t. 38.); vage ramosa compressa, ramis acutis *brevibus angustiusculis*; folia undique imbricata albida *ovato-oblonga obtusa* integerrima concava, *dorso apicem versus minute papillosa*, membranacea vix succulenta, minute reticulata, nervis ad medium productis; perich. enervia; theca in ped. longo flexuoso laevi nutans *exigua obovata, medium versus contracta*, calyptra laevi profunde pluries fissa; perist. dentes ext. angusti, interni breviores angusti. †.

*Pterygophyllum pallescens* Brid. II. p. 351.

*Patria.* Ad ripam fluminis Orinoco prope Esmeraldam, locis opacis: Humboldt et Bonpland.

E foliis *H. pendulae* similis, sed habitu et notis curvis impressis longe diversa.

Subsectio II. **Euhypnella.** Caulis tenellus anguste complanatus vel teres, foliis dense appressis rectis.

a. *Calyptra laciniata.*

51. **H. flavescens** Hook. et Grev. (Brewst. Edinb. Journ. of sc. II. p. 296. t. 5. f. 1.); *monoica*; procumbens *simpliciter pinnata, ramis brevibus*, subcompressa, sordide lutescens; folia caulina undique laxè imbricata, *ovato-acuminata acuta, concava ideoque supra basin veluti contracta*, membranacea, pallide viridia, mox lutescentia, *denticulata, enervia*, cellulis linearibus angustissimis, densissimis, seriatim *punctulatis*; perich. ex ovato angustiore basi longe acuminata; theca in ped. elongato rigido inclinata horizontalis, *e collo longo scaberulo anguste cylin-*

*draceo-oblonga*, calyptra basi multifida; perist. d. ext. valde trabeculati, linea media angusta exarati, interni aequales profunde fissi, in membrana brevissima positi. †.

Schwägr. Suppl. III. II. 2. t. 277.

*Patria.* Insula St. Vincent.

Folia perig. late ovata acuminata. *Hypno plano* simillima, sed calyptra (revera mitraeformi?) generice differre videtur.

**52. H. filiformis** Hook. (in Spreng. Syst. Veget. IV. p. 197.); *monoica?* procumbens *gracillima*, breviter et flexuose ramulosa *fuscata*, vix compressa; folia sicca et madefacta dense conferta, *anguste cochleariformi-elliptica*, in acumen longissimum flexuosum tenue denticulatum producta, tenuiter et pallide membranacea, angustissime prosenchymatice et tenuissime punctate areolata, margine apice paulisper involutaceo, nervis tenuibus pallidis indistincte spinaeformi - abruptis; perich. *superne planiuscula dentata*, longissime et maxime flexuosa, distinctius irregulariter denticulata; theca in ped. longissimo *superne scabro* purpureo gracili *cylindraceo-oblonga minuta verrucosa*, operculo conico oblique rostellato; perist. parvi dentes ext. angusti, int. pallidi breves laeves.

*Callicosta filiformis* C. Müll. Linn. XXI. p. 189. — *Hook. filiformis* Spreng. Hb.

*Patria.* Guadeloupe et insula St. Vincent: Hb. Hook. et Taylor.

**53. H. Guadalupensis** C. Müll.; *monoica*; *H. filiformi* simillima, sed folia *angustissime oblonga*, longe et *sensim latius acuminata*, *haud cochleariformi-concava*, sed paullo *concava*, apice *nodosiuscule subduplicate serrulata*, nervis *tenuissimis*, saepe *subobsoletis*, spinae forma distinctae longe ante acumen abruptis, dorso parce denticulatis, cellulis *laevissimis*, *haud punctulatis*, pallidis, margine *erecto*; theca in ped. *breviusculo laevi* minute oblonga conico-operculata.

*H. repens* Hook. et Grev. in Brewster Edinb. Journ. of sc. II. p. 231. t. 5. — Schwägr. Suppl. III. II. 1. t. 274. — *Hypnum Guadalupense* Brid. II. p. 395, quo explicantes usi sumus.

*Patria.* Guadeloupe: Hb. Bridel. Insula St. Vincent: Hb. Hook. et Tayl.

E serratura duplicata *H. falcatae* haud dissimilis.

**54. *H. leptorrhyncha*** Hook. et Grev. (in Brewster Edinb. Journ. of sc. II. p. 228. t. 5.); *dioica*; *H. filiformi* similis, sed viridior, folia *lato-lanceolata acuminata, stricta*, apice subtiliter erosa, concava, *marginē basin versus subinflexo, scabra*, tenuiter membranacea albida, angustissime densissime incrassate lineari-areolata, nervis *crassis* ante acumen abruptis; perich. majora longiora; theca in ped. *semunciali* scaberulo erectiuscula oblonga macrostoma *laevis* badia, operc. longitudine aequali subulato, rectiusculo, calyptra laevi. †.

Schwägr. Suppl. III. II. 1. t. 274.

*Patria.* Insula St. Vincentii.

b. *Calyptra fimbriata.*

*Holoblepharum* Dz. et M.

**55. *H. elongata*** Dz. et Molkb. (Ann. d. sc. nat. 1844. II. p. 305.); *dioica*; caulis longissime repens, ramis erectis *subteretibus turgidis obtusis brevibus simplicibus*, dense foliosis, nitentibus, flavo-viridibus; folia caulina elliptice oblonga, valde concava plicata, acumine lato pluries undulato-constricto, margine hic illic reflexo superne denticulato, nervis tenuissimis brevibus, cellulis angustissimis densissimis laevissimis; perich. oblongo-lanceolata longiuscule acuminata, superne undulato-crispata, plicata; theca in ped. breviusculo superne scabro suberecta, oblongo-cylindracea, operc. conico recte subulato, calyptra et perist. *H. leptopomatis*.

*Chaetomitrium elongatum* Dz. et M. Musc. Archip. Ind. p. 119. t. 38, folii reticulatione multo laxiore delineata.

*Patria.* Borneo, in arboribus: Zippelius.

Characteribus paucis cursive impressis species jam distinctissima, solitaria.

**56. *H. Philippinensis*** Mont. (Lond. Journ. of bot. p. 10.); *dioica*; *H. elongatae* simillima, prostrata, ramis

brevibus subsimplicibus *compressis*, sordide viridibus; folia caulina *anguste oblonga*, valde concava, acumine brevi latiusculo acutato *minus constricto* terminata, margine *e basi usque ad apicem tenuiter reflexo*, *ubique denticulato*, nervis brevissimis tenuibus, cellulis *papillosis*; folia perichaetialia (perfecte ciliata), pedunculus et calyptra *H. leptopomatis*; theca *cylindrica elongata*, *basi attenuata*, lineam longitudine superans, inclinata, operculo et peristomio *H. orthorrhynchae*.

*Patria.* Ad cortices arborum insularum Philippinensium: Cuming Coll. No. 2208; Java: Zollinger Coll. No. 115!

*H. elongatam* cum *H. orthorrhyncha* atque *leptopomate* arctius conjungens species.

57. ***H. orthorrhyncha*** Dz. et Molkb. (Ann. d. sc. nat. 1844. II. p. 305.); *dioica*; repens elongata subbipinnata intricata filiformis ramosissima prostrata, sordide flavescens, vix compressa; folia caulina dense conferta patentia, minuta, *anguste ovato-oblonga*, *apice constricta*, *undulato-crispa*, *acuminata*, profunde concava, paullo plicata, *supra basin serrulata*, *dorso distincte papillosa*, nervis *tenuissimis brevibus*, cellulis angustissimis densissimis, in membranam pallidam veluti conflatis; perich. angustius acuminata, subciliate serrulata; theca in ped. breviusculo apice inclinato, supra basin *setoso-hispido* incrassato scabro minute obovata, aperta urceolata, inclinata, operc. conico subulato obliquo, calyptra angusta pallida, *basi flexuose fimbriata*, *supra basin ciliate hispida*; perist. dentes ext. late lanceolati subulati, linea media tenui exarati, int. aequales subpunctulati, vix pertusi.

*Holoblepharum orthorrhynchum* Dz. et Molkb. Musc. Archip. Ind. p. 114. t. 37, quo loco folii reticulatio multo laxior delineata est.

*Patria.* Java, in ramis *Anonae subcordatae* ad pedem montis Palusarie, in prov. Bantam: Blume, Zippelius. Sumatra: Korthals.

Ab *H. filiformi* proxima characteribus laudatis longe refugit.



58. **H. leptopoma** C. Müll.; *dioica*; *H. orthorrhynchae* simillima, bis terve ramosissima; folia *horizontaliter* patentia, minutissima, *e basi subcordatâ ovata acuta*, concava, sicca plicata, margine erecto superne serrulato; perich. in acumen subciliate serrulatum flexuosum producta, angustiora, valde plicata; pedunculus et calyptra *H. orthorrhynchae*, theca *oblongo-cylindrica*, dein urceolata, operculo conico longe et oblique rostrato; perist. dentes ext. linea media latiore exarati, interni laeves, *ciliorum rudimentis interjectis*. †.

*Holoblepharum leptopoma* Dz. et Molkb. Musc. Archip. Ind. p. 113. t. 36. — *Hypnum leptopoma* Schw. Suppl. IV. t. 323.

*Patria.* Java, in monte Patoeha: Korthals; Sumatra, in arborum truncis: Korthals.

Folia auctores enervia dicunt, an recte, dubii sumus; illa *H. orthorrhynchae* Dz. et M. false quoque enervia descripserunt.

Subsectio III. **Cupressinadelphus.** Caulis tenellus compressus, foliis dense appressis falcato-homomallis.

59. **H. cupressiformis** C. Müll.; latissime cespitosa procumbens valde ramosa, sordide viridis, gracillima compressa; folia caulina cupressiformi-homomalla, dense conferta, *oblongo-lanceolata* falcata, acumine *subtenui* flexuoso terminata, *superne denticulata*, *striatula*, tenuissime membranacea pallida, angustissime densissime lineari-areolata, *punctulato-scabra*, nervis basi remotis sublaevibus longis, forma spinae tenuissimae indistinctae abruptis; perich. lanceolata, longissime flexuose acuminata, irregulariter tenuiter valde dentata obsoletinervia; theca in ped. *elongato scabro cylindraceo-oblonga*, horizontalis, operculo conico longe subulato recto, calyptra superne scaberula; perist. dentes ext. linea longitudinali angusta exarati, int. aequales solidi angusti constrictè articulati.

*Patria.* Insula Trinidad Antillarum, ubi monte Tocuche copiose legit Crüger 1847. mens. Decbr., Jan. et Mart.

Ab *H. falcata* notis cursive impressis facile distinguitur; statura *Hypni cupressiformis*.

60. **H. falcata** Hook. (Musc. Exot. t. 54.); *monoica*; *H. cupressiformi* simillima, sed flavior, folia *elongate lanceolato-acuminata falcata*, v. *acumine subtorto sensim dilatato, duplicato-serrulato, inferne simpliciter denticulata, laevia*, nervis *ubique dorso serrulatis*; perich. *longissime acuminata*, caulinis *similia*; theca in ped. *laevi cylindraceo-oblonga horizontalis*, dein *nutans ore constricta*, operculo *conico subulato*, calyptra *scabriuscula*; perist. *dentes interni latiores haud constrictae articulati, ciliolis binis rudimentariis interpositis*.

Schwägr. Suppl. IV. t. 319. — *Pterygophyllum falcatum* Brid. II. p. 353.

*Patria.* In convallibus Andium Novae Granadae, inter Almaguer et Pasto, altitud. 1200—1300 hexapodum: Humboldt et Bonpland. Venezuela, Faji: Moritz. Guadeloupe: Bertero, pastor Forsström.

Sectio V. **Callicostella.** Cellulae foliorum *parvae magis aequales v. incrassatae rotundatae laeves v. papillosae*; folia *ligulate oblonga immarginata*, nervis *callosis*; caulis *decumbens compressus*.

Areolatione et forma foliorum magis ad *Eupilotricha Pilotrichi*, quam ad sectiones praecedentes plantae accedentes.

a. *Folia ubique incrassate rotundato-areolata.*

61. **H. callicostata** C. Müll.; *procera robusta*, ramis *elongatis apice curvatis irregulariter pinnate et inaequaliter ramulosis sordide viridibus, vix compressis crassiusculis*; folia *laxe conferta, siccitate crispula, e basi dilatata elongate perfecte oblongo-ligulata obtusa*, interdum apice paulisper emarginata, *planiuscula*, margine erecto integerrimo, nervis *crassis, ante summum apicem forma spinae obtusae saepe ultra apicem folii productae abruptis glabris*, cellulis *ubique minutissimis rotundatis obscuris*.

*Patria.* Insula Antillarum Trinidad, ubi monte Tucuche sterilem legit Crüger 1847. Januar. 20.

Statura *H. undatae* et pulcherrima species, structura *Eupilotrichi* folii.

**62. *H. fissidentoides*** Hook. et Wils. (in Hook. Ic. Pl. Rar. t. 739.); depressa pinnatim ramosa, habitu *fissidentoideo-complanato*, *rigidiuscula*, ramulis brevibus pinnaeformibus; folia caulina conferta subdisticha, *rigidula nitentia laete viridia*, *sicca stricta*, e basi concavâ *lanceolato-ligulata angusta acuta v. brevissime acuminata*, *apice subserrata*, *superne plana*, nervis ad apicem fere productis, cellulis oblongis minimis; perich. caulinis similia, e basi ovata ligulata acuta serrata binervia; theca in ped. ascendente apice arcuato semiunciali laevi ovata parvula horizontalis, operc. subaequante conico subulato, calyptra glabra basi multifida. †.

*Patria.* Jamaica, in sylvis interioribus *tot* Manchester: W. Purdie, Dec. 1843.

Ab *H. nitente* Hsch. ex animadv. auctorum differt: foliis apice haud recurvis, minus serratis et habitu distincte *fissidentoideo*.

b. *Folia basi pellucidius, superne obscure areolata.*

α. *Pedunculus glaber.*

**63. *H. microcarpa*** Hsch. (Fl. Bras. I. p. 62.); *monoica*; longe repens anguste compressa breviter ramosa, pallide viridis, inferne rufescens; folia caulina e basi late ovata caviusculâ ligulato-oblonga obtusa, *breviter acuminata*, superne tenuissime denticulata, planiuscula, nervis ante apicem forma spinae obtusiusculae abruptis, valde divergentibus, crassiusculis flavidulis *glabris*, cellulis ubique minutis, *basi pellucidioribus*, superne obscuris viridibus subglabris; perich. magis acuminata; theca in ped. longiusculo *laevi* horizontalis oblonga, ore constricta, minuta, operculo conico subulato recto, calyptra longe multifida glabriuscula; perist. dentes ext. in subulam tenuissimam scaberrimam producti, latiuscule exarati, int. aequales imperforati.

*H. obliqua* Hmp. in litt. — *H. Hornschuchiana* Hmp. Ic. Musc. in contextu *H. Pöppigianae*. — *Pilotrichum obtusifolium* Brid. II. p. 860!

*Patria.* Brasilia, prov. Minarum Generalium et ad Fanado in Minis novis: Martius. Prope Rio Janeiro: Beske. Prov. St. Catharinae: Blumenau.

Pedunculum laevem tantum vidimus, haud superne scabriusculum, ut dicit auctor. Ab *H. Weigeltiana* notis cursive impressis differt.

64. *H. depressa* Hook. et Tayl. (Musc. Brit. p. 90.); *monoica*; *H. microcarpae* similis, sed differt: foliis jam e medio valde *eroso-denticulatis*, *magis papillosis*, *nervis tenuioribus*, *dorso et apice abrupto valde glomerate dentatis*; perich. caulinis multo angustiora, caeterum similia; theca in pedunculo breviori, calyptra *distincte scabra*.

*H. affinis* W. Arn. Trans. of Werner. soc. V. et Disp. d. Mouss. p. 56. — *Pterygophyllum depressum* Brid. II. p. 352. — *Leskea depressa* Hdw. Sp. Musc. p. 215. t. 53. — *Hypnum depressum* Sw. Prodr. Fl. Ind. Occ. p. 141. — *H. Guadalupense* Spreng. in litt. ad *Balbis*, fide Brid. II. p. 351.

*Patria.* Jamaica, in montibus, ad cortices arborum: Swartz. Guadeloupe et Portorico: Bertero. Hispaniola: Poiteau, Bertero.

65. *H. Merkelii* Hsch. (Fl. Bras. I. p. 62.); *hermaphrodita*; longe repens depressa laxifolia, irregulariter pinnata, flaccida, amoene virescens *planissima*; folia caulina latiuscule oblongo-ligulata, plerumque oblique obtusata, brevissime acuminata, superne *eroso-denticulata*, basi subasymmetrica, nervis valde divergentibus, dorso parce scabris, spinae forma distinctae ante apicem abruptis, cellulis ubique parvis pellucidis, superne plerumque *incrassatis*, *haud opacis*, *laevibus*; folia paginae inferioris caulis plerumque e basi lata lanceolato-acuminata multo tenerius et pellucidius areolata; perich. his similia, sed multo minora, intima obsoletinervia; theca in ped. breviusculo ascendente *laevi* horizontalis minute ova-

lis, ore constricta, operculo conico subulato, calyptra latiuscule multifida, scabriuscula.

*Patria.* Brasilia, in uliginosis ad terram prope Sebastianopolin, Julio et Aug. c. fr. maturis: Merkel, Gardner No. 84.

Ab omnibus affinibus (*H. scabriseta*, *scabriuscula*, *pallida*, *longipedunculata*, *depressa* et *microcarpa*) foliis laevibus primo adspectu distinguitur. Ab *H. Martiana* inflorescentia et reticulatione multo teneriore primo intuitu distat.

**66. *H. Martiana* Hsch.** (Fl. Bras. I. p. 63. t. 3.); *monoica*; anguste complanata pusilla viridis; folia caulina laxe conferta, *asymmetrica*, late ovata subligulata rotundato-obtusata v. breviter acuminata, parum et diverse concava, immarginata, nervis *crassis ante apicem obtuse abruptis*, cellulis *parvis pachydermibus* pellucidis, parietibus valde viridibus, *marginibus denticulos efformantibus*, mollibus; perich. angustiora ligulata v. acuminata; theca in ped. laevi breviusculo ovata subapophysata horizontalis, deoperculata nutans, ore constricta, operc. recte subulato, calyptra angusta basi fissa apice scabriuscula.

*Patria.* In inundatis ad flumen S. Francisci prope Joazeiro prov. Bahiensis: Martius Aprili.

Statura *H. albicantis* et affinium. Flos masc. 5—6-phyllus, fol. perig. internis angustioribus ligulatis v. acuminatis. Ico folii caulini tabulae tertiae operis l. c. figuram folii male demonstrat.

**67. *H. papillata* Mont.** (Ann. d. sc. nat. 1845. 4. p. 93.); *hermaphrodita*; late cespitosa sordide flavide viridis fuscescens, vage pinnatim ramosa; folia caulina *anguste oblongo-ligulata*, *distincte acuminata*, apice marginis *subduplicate tenuiter dentata*, veluti erosa, dorso *valde papillosa*, *scaberrima*, *fusciscentia*, nervis ante apicem spinae forma abruptis, dorso scaberulis fusciscentibus crassiusculis, cellulis minutis, supra basin folii pellucidioribus obscuris; folia paginae caulis appressi inferioris ubique fere pellucida, longius acuminata; perich. e basi

latiore teneriore lanceolato-acuminata; theca in ped. longiusculo *glabro* parvula obovalis, collo instructa, horizontalis, vix cernua *brunnescens*, operculo conico subulato recto pallidiori, calyptra profunde multifida, *apice scaberrima*, *brunnea firma*; perist. angustum, interni dentes subrugulosi, paullo perforati.

*Patria.* Java, prov. Buitenzorg: Hb. Miquel.

Colore fuscescente v. brunnescente partium omnium primo visu discernibilis et statura *H. depressae* v. *pallidae*.

β. Pedunculus scaber.

68. **H. scabriseta** Hook. (Musc. Exot. t. 52.); *dioica?* repens, ramis procumbentibus vage pinnatim ramosa, pallide viridis, rigida, compressa, angusta, parvula; folia caulina laxa conferta, sicca subcrispula, e basi *latiusculâ oblongo-ligulata obtusa brevissime acuminata*, integra, *subplana*, nervis ante apicem forma spinae angustae abruptis, dorso sublamellosis, cellulis *ubique minutissimis* rotundatis obscure viridibus *subglabris*; perich. acuminate ligulate longiora angustiora; theca in ped. longiusculo flexuoso *ciliato-hispido* apice in collum incrassato horizontalis turgide ovalis, ore constricta, operc. conico subulato recto, calyptra longe anguste multifida apice scabra.

*Lepidopilum binerve* Brid. II. p. 269.

*Patria.* In crepidinibus Andium inferiorum prope Caripe in regione temperata, altitud. 480 hexapod., ubi in scopulosis irriguis leg. Humboldt et Bonpland.

Ab *Hook. pallida* foliis basi dilatatis, medio paulisper excavatis, minutissime areolatis, integris et pedunculo ciliato-hispido facile distinguitur.

69. **H. pallida** Hsch. (Fl. Bras. I. p. 64.); *hermaphrodita*; *H. scabrisetae* simillima, sed differt: foliis superne *eroso-denticulatis robustius et saepe praesertim basi sublaxe reticulatis*, nervis dorso *scaberrimis*, pedunculo *scaberulo*, haud ciliato-hispido et theca *minuta*, perist. minuto angusto, operculo *breviori*.

*H. scabriseta* Schwägr. Suppl. III. II. 1. t. 275! — *H. Weigeltiana* C. Müll. in Linn. XXI. p. 190.

*Patria.* Surinam: Weigelt et Kegel in truncis *Tamarindi Indicae* leg. Junio 1844. Trinidad, ubi copiose mens. Octobris leg. Crüger. Brasilia, ad flum. Amazonum, in Minis generalibus ad Villam Riccam: Martius, Tijuca prov. Rio Janeiro: Beyrich, Olfers, m. Octobris. Cortices arborum habitans.

Flos minutus, fol. perig. late lanceolatis, basi tenerimis, vix obsoletinervibus; anth. paucis, paraphysibus copiosis hyalinis et archegoniis solitariis v. paucis.

**70. *H. scabriuscula* C. Müll.** (Linn. XXI. p. 191.); *hermaphrodita*; *H. pallidae* simillima, sed folia brevia, oblongo-ligulata obtusa, vix acuminata, *subcircularia* v. *elliptica*, *marginē haud erosa*, sed *papillose scabra*, basi paullo cava, areolis minutis ubique, basi infima exclusa, opacis v. paginae caulis appressi inferioris pellucidis, nervis ante apicem forma spinae brevis abruptis, dorso paulisper scabris; perich. anguste ligulata; theca in ped. breviusculo scabro minute oblonga horizontalis v. nutans, calyptra apice scabra; perist. angustum, interni dentes ciliis solitariis rudimentariis.

*Patria.* Chile: Pöppig.

**71. *H. longipedunculata* C. Müll.**; *hermaphrodita*; *H. pallidae* simillima, sed differt: foliis *dimorphis*, caulis paginae superioris ligulato-oblongis obtusiusculis, breviter acuminatis, eroso-denticulatis, inaequaliter concavis, nervis crassiusculis flavidulis, ante apicem evanidis, superne scaberulis, forma spinae obtusiusculae abruptis, cellulis opacis subpapillosis, basi paullo pellucidioribus, *paginae inferioris lanceolato-acuminatis, tenerioribus pellucidioribus*; perich. e basi latiore magis acuminatis; pedunculo *longissimo* superne scaberulo, operculo longiuscule subulato recto, calyptra scabra.

*Patria.* Insula Trinidad Antillarum: Crüger 1847.

Hookeriae non satis notae, incertae sedis.

1. **H. rigida** Walk. Arn. (Disp. d. M. p. 56.); caulis erectus sesquiuncialis, basi incrassatus, apice in ramos aliquot unciales distichos divisus; folia amplexicaulia, in tres fere ordines sed irregulariter disposita, caulis lateribus et dorso adnata, directione disticha, obovata cum mucrone, angusto margine cincta, serrata, pallida, sicca e lutescente viridia: nervi duo, basi approximati, inde divergentes, dimidio folio breviores, concolores, areolae reticuli ubique aequales subrotundae. †.

*Pterygophyllum rigidum* Brid. II. p. 348. — *Hypnum rigidum* Schw. Suppl. I. II. p. 189.

*Patria.* America meridionalis: Thuillier cum Schwägrichenio communicavit.

Ex obs. *Schwägricheni*, cui soli nota species, cum *H. albicante* e foliorum forma simili commutari potest, sed differt *H. albicans* caule debili decumbente, foliorum nervis remotis parallelis, reticulo ad *Splachnorum* morem laxo.

2. **H. Taylori** C. Müll.; laxe cespitosa, decumbens subpinnata, 3 — 4 unc. longa, ramis pallide viridibus v. luteo-brunneis, longioribus incurvis; folia imbricata subpatentia, deorsum heteromalla (homomalla?), late oblonga, obtusa, ubique valde concava et apice subito linearis-apiculata, denticulata, dorso papillosa, nervis evanidis opacis brunnescentibus; theca in ped. summo apice scabriusculo subbiunciali oblonga obconice apophysata, operculo conico rostrato; perist. internum ciliis interpositis. †.

*H. papillata* Tayl. Lond. Journ. of bot. 1848. p. 283. Nomen ob synonymum Montagneanum mutandum.

*Patria.* Monte Pichincha Andium Quitensium: W. Jameson 1847, Augusto.

3. **H. mollis** Wils. (l. c.); *H. Taylori* simillima, sed differt: ramis latioribus, foliis magis erectis, nervis pellucidioribus, pedunculo brevioribus, theca ovata, basi latiore. †.



*Patria.* Brasilia.

*Species delenda.*

1. **Chaetephora orthotrichoides** Brid. II. p. 339. vel *Leskea orthotrichoides* Raddi Crittog. Bras. p. 6. *Macromitrium filiforme* videtur et ad *Lasiam orthotrichoidem* Synops. nostr. I. p. 720 verisimiliter pertineat.

Gen. VII. **Hypnum** Dill. emend.

Musc. p. 261; a *Linne* et *Hedwig* sancitum. — *Leskea* auct. — *Isothecium* Brid. — *Stereodon* Brid. — *Hookeria*, *Neckera*, *Pterogonium*, *Anomodon* auct. ex parte.

Nomen e *Dillenio* apud *Aëtium* (Serm. 12. C. 44, Serm. 13. C. 117 et C. 118.) primum occurrens, synonyma *Sphagni*, *Splachni* et *Bryi*, i. e. muscum arbo- reum seu *Usneam* designans, ab ὕπνος *somnus* propter vires somniferas ductum, a *Dillenio* muscis pleurocarpi- cis permultis variis impositum, a *Linnaeo* et *Hedwigio* sancitum atque emendatum.

*Calyptra dimidiata.* Peristomium duplex. Den- tes externi sedecim lanceolati, trabeculati, linea lon- gitudinali plus minus lata, rarius fissura exarati, intus trabeculis plus minus cristato-prominentibus. Dentes interni in membrana exserta sulcata reticu- lata lanceolati, articulati sulcati, solidi vel medio perforati vel omnino hiantes et secedentes, ciliis 1 — 4 interpositis, saepius rudimentariis.

I. *Folia bifariam imbricata.*

Sectio I. **Dendroglossophyllum.** Caulis erectus, inferne indivisus, *superne dendroideo-pinnatus*, ramis compressis; folia plus minus ligulato-oblonga, rotundate v. elliptice areolata.

a. *Folia enervia.*

1. **H. Porotrichum** C. Müll.; dioicum; caulis pri- marius repens, secundarius erectus, basi brevi nuda fo- liolis remotis obtecta, superne frondiformi-dendroideus

2—3 pinnatus, ramis *dense approximatis* complanatis *teneris* sordide viridibus attenuatis; folia caulina distichacea *oblonga angusta breviter acuminata, apice serrulata, margine erecto, nervo tenui ad medium evanido*, cellulis ellipticis submollibus viridibus, alaribus vix ullis; perich. vaginantia elongate acuminata reflexa *subdenticulata ener- via*, cellulis *elongatis laxiusculis viridibus, parietibus in- terruptis*; theca in ped. elongato flexuoso purpureo laevi suberecta ovata, operc. longe subulato recto; perist. d. ext. *longissimi* late lanceolato-acuminati dense trabeculati, int. aequilongi lati carinati hiantes flavidi, ciliis 1—2 interpositis.

*Climacium Porotrichum longirostrum* Brid. II. p. 275. — *Nec- cera longirostris* Hook. Musc. Exot. t. 1. — *Hypnum expansum* Tayl. Lond. Journ. of bot. 1846. p. 64. fide Wilsoni huc pertinet.

*Patria.* In jugis Andium: Humboldt et Bonpland; in monte Pichincha pr. Quito: W. Jameson 1827.

b. *Folia uninervia.*

α. *Theca erecta.*

2. **H. aciculatum** C. Müll.; caulis 6—8-uncialis procumbens elongatus pinnatus, pinnis remotiusculis patentibus, apice flaccidis subuncialibus; folia caulina laxa erecto-patentia lanceolata longius acuminata serrulata, mediotenus uninervia, vaginantia, ramea perangusta; perichaetia ad caulem principem aggregata, pedunculis brevibus scabris duplo longioribus, theca suberecta ovata, rostrate operculata; perist. int. d. perforati, ciliis singulis interpositis.  $\frac{1}{4}$ .

*Leskea aciculata* Tayl. Lond. Journ. of bot. 1847. p. 339.

*Patria.* Prope Quito Andium: W. Jameson, Nov. 1846.

*Hypopterygio* affinis appellatur, sed folia stipulaeformia auctor non descripsit.

3. **H. macrotheca** C. Müll.; *dioicum*; caulis primarius repens tomentosus, secundarius erectus jam e basi fere foliosus, ramis *simplicibus vel subdivisis*, mox dendroideis, mox elongatis subpinnatim dispositis depressis;

folia ramulina laxè imbricata sparsa, dorsalia appressa, lateralia distantia, neque tamen regulari modo imbricata vel quadrifariam disposita, e basi ovatâ oblonga acuta brevia, concava, sordide viridia, *argute dentata*, nervo ante apicem abrupto valido viridi, cellulis ubique *grosse* oblongo-rotundatis; perich. multo angustiora et longiuscule ovato-acuminata, nervosa; theca in ped. mediocri laevi rubro *recta cylindrica longiuscula aequalis*; perist. robustum; columella exserta. †.

*Neckera macrocarpa* Brid. II. p. 233. — Schw. Suppl. III. II. 1. t. 267.

*Patria.* Nepal.

Ab *H. fasciculato* proximo notis datis differt.

4. **H. flabellatum** Dicks. (in Hb. Linn. jun.); caulis secundarius grandis erectus inferne simplex, foliis arcte vestitus, superne sparse ramosus subpinnatus, ramis complanatis; folia duplicato-disticha patentia elliptica obliqua complanata, sub apicem serrulata, nervo dimidiato, luteo-virescentia pallida nitida; perich. lineari-lanceolata; theca in ped. perbrevis rubro superne flavido erecta ovata ferruginea. †.

*Leskea Omalia flabellata* Brid. II. p. 325. — *Hookeria flabellata* Sm. in Trans. of Linn. Soc. IX. p. 280. t. 23. f. 2.

*Patria.* India Orientalis.

5. **H. superbum** C. Müll.; caulis dendroideus erectus, basi simplex, sursum fasciculatim ramosus, ramis subpinnatis complanatis attenuatis; folia laxè imbricata subpatentia concava, late oblonga subacuta, apice denticulata, mediotenus uninervia, substriata; perichaetia in caulis pagina inferiore, foliis viridissimis; theca in ped. elongato erecta ovata, annulata, operculo longius rostrato; perist. d. ext. elongati angusti trabeculati, int. perforati in membrana brevi positi, ciliis 2—3 capillaribus brevissimis interpositis. †.

*Leskea superba* Tayl. Lond. Journ. of bot. 1846. p. 61 et cum ic. Wils. 1. c. p. 452. t. 16.

*Patria.* Ad truncos arborum montis Pichincha prope Quito: W. Jameson 1845; in cacumine m. Pisagua Andium Quitens. ex altit. 10,000': W. Jameson 1827.

Ex animadv. auctoris *Neckerae Trachylomati* similima.

β. Theca inclinata.

6. **H. gymnopodium** C. Müll.; caulis procumbens ramosus, ramis dendroideis ascendentibus basi nudis, sursum fasciculatis, complanatis attenuatis; folia caulina laxe imbricata erecto - patentia, siccitate striata, ovato-lanceolata, margine basi recurva, sursum serrulata, mediotenus uninervia; perich. majora recurva; theca inclinata anguste apophysata ovata; perist. d. ext. lanceolati, int. in membrana brevi positi perforati. †.

*Leskea gymnopoda* Tayl. Lond. Journ. of bot. 1846. p. 62. — Ad *H. expansum* Tayl. (*H. Porotrichum* nob.) fide Wilsoni pertinere dicitur, sed distinctum videtur.

*Patria.* In sylvis declivium occidentalium montis Pichincha Andium Quitensium: W. Jameson.

Ab *H. superbo* simillimo statura minori, foliis angustioribus acutioribus atque theca apophysata ex animadv. auctoris differt.

7. **H. floridum** Tayl. (Lond. Journ. of bot. 1847. p. 339.); caulis 5—6 uncialis, basi simplex nudus, erectus, supra *bipinnatus*, ramis complanatis *constanter attenuatis* graminicoloribus; folia caulina erecto - patentia late ovata concava obtusiuscula *acuminulata* serrulata, mediotenus uninervia, plicata; perich. conferta majora; theca in ped. laevi subinclinata ovata, operc. longius rostrato; perist. d. ext. pallidi, int. foraminosi, ciliis *perbrevibus distinctis binis* interpositis. †.

*Patria.* Prope Quito Andium: W. Jameson, Nov. 1846.

Ab *H. superbo* praeter characteres illustratos pedunculis creberrimis brevioribus differt.

8. **H. fasciculatum** Sw. (Prodr. Fl. Ind. Occ. p. 140.); *dioicum*; caulis primarius repens, *secundarius erectus lon-*

*giusculus strictus, basi indivisus, foliis squamaeformibus pallidis obtectus, angulatus, apice ramis latiuscule complanatis fasciculatim divisus attenuatis viridissimis splendentibus frondiformi-dendroideus; folia caulina perfecte distichacea, e basi latiore ligulato-oblonga obtusata subacuta, summo apice erose serrata, planiuscula, margine erecta, elliptice viridissime areolata, cellulis alaribus vix ullis, nervo valido laxiuscule celluloso ante apicem dissoluto; perich. pauca appressa, late vaginantia, interna apice subito breviter acuminata, integerrima, obsoletinervia, elongate grossius et laxius areolata; theca in ped. mediocri rubro laevi arcuato subhorizontalis, e basi angusta oblonga, operc. conico-subulato rectiusculo, calyptra angusta pallida; perist. robusti d. ext. late lanceolati, rufescentes, longius subulati hyalini, ad latera albida cellulosi, int. in membr. alta flava late lanceolati valde hiantes, ciliis 2—3 albidis aequilongis.*

Brid. II. p. 396. — Hedw. Sp. Musc. p. 245. t. 62, sed sterile.

*Patria.* In montibus altissimis Jamaicae, ad radices arborum sterile legit Swartz. Venezuela, Caripe: Moritz 1844 fertile legit; Galipan, in lapid. humidis, elevatione 5000 pedum in prov. Caracas: Funck et Schlim, 1845, Januar. Coll. Linden. No. 355; Tovar, alt. 5000 pedum: Moritz specimina, flagellis tenerrimis permultis brevibus praedita, legit.

#### Species incertae sedis.

**9. H. Thieleanum** C. Müll.; *dioicum*; caulis primarius repens; divisiones erectae altiusculae *tenerrimae*, ramis *gracillimis subcompressis laxifoliis* attenuatis flexuosis simplicibus v. *brevissime ramulosis lutescentibus* superne pinnatim divisae, inferne foliis squamaeformibus minutis obtectae; folia ramulina *minuta, e basi angustissima sensim dilatato-ovata acuta, superne grosse serrata, cava, margine basi anguste revoluta*, nervo dimidiato pallido canaliculato, dorso parce dentato, cellulis rotundis incrassatis pallidis, alaribus paucis minutissime quadratis obscuris *ventricose impressis*.

*Isothecium intermedium* Thiele in Hb. Reg. Berol.

*Patria.* Brasilia: Sellow?

Omnium congenerum tenerrimus.

**10. H. subserratum** C. Müll.; caulis *subhumilis* erectus, basi indivisus, apice pinnatim dendroideus, ramis brevibus parce divisis, compressis; folia bifaria, e basi angustiore oblongo-ligulato-acuminata planiuscula, *apice serrata, grosse areolata, nervo crassissimo ad apicem fere producto.* †.

*Neckera subserrata* Hook. Ic. Pl. Rar. t. 21. f. 7. — Cum diagnosi in Lond. Journ. of bot. 1840. p. 13.

*Patria.* Nepal: Wallich.

**11. H. piniforme** C. Müll.; *dioicum?* caulis primarius longe repens, divisiones erectae *pusillae tenellae* frondiformes, jam e basi fere ramis *gracilibus* complanatis *subsimplificissimis simpliciter pinnatae lutescentes*; folia caulina *late ovato-lanceolata implana* caviuscula *subintegerrima*, margine erecto, nervo pallido ante apicem evanido, flaccido, cellulis incrassate rotundatis scariosis pallidis, alaribus vix ullis minute incrassate quadratis; ramulina *multo minora*, ovata acuta, cava, basi parum impressa, *minute erose denticulata.*

*Pilotrichum piniforme* Brid. II. p. 260.

*Patria.* In insula Guadeloupe: Hb. Candoll. et Bridel.

Species tenella pulchella, sed sterilis tantum nota.

c. *Folia binervia.*

**12. H. Arbuscula** Hook. (Musc. Exot. t. 112.); *dioicum*; caulis repens; ramus primarius palmaris erectus flexuosus rigidus, basi subnudus foliis parvis tectus, superne pinnatus, ramis *secundariis inaequalibus brevibus v. elongatis flexuosis iterum breviter ramulosis*, patentibus latiuscule complanatis; folia caulina lutescenti-viridia nitida, distichaceo-imbricata, late ovata obtusa breviter acuminata, cymbaeformi-concava, margine erecto *integerrimo*, nervis binis brevissimis obsoletis, cellulis li-

nearibus, superne subrotundis; perich. lanceolato-acuminata recurva; theca in ped. *perbrevis ovata* erecta, rufusca; perist. d. ext. dense trabeculati flavo-fulvi longiusculi robusti, int. aequilongi angusti pertusi flavidi, ciliis 1—2 capillaribus parum brevioribus albidis. †.

Schw. Suppl. III. II. 2. t. 300. — *Isothecium Arbuscula* Brid. II. p. 372. — *Hookeria Arbuscula* Sm. in Linn. Trans. IX. p. 280. t. 23.

*Patria.* In sinu Dusky Bay dicto Novae Seelandiae: Menzies 1791.

Operculum adhuc ignotum. Notis cursive impressis a *Neckera planifolia* et *Trachylomate* distat.

**13. H. excavatum** Tayl. (Phytologist. 1844. p. 1095.); caulis decumbens laxe cespitosus valde pallide viridis; divisiones erectae breves dendroideae fasciculate divisae; folia caulina imbricata patentia concavissima rotundata breviter apiculata integerrima, humore aequaliter tumida, basi binervia; perich. lanceolato acuminata; theca ovata inclinata brevicolla, in ped. laevi posita. †.

*Patria.* Five Islands, coast of New South Wales: Allan Cunningham. Australia: Fraser 1823.

Ab *H. Arbuscula* ex auctore partibus omnibus minoribus, statura magis decumbente et pedunculo longiore graciliore differt.

Sectio II. **Glossophyllum.** Caulis planissimus decumbens vel erectus, dichotome v. pinnatim ramosus, compressus, e basi jam foliis magnis obtectus; folia ligulato-oblonga bifariam imbricata planiuscula, elliptice areolata laevia.

*Euneckeras* generis *Neckerae* plantae iterantes, characteribus cursive impressis ab *Omaliis* et *Dendroglossophyllis* distinctae, utramque sectionem optime conjungentes.

Subsectio I. **Spathularia.** Caulis decumbens *pinnatus*; folia *spathulato-ligulata*.

**14. H. trichomanoides** Schreb. (Spic. Fl. Lips. p. 88.); *monoicum*; cespites latissimi decumbentes *amoene viridissimi splendidissimi*, caulis assurgens pluries dichotomus.

tome divisus, anguste complanatus; folia caulina dense distichacea, e basi *angustiore subspathulate ovato-rotundata obtusissima, planissima*, margine plano, apice crenulato, nervo unico latiusculo viridi saepe furcato, ultra medium producto, cellulis mollibus *valde chlorophyllosis* ellipticis v. longioribus; perich. dense appressa vaginanti-acuminata, tenera, laxe pellucide reticulata enervia; theca in ped. breviusculo purpurascete erecta parvula cylindraceo-oblonga badia, imperfecte annulata, operc. oblique subulato; perist. d. ext. angusti lutei, superne albidi rugulosi, dense trabeculati, int. aequilongi in membr. altiuscula angusti albidi laeves distincte hiantes, ciliis singulis rudimentariis interpositis.

*Neckera trichomanoides* Hartm. Sk. Fl. Ed. V. p. 338. — *N. rotundifolia* ej. l. c. ? — *Leskea Omalia trichomanoides* Brid. II. p. 329. — *L. trichomanoides* Hdw. Sp. Musc. p. 232. — *Fuscina trichomanoides* Schrank. Baiers. Fl. II. p. 451. — *Hypnum pennatum trichomanoides, splendens, ramosum.* Dill. Musc. p. 269. t. 34. f. 8.

*Patria.* Per totam Europam et in America septentrionali, ad truncos arborum et in terra sylvarum umbrarum. — *Vere.* Ditissime fructificans.

**15. H. falcifolium** Hook. et Wils. (Lond. Journ. of bot. 1844. p. 554.); caulis procumbens vage ramosus, ramis brevibus subsimplicibus compressis; folia disticha patentia oblongo-acinaciformia obtusa enervia integerrima; theca in ped. laevi elliptica oblonga nutans, operculo conico. †.

*Patria.* Insel-Bay Novae Seelandiae: J. D. Hooker.

Ex animadv. auctorum species memorabilis, foliis splendentibus et habitu *H. trichomanoidis*.

**16. H. Webbianum** C. Müll.; *H. trichomanoidi* simillimum, sed folia magis rotunda, *firmiora*, nervo unico *vix conspicuo*; perich. e basi vaginante angustata *linguaeformia*, enervia v. breviter obsolete binervia; theca *subaequalis ovata, ore coarctata*; perist. d. ext. *lati robusti*, int. *latiores* ciliis *binis* rudimentariis interjectis.

*Hookeria Webbiana* Mont. in Hist. d. II. Canar. p. 12. t. 1. f. 1.



*Patria.* Teneriffa, in sylvâ Agua Garcia: Webb, dein in locis non indicatis Despréaux.

**17. H. spathulaefolium** C. Müll.; *dioicum*; *H. trichomanoidi* simillimum, caulis longe repens; divisiones decumbentes simplices, dichotomi v. in frondem subrotundate dendroideam bipinnatae; folia e basi brevissime angusta subnervi sensim latissime spathulato-rotundata, apice truncato-obtusato integerrimo, planissima subsymmetrica, cellulis rotundatis viridibus firmissculis.

*Patria.* India Orientalis: Hb. S e n d t n e r.

E foliis *Mniadelphos* in memoriam revocans et divisiones dendroideae *H. microdendron* simillimae.

**18. H. microdendron** C. Müll.; *dioicum*; caulis secundarius in frondem planissimam *humilem* 1—3 pinnatam subrotundate dendroideam divisus, amoene viridis, splendens; folia angustiora, apice magis rotundato haud truncato crenulato, nervo unico *distincte conspicuo pallido tenuissimo* ultramedio.

*Hookeria* ? *microdendron* Mont. Voy. Bonite. Crypt. t. 150. f. 3.

*Patria.* Cochinchina, in cort. arborum prope Tourane: G a u d i c h a u d.

Ob vestigia laudata ab *H. spathulaefolio* proximo certe distat.

Subsectio II. **Euglossophyllum.** Caulis decumbens *dichotome ramosus*; folia *ligulato-acuminata laevia*.

**19. H. radiculosum** C. Müll.; *monoicum*; repens prostratum radiculosum dichotome vage ramosum compressiusculum, ramis brevibus pallide viridibus splendidulis; folia caulina densiuscule imbricata, madore inordinate laxa, e basi latiore oblongo-ligulata obtuse breviter acuminata, basi caviuscula, superne subplana, margine erecto integerrimo, nervo valido ante apicem evanido, cellulis *ellipticis incrassatis pallide virentibus*, alaribus multis *incrassate quadratis* planissimis, intus granulosis obscuris; perich. pauca subappressa, vaginantia acuminata vix denticulata obsoletinervia basi laxius reticulata; theca in ped.

*longiusculo* gracili rutilante laevi *erecta minuta obconica*, exannulata pallida, dein fuscescens, leptodermis, operc. *turgide conico oblique acuminato ochraceo*; perist. d. ext. angustiusculi lutei dense trabeculati, int. aequilongi albidii angusti subpertusi, apice parum rugulosi, ciliis 1—2 rudimentariis.

*Pterygophyllum radiculosum* Brid. II. p. 346. — *Hookeria radiculosa* Hook. Musc. Exot. t. 51.

*Patria.* Venezuela, in crepidinibus prope Caripe, locis scopulosis temperatis irriguis, elevatione 480 hexapodum: Humboldt et Bonpland. Prov. Caracas: Moritz Coll. I. No. 53.

*H. brevipedi* proximum.

20. **H. brevipes** C. Müll.; *monoicum*; *H. radiculoso* simillimum, sed minus, folia *anguste subspathulato-ligulata, distincte obtusa*, tenuiter nervosa, cellulis *ubique molibus, haud incrassatis, amoene chlorophyllosis*; perich. magis ligulato-acuminata, laxius reticulata; theca in ped. *perbrevis erecta, minute ovalis, ore coarctata, ochracea, exannulata, operc. brevissimo conico-rostellato*; perist. brevius et angustius.

*Patria.* Brasilia, prope Rio Janeiro: Beske.

21. **H. odontocalyx** C. Müll.; *H. radiculoso* simillimum, sed exilius, minus radiculosum, folia caulina angustiora, perich. magis nervosa, *apice distincte serrulata*; ped. laevis rutilans longiusculus.

*Hookeria radiculosa* Hsch. in Musc. Drègeanis.

*Patria.* Prom. b. spei: Drège.

E theca, adhuc ignota, ab *H. radiculoso* verosimiliter distinctius quam caractere laudato diversum et quoad patriam procul dubio species propria.

22. **H. indicum** C. Müll.; *dioicum*; *H. radiculoso* simillimum, sed theca *brevius pedunculata horizontalis oblonga*; perist. internum ciliis singulis *multo distinctioribus longis*.

*Hookeria obtusifolia* Harv. in Hook. Ic. Pl. Rar. t. 24. f. 11; cum diagnosi in Lond. Journ. of bot. 1840. p. 15. — *Pterygophyllum Indicum* Bél. Voy. dans l'Indie or. Crypt. p. 87. t. 9. f. 2!

*Patria.* Nepal, in terra (?): Wallich. In arboribus humide crescentibus prope Carnate Indiae orientalis: Bélanger.

**23. H. parvifolium** C. Müll.; monoicum; laxe cespitosum; caulis *gracillimus pusillus* repens laxius *magis pinnatus*, ramis subcomplanatis brevibus viridissimis; folia minuta *laxius* imbricata erecto-patentia, siccitate incurva crispula, ovata concava obtusiuscula papillosa integerrima, nervo *hyalino infra apicem* evanido dorso prominente; perichaetia conspicua, foliis laevibus latioribus, ext. minutissimis, internis lanceolato-subulatis, nervo percurrente, dense appressa erecta; theca in ped. gracillimo subbiunciali *scabro* apice curvo cernua ovata, operc. *longirostro*, calyptra dimidiata; perist. d. int. subulati. †.

*Hookeria parvifolia* Tayl. Lond. Journ. of bot. 1848. p. 193.

*Patria.* Andes Quitenses, Puerto del Napo: Dr. Manuel Villavicencio.

Ex obs. auctoris *H. radiculoso* simillimum, a quo notis accuratius designatis differre legitur.

Sectio III. **Omalia** Brid. II. p. 325. — Caulis decumbens dichotome vel pinnatim ramosus compressus vel complanatus; folia *ovato-acuminata elongate reticulata*, saepius secunda.

*Glossophyllis proximae*, foliorum forma atque reticulatione diversae.

Subsectio I. **Vesicularia.** Caulis *hookerioideus eleganter pinnatus*; folia laxe reticulata, plerumque asymmetrica, laevia, binervia.

*Lepidopila* generis *Hookeriae* referentes.

a. *Folia integerrima.*

α. *Folia breviter acuminata.*

**24. H. Meyenianum** Hmp. (in litt.); caulis subanguste complanatus depressus, subregulariter breviter pinnatus nitens viridissimus; folia caulina *constanter asym-*

*metrice* late ovata oblique acuminata, acumine *plicato reflexiusculo*, margine *integerrimo*, nervis valde obsoletis, cellulis *mollibus ampliuscule laxis*, maxime pellucidis, parietibus valde chlorophyllosis; perich. *anguste longe lanceolato-acuminata* integerrima enervia; theca in ped. elongato glabro tenuissimo horizontalis *cylindraceo-oblonga*, deoperculata sicca ore maxime constricta, operc. conico acuminato, calyptra glabra, perist. int. ciliis binis rugulosis interpositis.

*Acosta Meyeniana* C. Müll. Linn. XXI. p. 194. — *Hookeria Meyeniana* Hmp. Ic. Musc. t. 3.

*Patria.* Manila: Meyen.

Ab *H. inflectente* habitu simillimo characteribus expositis differt.

25. **H. Montagnei** C. Müll.; *H. Meyeniano* simillimum, sed *angustius complanatum*; folia caulina multo *minora et tenuiora*, e basi maxime truncatâ asymmetricè ovato-acuminata, acumine acuto planiusculo reflexo v. flexuoso, margine integerrimo, cellulis marginalibus pachydermibus pseudo-denticulato, nervis *obsoletissimis vix ullis*, cellulis magis chlorophyllosis, *utriculo primordiali maxime evoluto saepe densissime repletis tenerrimis*; perich. *tenuissime filiformi-acuminata*; pedunculus et theca *H. Meyeniani*.

*Pterygophyllum Montagnei* Bél. Voy. dans l'Ind. or. 1835. Bot. II. Crypt. p. 85. t. 9. f. 1.

*Patria.* Java, ad ped. arbor. pr. Buitenzorg: Bélanger.

26. **H. rutilans** C. Müll.; *dioicum?* breviter regulariter pinnatum, ramis subsimplicibus erecto-patentibus v. dichotomis decurvatis, *viridissimis v. luteo-viridibus*, tenuiter complanatis, tenellis; folia rami fertilis laxè conferta, parvula, e basi cordata enervi v. obsoletissime nervosa *latiuscule ovato-acuminata*, parum concava, *integerrima*, *laxè chlorophyllose ampliuscule* pellucide reticulata, *mollia*; perich. late lanceolata convolutacea, longius flexuose acuminata, laxius reticulata; theca in ped.

longiusculo glabro rutilante minuta nutans *rotundo-ovata*, operc. conico acuto obliquo.

*Leskea (Omalia) rutilans* Brid. II. p. 332.

*Patria.* Portorico: Bertero. Venezuela, Cumbre de Valenzia, alt. 3000': Wagner 1848. Insula St. Catharina Brasiliae, loc. umbrosis pr. Destero, Jan. et Febr. 1847: Pabst.

Ab *H. subdenticulato* differt: notis cursive impressis et fol. perich. haud filiformi-acuminatis, ab *H. conostego*: ramis viridibus, cellulis mollibus laxiusculis chlorophyllosis, ab *H. Pöppigiano*: foliis conformibus enervibus v. obsoletissime nervosis senioribus mollibus, magis ovatis. Parce fructiferum.

**27. H. Pöppigianum** Hmp. (in litt.); repens *irregulariter* pinnatum, ramis brevibus *curvatis fuscis vel junioribus amoene viridissimis teneris*, vix complanatum; folia distincte inflectentia ramorum seniorum fuscorum angusta, late lanceolato-acuminata, apice parum falcata, integerrima, cellulis inanibus sordide pellucidis firmissimulis, nervis *distinctis tenuibus brevibus flavidis*, folia ramorum juniorum viridium minora chlorophyllosa magis complicata subenervia; perich. magis acuminata; theca in ped. elongato glabro rubro tenui nutans parvula oblonga, ore constricta, operc. turgide conico acutiusculo; perist. d. int. ciliis binis.

*Hookeria Pöppigiana* Hmp. Ic. Muse. t. 4.

*Patria.* Peru, Cuchero: Pöppig.

Ab *H. rutilante* characteribus laudatis differt.

**28. H. vesiculare** Schw. (Suppl. II. II. 2. t. 199.); *monoicum*; caulis repens subpinnatus deplanatus *angustissimus* brevirameus tenellus amoene viridis; folia caulina disticha, laxiuscule disposita, *parvula symmetrica stricta ovato-acuminata* enervia integerrima, e cellulis laxissimis majusculis pellucidis amoene viridi-pachydermibus composita; perich. e basi *vaginante late ovata subito reflexiuscule acute acuminata*, laxius reticulata; theca in ped. mediocri rufescente laevi nutans *urceolata macrostoma*,

sicca ore constricta, parva, operc. conico-rostrato recto, calyptra glabra; perist. d. ext. praelongi lineari-lanceolati badii sulcati, int. angustiores subsolidi flavidi aequilongi, ciliis aequilongis binis v. tenuis capillaribus conflatis. †.

*Hookeria praelonga* W. Arn. Disp. d. M. p. 56, ex animadv. Wilsoni in Lond. Journ. of bot. 1848. p. 278, huc pertinere dicitur.

*Patria.* Ad rupes et fontes prope plantationem Richmond Jamaicae: Reider, Vindobonensis.

29. *H. scaturiginum* Brid. (II. p. 418.); caulis elongatus *flaccidissimus flexuosus*, ramis *flexuosis flaccidissimis* pallide viridibus pinnatim dispositis brevibus vel elongatis; folia caulina *laxissime bifariam disposita contorta*, e basi truncata asymmetrico-ovato-acuminata, caviuscula, acumine subobliquo, margine erecto integerrimo, nervis binis *maxime obsoletis*, cellulis ubique laxis elongatis *flaccidis* pellucidis.

*Patria.* Insula Bourbonis, in scaturiginibus, ex gr. in fonte rivuli des Remparts dicto, aquis innatans: Bory St. Vincent.

E caract. explicatis facile discernibile.

β. *Folia pilifera.*

30. *H. reticulatum* Dz. et Molkb. (Ann. d. sc. nat. 1844. p. 309.); *monoicum*; prostratum, ramis brevibus subaequalibus tenuibus *luteis* subpatentibus pinnatum, compressum; folia caulina imbricata, e basi *latissime truncata enervi vel vix nervosa late ovata*, in acumen *subfiliforme longum flexuosum producta, integerrima, inaequaliter plana*, cellulis *laxissimis lutescenti-pellucidis* inanibus; perich. longissime acuminata; theca in ped. elongato tenuissimo laevi nutans ovato-urceolata, operculo convexo depresso mucronato.

*Patria.* Java.

Flos masc. minutus, polyphyllus, foliis minutis e basi concava ovata filiformi-acuminatis.

**31. H. verrucosum** Hmp. (Ic. Musc. t. 10.); caulis procumbens gracilis irregulariter pinnatim ramosus tenellus, ramis brevibus simplicibus attenuatis apice curvatis tenuibus; folia caulina concava, ex cordato ovato-lanceolata longe acuminata integerrima enervia secunda v. falcato-tortilia, *marginē involutaceo*, cellulis elongatis *laxiusculis*; perich. longius acuminata recta; theca in ped. brevi *arcuato nutans minuta ovata urceolata, maxime verrucosa*, operculo conico brevi obtuso; perist. d. ext. angusti breves, int. angusti imperforati, ciliis singulis interjectis.

*Patria.* Java.

Notis cursive impressis facile distinguitur.

**32. H. cuspidatifolium** C. Müll.; *dioicum*; late cespitosum, repens *irregulariter ramosum* appressum, *pallide viride, foliis angustis subcontortis sursum inflectentibus subhomomalle anguste complanatum et subcrinitum*, madefactum planum; folia caulina dense imbricata, *longiuscule anguste lanceolata oblique tenuiter acuminata, cellula solitaria elongata acuta terminata, caviuscula, enervia, cellulis paucis elongatis laxiusculis albidis, utriculo primordiali tenuissimo substriatulis*, integerrima; perich. e basi lata vaginante longissime acuminata; theca in ped. tenuissimo longiusculo glabro inclinata v. nutans minutissime ovalis, ore constricta, operc. turgide conico, longe oblique rostellato, calyptra minuta straminea glabra; perist. d. ext. linea diaphana exarati, anguste subulati dense trabeculati, *interni longiores flavidi articulati angusti imperforati, ciliis nullis.*

*Acosta cuspidata* C. Müll. Linn. XXI. p. 192.

*Patria.* Surinam, pr. Paramáribo, in truncis putridis sylvarum, Febr. 1844: Kegel.

*Leskeae leucostegae* Brid. habitu simillimum et characteribus explicatis species distinctissima.

**33. H. crinitifolium** C. Müll.; *dioicum*; ramis irregularibus, brevibus et elongatis, *glaucoviridibus, foliis longissimis angustissimis contortis, lanceolatis, longissime*

*filiformi-cuspidatis, piliferis, ubique crinitum; folia caulina plerumque homomalla, longissime laxe pellucide reticulata, cellularum parietibus chlorophyllosis mollia, enervia, sicca et madefacta maxime contorta flexuosa, integerrima; perich. simillima; theca in ped. longiusculo glabro tenerrimo minutissime ovalis nutans, calyptra glabra.*

*Patria.* Chile: Pöppig.

*H. cuspidatifolio* haud dissimile, sed notis datis distinctissimum.

**34. *H. sphaerocarpum* C. Müll.;** *monoicum; procumbens tenue, sparse laxe et patentissime foliosum, haud vel vix complanatum, irregulariter ramosum, viride, vix nitidulum; folia caulina remota patentissima, angusta, e basi truncata latiuscule et longe lanceolato-acuminata strictiuscula v. apice parum falcato, margine erecto integerrimo, nervis vix ullis, cellulis mollibus elongatis laxis pellucidis chlorophyllosis; perich. convolutacea tenerrima echlorophyllosa longe acuminata; theca in ped. flavido elongato glabro apice incrassato nutans sphaerico-oblonga, ore coarctata; perist. parvulum, internum ciliis binis rugulosis brevibus.*

*Pterygophyllum Montagnei* Mont. in litt.

*Patria.* Galega: Hb. Montagn.

Ab *H. Montagnei* et affinibus notis cursive impressis longe recedit. Flos masc. turgidus, fol. convolutaceis late ovatis, obtusis subito breviter acuminatis tenerrime reticulatis.

**35. *H. strumosum* C. Müll.;** *hermaphroditum; repens laxe pinnatim ramosum, ramis confertis brevibus subsimplicibus compressiusculis; folia caulina dense imbricata subhomomalla laxissima concava dilutissime viridia, ovata longe acuminata subpilifera integerrima enervia, cellulis pellucidis parallelogrammis maximis; perich. latiora minora breviter acuminata magis concava, interiora majora et latiora brevius acuminata; theca in ped. vix semunciali ascendente parum flexuoso laevi purpurascete nutans oblonga inaequalis strumosa rugulosa fusca, operc.*



conico longe rostrato obliquo ferrugineo; perist. d. ext. linea media late diaphana exarati subtilissime et margine prominenti-trabeculati fusci, int. in membr. lutea reticulata aequilongi solidi, calyptra cucullata straminea pilosa. †.

*Hookeria strumosa* Hsch. Pl. Bras. I. p. 69.

*Patria.* Brasilia, in truncis demortuis sylvarum antiquissimarum, in Serra dos Orgaôs, Febr.; pr. Sebastianopolin Octobri: Beyrich; in lapidibus ibidem, Julio et Aug. c. fr. maturis: Merkel; pr. Tijucam: Olfers.

Cui affine?

b. *Folia denticulata.*

a. *Folia breviter acuminata.*

**36. H. inflectens** C. Müll.; *subanguste complanatum, decumbens, subregulariter et breviter pinnatum, luteo-viride nitens, appressum, planissimum; folia caulina densiuscule conferta patentia, sicca citissime introrsum inflectentia, caviuscula, late ovata acuminata, margine plano apice obsolete denticulato, nervis brevissimis obsoletis, cellulis firmissculis elongatis anguste laxis, e viridi pellucidis; perich. e basi latissime truncata convolutacea, inferne laxe reticulata enervi latius ovata, apice inaequaliter sinuate et grosse dentate obtusa, acumine longissimo flexuoso sensim tenui terminata, externa minora haud sinuata; theca in ped. elongato crassiusculo glabro nutans, deoperculata ampla hemisphaerica.*

*Leskea (Omalia) inflectens* Brid. II. p. 331.

*Patria.* Ex Otaheite Australiae: Dumont d'Urville.

**37. H. acinacifolium** Hmp. (in litteris!); *monoicum; caulis depressus complanatus latiusculus, breviter pinnatus, viridissimus; folia caulina laxiuscule imbricata, latiuscule asymmetrico-ovato-oblonga, obtuse acuminata, caviuscula, obsoletissime binervia, elongate laxe chlorophyllose reticulata, obscure denticulata; perich. vaginantia laxius reticulata longiuscule acuminata integerrima;*

theca in ped. *elongato* purpureo laevi *nutans*, *urceolato-ovalis*, ore coarctata, badia; perist. d. ext. ferruginei, int. flavi laeves, ciliis binis *in unum coalitis* articulatis albis *rugulosis*.

*Patria.* Nova Seelandia, Strong Island, ad radices: Hb. S o n d e r i a n u m.

*H. Meyeniano v. inflectenti* simillimum; a primo foliis denticulatis, a secundo foliis haud inflectentibus jam facile distinguitur et characteribus laudatis cognoscitur.

**38. H. urceolatum** Hsch. (Fl. Bras. I. p. 87. t. 4.); *monoicum*; prostratum, ramis brevibus inaequalibus lutescentibus nitidis compressis densifoliis; folia caulina dense imbricata, *anguste lanceolata acuminata stricta v. parum apice falcata*, *enervia*, *supra basin distincte denticulata*, e cellulis *angustissimis elongatis leptodermibus parum chlorophyllosis mollibus ubique composita*; perich. *angustius acuminata*; theca in ped. longiusculo tenui glabro *nutans*, minute ovalis *urceolata*, operculo cupulato mamillato, calyptra glabra; perist. d. int. ciliis 2—3 interjectis.

*Patria.* Brasilia, prope Sebastianopolin, in sylvis montanis, Augusto: M a r t i u s.

**39. H. nutans** Nees (Hb.); prostratum, ramis brevibus subaequalibus tenuibus *valde compressis pallide viridibus* subpatentibus pinnatum, *latius*, flaccidum; folia caulina *laxe imbricata majora*, e basi *late cordato-ovata breviter et stricte acuminata*, integerrima vel apice vix denticulata, aequaliter caviuscula, nervis vix ullis obsoletissimis, cellulis laxissimis elongatis mollibus teneris *parum chlorophyllosis v. hyalinis*; perich. longissime filiformi-acuminata; theca in ped. *elongato nutans* minute ovalis, operc. conico acuto recto.

*Patria.* Java, in tumulis Badnorum: J u n g h u h n.

*H. reticulato* structura folii proximum, characteribus autem laudatis certe recedens. *H. Montagnei* jam primo aspectu ramis eleganter pinnatis et distiche foliosis viridissimis teneris densis differt.

40. **H. Zollingeri** C. Müll.; *dioicum?* repens tenuicaule, ramis inaequaliter brevibus flexuosis flaccidis, siccitate rigidiusculis, luteo-viridibus, dein nigrescentibus; folia caulina laxè imbricata irregulariter inflectentia, parvula, concava, angusta, e basi infima parum constricta oblonga, breviter et oblique saepe reflexo-acuminata, margine erecto superne tenuiter denticulato, cellulis angustissime linearibus luride viridibus, nervis inaequalibus tenuissimis flavidis; perich. e basi planiuscula vaginante pallida longiuscule anguste acuminata acuta, reflexiuscula subintegra enervia, infima basi laxius reticulata; theca in ped. elongato laevi tenui rubro minute ovalis inclinata, calyptra minuta glabra, perist. minuto aequali, interno ciliis tenerrimis brevibus.

*Patria.* Java: Zollinger No. 1606.

Ab *H. reticulato* simili vestigiis notatis facile distinguitur.

41. **H. Dubyanum** C. Müll.; *dioicum*; latiuscule complanatum, robustum, firmum, late cespitosum, procumbens, sordide lutescens, ramis inaequalibus apice saepe curvatis brevibus pinnatum; folia caulina dense imbricata, erecto-patentia, subsymmetrico-ovata breviter acuminata concava, margine erecto v. parum reflexo ubique denticulato, nervis tenuissimis brevibus flavidis, cellulis angustis brevibus, aliis angustissimis, aliis amplioribus pelucidis igitur irregularibus, pallide viridibus; perich. e basi latissime vaginante longissime flexuose acuminata, laxius reticulata, apice remote acute denticulata; theca in ped. laevi elongato apice maxime arcuato cygneo-nutans, oblonga, ore constricta, operculo depresso oblique rostellato; perist. dentes interni externos aequantes, ciliis 2—3 brevibus rugulosis.

*Hypnum reticulatum* Dub. (haud Dz. et Molkb.) in Pl. Zollinger. No. 1580.

*Patria.* Java: Zollinger.

Ab *H. reticulato* simili notis litteris cursivis impressis distinctissimum.

β. Folia longe acuminata.

42. **H. subdenticulatum** C. Müll.; *monoicum*; ramis semper patentibus vix flexuosis regulariter pinnatum tenuissime complanatum, foliis valde inflectentibus deorsum utrinque subsecundum, pallidum scariose firmum; folia caulina seniora angusta, lanceolata, longe et falcate acuminata, planiuscula, subscariosa, superne denticulata, cellulis densiusculis sordide pellucidis, utriculo primordiali plerumque repletis, nervis obsoletissimis pallidis; juniora parum chlorophyllosa; perich. late lanceolata, longissime filiformi-acuminata, parum falcata, obsolete denticulata, enervia, elongate areolata; pedunculus, theca et peristomium *H. Pöppigiani*; operculum turgide et depresso cupulatum, oblique rostratum submamillatum.

*Acosta Swartzii* C. Müll. in Pl. Kegel. Linn. XXI. p. 191.

*Patria.* Insula Trinidad, Moruga 20. Octbr. 1847: Crüger; Portorico: Bertero. Surinam, locis humidis apricis pr. Paramáribo: Kegel, Weigelt.

Flos masc. minutus, foliis lanceolato-acuminatis. Notis cursive impressis ab *H. Pöppigiano* differt.

43. **H. conostegum** C. Müll.; *monoicum*; *H. subdenticulato* simillimum, sed irregulariter pinnatum, ramis siccitate distincte curvatis flexuosis tenerioribus subcontortis lutescentibus hic illic fuscidulis, humore patentibus; folia obsolete denticulata saepe integerrima; pedunculus, theca et peristomium *H. Pöppigiani*; operculum turgide conicum acutum.

*Leskea (Omalia) rutilans* β. *Portoricensis* Brid. II. p. 332, e spec. imperfectis Hb. Brid. forma flaccidior videtur.

*Patria.* Cuba: Döring; Portorico: Bertero.

Incertae sedis.

44. **H. argute-serratum** C. Müll.; *monoicum*; caulis declinatus, inferne simplex, superne subfastigiatis ramosus, ramis brevibus complanatis pinnatis; folia caulina remota conspersa, patentia v. subsquarrosa, subcordata breviter acuminata, serrulata, caviuscula, binervia, ramea

*disticha ovato-lanceolata acuta argute serrata*, nervis infra medium dissolutis, omnia pallide viridia, e cellulis linearibus laxiusculis areolata; perich. ovate lanceolata acuminata, intima in acumen subulatum flexuosum producta, hyalina, laxius reticulata; theca in ped. purpureo tortili laevi longiusculo apice curvato horizontalis, *oblonga* aequalis, badia; perist. d. int. perforati lanceolato-subulati lutescentes, ciliis binis hyalinis subulatis articulatis interjectis. †.

*Hookeria Sellovii* Hsch. Fl. Bras. I. p. 66.

*Patria.* Brasilia: Sellow.

*H. hookerioidi* maxime affine ab auctore declaratur, differt autem notis laudatis.

Subsectio II. **Euomalia.** Caulis plus minus robustus, *dichotome divisus*; folia *plerumque angustius reticulata*, symmetrica laevia, rarius secunda, 1—2 nervia.

*Entodontes* generis *Neckerae* optime referentes, et a *Vesiculariis* notis cursive impressis, a *Taxicaulibus* statura robusta distantes.

### I. *Folia uninervia.*

#### a. *Folia integra*

45. **H. Berteroanum** Mont. (Ann. d. sc. nat. 1845. 4. p. 89.); *dioicum*; caulis laxissime cespitosus repens *elongatus* vage ramosus, ramis brevibus v. *elongatis remotis vix ramulosis* flexuosis flaccidis *anguste complanatis sciuroideis lutescentibus nitidis*; folia caulina amoene conferta, humore patula, e basi *rotundate contractâ late ovato-acuminata*, acumine brevi, caviuscula estriata, margine erecto *integerrimo*, nervo tenui viridi ultra medium evanido, cellulis *angustissime linearibus conflatis vix conspicuis amoene lutescentibus*, alaribus *vix ullis quadratis ad basin infimam intractam positis*; perichaetialia exserta, longiuscule convolutacea, breviter acuminata, recta, enervia, cellulis basi laxissimis, superne conflatis, omnibus tenerrimis pallidissimis; theca in ped. longiusculo rubro gracili laevi inclinata cernuo-ovalis, late annulata, operc.

conico brevi; perist. d. ext. pallidi, apice subpunctulati, integri, interni aequilongi pallidi solidi, laeves, ciliis parum brevioribus 2—3 albis subnodosis.

*Patria.* Chile, locis non designatis legit Pöppig; prope Quillota in collibus sylvaticis herbidis m. Sept.: Bertero.

Species pulcherrima, notaculis pulchris jam facile distincta, *H. Megapolitano* habitu haud dissimilis.

46. *H. seminerve* C. Müll.; *monoicum*; caulis cespitosus prostratus pallescenti-viridis splendidulus *anguste complanatus*, subsciuroideus, ramis dichotomis simplicibus v. pinnulatus; folia caulina *sicca et madefacta dense imbricata, e basi subovata lanceolatâ in acumen longum piliferum attenuata, valde symmetrica, basi haud impressa*, margine erecto *integerrimo*, nervo ad medium evanido carinato, cellulis elongatis laxiusculis virescentibus, alaribus *multis planis laxe quadratis intus granulosis*; perich. e basi late vaginante laxissime et tenerrime reticulata multo latiore enervi latiuscule acuminata vix reflexa integerrima; theca in ped. brevi laevi rutilante erecta anguste oblonga exannulata fuscidula parvula, operc. *conico obtuso brevi recto*; perist. d. ext. anguste lanceolati lutei breves dense trabeculati, int. flavidi subpertusi angusti, ciliis *singulis rudimentariis* interpositis.

*Helicodontium seminerve* Schw. Suppl. III. II. 2. in indice! — *Leskea seminervis* Kze. in Pöppig. Pl. Chil. Exs. I. No. 273. — Schw. Suppl. III. II. 1. t. 273.

*Patria.* Chile, prope Concon in convalli „los Chorillos” ad cort. arborum majorum ideoque rarum: Pöppig in societate *Barbulae scabrinervis* 1827. Sept. legit.

Ab *H. serrulato* et affinibus notis laudatis primo adpectu differt. *H. trichophoro* simillimum.

47. *H. Peruvianum* Mont. (Voy. Bonite. Crypt. t. 150. f. 2.); caulis gracilis flexuosus, ramis brevibus *distichis patentibus, subtus radiculosis, arcte repentibus*; folia *dimorpha*: caulina ovato-lanceolata laxis, ramea ovata concava acuminata dense imbricata, seminervia, in-

tegerrima; perich. conformia enervia; theca urceolata inaequalis subhorizontalis, operc. conico-acuminato obtuso, dimidio breviori. †.

*Patria.* Ad ligna decorticata carie consumpta arctissime totum adrepens in viciniis Guayaquil regni Peruviani: Gaudichaud.

Ex auct. dispositione foliorum *H. radiculoso* simile.

48. **H. Tavoyense** Hook. (in Wallich. Catal. No. 7655.); repens prostratum vage ramosum, gramineo-viride lucidum, brevissime, *subcomplanatum*; folia bifaria, densiuscule imbricata, *ovata acuta*, plana *flaccida patentia* integerrima seminervia; theca in ped. brevi *horizontalis* parvula oblonga, breviter conico-operculata; perist. int. imperforatum, ciliis singulis interjectis. †.

Harvey in Hook. Ic. Pl. Bar. t. 24. f. 1. — Cum diagnosi in Lond. Journ. of bot. 1840. p. 19.

*Patria.* India Orientalis, Tavoy et Penang.

Species non satis nota.

49. **H. Boryanum** Schw. (Suppl. I. II. p. 207.); caulis decumbens bipinnatus vel tripinnatus, interdum subsimplex depresso-planus sesuncialis, ramis aequilongis, ramulis attenuatis, pluribus simplicibus, nonnullis subpinnatus; folia caulina bifaria imbricata, subquadrifaria, ovata obtusa, sub apicem rotundata, concava, aliquando striis submarginalibus totum fere folium obtegentibus notata, flavescentia, nervo debili vix ultra medium pertingente, tenuissime et fere inconspicue subrotundo-areolata. †.

Brid. II. p. 393.

*Patria.* Insula Bourbonis: Bory St. Vincent sterile legit.

b. *Folia denticulata.*

α. *Folia laevia haud undulata.*

†. *Pedunculus laevis.*

50. **H. rotundifolium** Brid. (II. p. 768.); *dioicum*; cespites depressi viridissimi laxè intricati; caulis tenellus

laxissime distiche foliosus parce dichotome divisus; folia caulina e basi *brevi angustiore haud impressa late rotundato-ovata breviter acuminata* caviuscula, margine *inferne convexo, superne subdenticulato*, nervo ad medium evanido carinato unico integro, cellulis *ubique amplis laxis pellucidis, utriculo primordiali ad parietes flexuoso*; perich. pauca, vaginantia acuminata, *integra*, enervia, *laxissime pellucide reticulata, tenerrima*; theca in ped. *brevi rutilante laevi recto subinclinata turgide ovata pallida, annulata, operc. longe oblique subulato*; perist. *H. serrulati*, ciliis internis interjectis binis.

*H. confertum*  $\beta$ . *rotundifolium* Brid. H. p. 407.

*Patria.* Ad lapides et inter fruticeta in opacis umbrosissimis arcis Heidelbergensis, sociis *H. depresso, conferto, Algiriano et murali*: A. Braun detexit; locis iisdem prope Monachium, lateres circa Harlaching obtegens: Sendtner, in Nagelfluhe prope „den Kalköfen oberhalb Maria - Einsidl“: W. Gumbel; prope Argentoratum Kneiff et pr. Salisburgum Sauter legisse dicuntur; in Delphinatu a Déjean lectum Hb. Bridel. habet. — *Octobri et Novembri.*

Ab *H. conferto* characteribus cursive impressis longe differt et pulchella species. Ab *H. serrulato* affinissimo oculis nudis colore viridissimo jam distinguitur.

51. *H. serrulatum* Hdw. (Sp. Musc. 1801! p. 238. t. 60.); *monoicum*; caulis laxo cespitosus decumbens dichotome divisus v. pinnulatus vage ramosus, pallide viridis; folia caulina *laxe disticha subpatentia, ovato-lanceolata, plus minus acuminata, caviuscula, margine erecto serrulato, nervo tenui ultra medium evanido*, cellulis elongatis *angustis*, alaribus laxo quadratis pellucidis *indistinctis infima basi utrinque nervi ventricose impressis*; perich. e basi vaginante enervi *laxius reticulata integerima longe subreflexe tenuiter acuminata subdenticulata*; theca in ped. laevi rutilante plus minus elongato apice incrassato *horizontalis cernuo-oblonga brevicolla, late annulata*, operc. conico subulato obliquo; perist. d. ext. an-



gustiuscule lanceolato-acuminati rufescentes dense trabeculati, int. in membrana alta flavida angusti subpertusi, ciliis *tribus teneris aequilongis* albidis.

Brid. II. p. 390.

*Patria.* America septentrionalis, ubi Mühlenberg primus legit.

**52. H. subclavatum** Hmp. (in litteris!); *monoicum*; *H. serrulato* simillimum, sed folia *pallida*, *haud chlorophyllosa*, *angustissime reticulata*, *vix conspicue denticulata*; perich. *subintegerrima stricta*; theca *longissime pedunculata*, *multo minor*, *inclinata*, *non arcuata*, *gibbose ovalis brevis*.

*H. radicale* Hsch. in Musc. Sieber. Nov. Holl. No. 2!

*Patria.* Nova Hollandia: Sieber.

**53. H. Javanicum** Bél. (Voy. dans l'Indie or. Bot. II. Crypt. p. 88. t. 10. f. 1.); *monoicum*; *H. serrulato* simile, folia *laxissime disticha*, e basi *angustiore vix impressa longiuscule ovato-lanceolato-acuminata denticulata*, *laxe areolata*; perich. *longissime acuminata laxius reticulata*; theca in ped. *gracili rutilante laevi mediocri nutans minute oblonga aequalis operculo et peristomio H. serrulati*, ciliis *internis binis interpositis*.

*H. pellucidum* Dz. et Molkb. Ann. d. sc. nat. 1844. 4. p. 308.

*Patria.* In Javae sylvis humidis altioribus primus legit Bélanger, cujus specimina quoque examinavimus. E Java et Sumatra habuerunt Dozy et Molkenboer.

**54. H. senodictyon** C. Müll.; *monoicum*; *H. serrulato* simillimum, *valde depressum et anguste complanatum breviter subpinnatum*; folia *anguste lanceolato-acuminata*, *breviter angustissime et densissime areolata*, *subdenticulata*; theca in ped. *mediocri apice vix vel parum incrassato*, operculo *brevi conico tenerrime oblique aciculari*; perist. intern. ciliis **1—2** interpositis.

*Patria.* Prom. b. spei, in sylva primaeva prope Krakamma in districtu Uitenhagen: Ecklon 1832, Julio.

Planta habitu hookerioidea.

55. **H. brachypterum** Hsch. (Linn. XV. p. 142.); caulis repens debilis pinnato-ramosus, ramis patentibus simplicibus pennaeformibus brevibus; folia caulina distichacea patentia *remotiuscula oblique inserta, lanceolata obliqua acuminulata, plana, serrata, pallide viridia*, nervo obscuriore ultra medium evanido, cellulis anguste linearibus; perich. imbricata, apicibus patentissimis, externa minora ovato-lanceolata acuminata integerrima enervia, interiora sensim longiora, basi late vaginata *repentine angustata*, acuminata, laxe reticulata; theca in ped. longiusculo laevi purpurascente cernua *pendula* brevis oblongo-ovata brunnea; perist. d. ext. ferruginei, superne albicantes, int. lutescentes perforati, ciliis binis hyalinis brevioribus articulatis. †.

*Patria.* Prom. b. spei, inter Outniqualand et Langekloof prope Roodemuur in sylva, alt. 1500 pedum: Drège 1831. 25. Oct.

*H. senodictyo* affine, notis tamen expositis diversum videtur.

56. **H. Sellowii** Hsch. (Fl. Bras. I. p. 79.); *monoicum*; *H. serrulato* simillimum, *valde depressum et complanatum*, longe vagum; folia caulina basi vix impressa, *ovato-acuminata, laxius reticulata*; theca *brevis urceolato-ovata, haud cernua*, sicca ore maxime coarctata longipedunculata; perist. int. ciliis 2—3 interpositis.

*Patria.* Brasilia, Monte Video: Sellow; Rio Janeiro: Beske.

57. **H. Huitomálconum** C. Müll.; *monoicum*; *H. Sellowii* simillimum, sed robustius, folia *multo majora, late ovata longe acuminata, argute serrulata*, basi vix impressa; perich. *longissime acuminata*, laxius reticulata, subdenticulata; theca in ped. *longissimo* crassiusculo *erecta, ob pedunculum arcuato-flexuosum deorsum spectans, longiuscule cylindrica*, ore maxime coarctata; perist. *multo robustius et longius*, internum valde hians, ciliis binis longis interjectis.

*H. serrulatum* Hsch. in Musc. Mexic. No. 1095.

*Patria.* Mexico: Deppe et Schiede, prope Huitomalco.

58. **H. campylocarpum** C. Müll.; *monoicum*; *H. Sellowii* simillimum, sed folia caulina e basi vix impressâ *valde inaequalia*, ovato-acuminata, *plerumque implano-complicata*; theca in ped. graciliore *angusta valde arcuata* horizontalis, operc. *depresso conico prominente*, longe oblique aciculari; perist. *robustius*, internum *valde hians*, ciliis binis brevioribus interpositis.

*H. Sellowii* C. Müll. Linn. XIX. p. 219. Hampe l. c. XX. p. 85.

*Patria.* Venezuela, Caripe: Moritz No. 77.

59. **H. Gaudichaudii** Mont. (Ann. d. sc. nat. XIX. 1843. p. 238.); *monoicum*; caulis intricatus longe repens vage pinnatim ramosus complanatus latiusculus inordinate distiche foliosus sordide viridis; folia caulina laxe disposita patentissima, *latissime ovato-acuminata*, caviuscula, toto ambitu *distincte serrulata*, nervo dimidiato, margine erecto, cellulis *breviusculis laxis* pellucidis, basi amplioribus, apicem versus sensim brevioribus; alaribus ad infimae basis alam extremam *ventricosis*; perich. ext. recurva, enervia; theca in ped. mediocri rubro laevi *minuta anguste cernuo-oblonga* horizontalis, operc. e conico longe aciculari obliquo; perist. int. ciliis 2—3 interpositis.

Cum icone in Voy. Bonite. Crypt. t. 150. f. 1.

*Patria.* Insulae Sandwich, ad cort. arborum: Gaudichaud.

Ab *H. serrulato* et affinibus characteribus accuratius datis facillime distinguitur.

60. **H. vagans** Harvey (in Hook. Ic. Pl. Rar. t. 24. f. 2.); caulis debilis vage pinnatus; folia subbifaria patentissima distantia, planiuscula, latiuscule *ovata obtusiuscule acuta*, margine supra basin usque ad apicem *dense grossiuscule serrato*, nervo ante apicem evanido, cellulis elongatis pellucidis mollibus, alaribus vix *ventricosis* laxioribus amplis indistinctis; theca *oblonga horizontalis*, operc. *longirostro obliquo*.

*Patria.* Nepal: Wallich.

Fructum non vidimus. *H. serrulato* simile.

Non satis nota.

61. *H. conchophyllum* Tayl. (Lond. Journ. of bot. 1848. p. 195.); monoicum; caulis decumbens irregulariter pinnatus, ramis complanatis; folia caulina laxè imbricata patentia subdisticha ovato-lanceolata sensim acuminata, nervo abrupto dimidiato, margine plano basi parum reflexo subdenticulato; perichaetia conspicua pallida; theca in ped. laevi anguste oblonga cernua, operc. rostrato thecam subaequante; perist. d. int. perforati, ciliis binis interpositis. †.

*Patria.* Monte Pichincha: W. Jameson, Majo 1847.

Fide auctoris ab *H. Megapolitano* proximo foliis angustioribus, haud cordatis sensim acuminatis pallidioribus patentioribus refugit.

62. *H. radiatum* Schw. (Suppl. I. II. p. 204.); caulis uncialis erectus unum alterumve ramum edens; folia bifariam imbricata remotiuscula fere disticha lanceolata planiuscula, toto ambitu acute serrata, flavescenti-viridia, nervo dimidiato concolore, tenuissime lineari-areolata; perich. lanceolato-acuminata longiora subdentata; theca in ped. subbiunciali erecto apice incurvo tortili ferrugineo pendula subaequalis ovato-cylindrica brunneo-fusca. †.

*Isothecium radiatum* Brid. II. p. 358.

*Patria.* Insula Bourbonis.

Cui affine?

††. *Pedunculus scaber.*

63. *H. scabrisetum* Schw. (Suppl. III. II. 2. t. 281.); monoicum; caulis repens, vage ramosus, pallide virens lutescens; folia caulina remotiuscula, vix distincte bifariam imbricata, lanceolato-acuminata angusta, denticulata, caviuscula, margine erecto, nervo ad medium evanido, cellulis elongatis angustiusculis pellucidis; perich.

triplo longiora, ex ovato longissime acuminata breviner-  
via; theca in ped. breviusculo *scabro subinclinata oblonga*  
*parvula*, ore contracta, operc. *conico brevi obtuso*; perist.  
d. int. haud pertusi, ciliis singulis brevioribus interjectis. †.

*Leskea remotifolia* Hook. in litt. ad Schwägr.

*Patria.* Nepal.

β. *Folia undulato-crispatula.*

64. **H. acutifolium** Hook. et Wils. (Lond. Journ.  
of bot. 1844. p. 553.); caulis prostratus robustiusculus,  
subcompressus lutescens vage pinnatim ramosus, ramis  
subtruncatis brevibus; folia caulina dense imbricata, sicca  
undulato-crispa, e basi parum impressa late ovato-acu-  
minata, concava, subplicata, robusta longiuscula, mar-  
gine latiuscule revoluta denticulato, nervo ultra medium  
evanido, cellulis elongatis pellucidis, alaribus vix con-  
spicuis.

Cum ic. in Fl. antarct. I. p. 138. t. 60.

*Patria.* Insula Campbelli antarctica: Joseph Dal-  
ton Hooker in exped. antarct. 1839—1843. legit.

*H. undulato* habitu simile, sed foliis uninerviis primo  
adspectu differt.

## II. *Folia binervia.*

### A. *Folia acumine recto v. reflexo.*

#### a. *Theca erecta.*

65. **H. denticulatum** L. (Sp. Pl. p. 1588.); *monoi-*  
*cum*; laxe et late cespitosum prostratum, ramis latiuscule  
complanatis basi divisis longiusculis subattenuatis viridis-  
simis splendentibus; folia caulina laxe conferta *plana*, e  
*basi caviuscula asymmetricâ* late ovata obtuse acuminata  
*subobliqua*, margine *basi hic illic paulisper revoluta*, apice  
obsolete denticulato v. integro, nervis latis brevibus in-  
aequalibus, interdum subobsoletis, cellulis elongatis mol-  
libus chlorophyllosis v. pellucidis plus minus laxiusculis,  
alaribus decurrentibus laxis; perich. caulinis simillima, in-  
terna convolutacea; theca in ped. stricto purpureo laevi

longo, plus minus elongate cylindrica erecta vel demum cernua, ore majori constricto, pallide olivacea, dein fuscens, leptodermis, operc. conico acuto recto, annulato; perist. d. ext. longi, late lanceolati subulati pallide lutei dense trabeculati, int. aequilongi carinati albidi haud vel vix perforati, ciliis paullo brevioribus 2 — 3 tenuissimis remote nodosis.

*Leskea denticulata* Timm Fl. Megap. n. 803. — *Fissidens denticulatus* Willd. Prodr. Fl. Ber. n. 922. — *H. Stereodon denticulatus* Brid. II. p. 551. — *H. denticulatum*, pinnatum, pinnulis duplicibus recurvis. Dill. Musc. p. 266. t. 34. f. 5.

*Leskea flaccida* Brid. II. p. 308; forma humilis, foliis parvis obtusiusculis acuminatis. Ad rupes Americae septentrionalis: Torrey.

*Hypnum Stereodon sylvaticus* Brid. II. p. 550. — *Hypnum sylvaticum* L. Mant. Pl. II. p. 310. — *H. Stereodon cavifolius* Brid. II. p. 556. — *Hypnum denticulatum*, pinnulatum, pinnulis rarioribus simplicibus. Dill. Musc. p. 267. t. 34. f. 6. — Ex obs. Cl. Spruce in Musc. Pyr. No. 27. Ann. and. Mag. of Nat. Hist. 1849. infloresc. dioica ab *H. denticulato* differre dicitur; nos ipsi monoicum semper observavimus.

*Hypnum obtusatum* Wahlenb. Fl. Lapp. p. 371. — *H. obtusifolium* Brid. Mant. Musc. p. 153. — *H. Donianum* Sm. Fl. Brit. III. p. 1286 et Engl. Bot. t. 1446.

*Platyhypnum laetum* Schimp. in litteris! Perist. interni cilia nulla vel bina. Vestigia specierum synonymarum acuta invenire nequivimus; nam partes omnes valde variant.

*Patria.* In locis umbrosis humidis, ad terram et saxa, per Europam totam et Americam septentrionalem; ex insula antarctica Eremitae retulit J. D. Hooker. — *Ex hyeme usque ad aestatem et ultra fructificat.*

Ab *H. trichophoro* simillimo notis laudatis differt.

**66. *H. trichophorum*** Spruce (Musc. Pyr. No. 25.); monoicum; *H. denticulato* simile, sed densius cespitosum, ramis anguste complanatis, folia magis imbricata, late ovata, acumine flexuoso tenui piliformi terminata, ubique profunde concava, implana, symmetrica, margine plus minus revoluta integerrimo, cellulis angustissimis brevioribus; perich. late ovata vaginantia sinuato-flexuosa reflexiuscula, multo tenerius et basi laxa reticulata, longe acuminata; theca in ped. gracillimo purpureo erecta, e

*collo longiusculo subclavate ovalis*, fuscescens leptodermis, operc. conico; perist. albidi d. ext. *angusti articulato-trabeculati*, int. *perforati*, in membrana *brevissima* positi, ciliis *rudimentariis* binis.

*Platyhypnum piliferum* Schimp. in litt. — *H. trichophorum* Spruce in Musc. Pyr. No. 25. Ann. and Mag. of Nat. Hist. 1849. — *H. orthocarpum* Ångstr. Disp. Musc. Scand. 1842; nomen Hornschuchiano junius. — *Hypnum denticulatum* var. *Donianum* Hook. in Drumm. Musc. Amer. No. 165. — *Leskea pilifera* Sw. Hb. Spruce in Lond. Journ. of bot. 1846. p. 418.

*Patria.* Norvegia, Suecia, Lapponia et Finlandia, ubi haud raro viget; in Pyrenaeis: Spruce; in America sept., ubi in rupib. ad Portage River legit Drummond.

Species pulchella distinctissima.

**67. H. orthocarpum** Hsch. (Regensb. bot. Zeit. III. p. 520; s. diagnosi); *dioicum*; dense cespitosum erectum saepius *breviter dichotomum anguste compressum fragile*, *haud splendens*, laxifolium molle, *apice subcuspidato gemmaceo-clauso*; folia pallide viridia *sicca et madefacta erecto-appressa*, e basi angustiore *symmetricâ cochleariformi-ovata et concava*, *obtusa brevissime acuminata*, margine convexo subintegerrimo, nervis longiusculis *sublatis aequalibus* basi conflatis, cellulis longis laxis mollibus pellucidis pallide virentibus, alaribus laxis elongate quadratis decurrentibus; perich. convolutaceo-vaginantia distinctius acuminata tenuiora; theca in ped. elongato recto purpurascente laevi *valido molli* elongate cylindrica angusta erecta v. vix inclinata, ore coarctata, fuscescens leptodermis; perist. d. ext. *H. denticulati*, int. albidi.

*Isothecium orthocarpum* Brid. II. p. 387, nomine solo memoratum.

*Patria.* Chile, ad Talcahuano: Adalbert de Chamisso 1816.

Fructum imperfectum tantum vidimus. Species inter congeneres notis laudatis distinctissima pulchra, *H. denticulato* haud dissimile.

**68. H. subcompressum** C. Müll.; *dioicum*; longe prostratum vage ramosum, ramis *elongatis flaccidis fle-*

*xuosis* compressis luteo-viridibus, angustis multis; folia caulina distichaceo-imbricata, *siccitate subinflectentia* v. *subhomomalla*, e basi angustiore ovato-acuminata, acumine brevi reflexo denticulato, profunde concava, margine basi sola subreflexo, nervis aequalibus latiusculis flavidis subbrevibus, cellulis anguste breviter linearibus virentibus, alaribus *permultis quadratis pellucidis intus granulosus perfecte entodontoideis*; perich. longius lanceolato-acuminata subvaginantia, basi laxe pellucide reticulata; theca in ped. mediocri purpureo laevi tenui *perfecte erecta haud arcuata anguste cylindracea*, badia.

*Leskea subcompressa* Br. et Sch. in Musc. Abyssin. Schimper. Coll. II. No. 581. b.

*Patria.* Abyssinia: W. Schimper.

Fructum imperfectum tantum vidimus. *Entodontibus* ex habitu et foliorum structura maxime similis, sed e peristomate rudimentario observato certe huc pertinens et *H. Haldaniano* simile.

69. **H. Haldanianum** Grev. (Ann. of the Lyc. of Nat. Hist. of New-York 1825. p. 275. t. 23.); *monoicum*; late cespitosum prostratum vage ramosum, ramis elongatis *breviter subpinnatis subcompressis saepius patentifoliis* laete viridibus v. lutescentibus angustis; folia caulina subdistichaceo-vel patenti-imbricata, late ovato-acuminata, acumine breviusculo recto v. reflexiusculo, concava, margine ubique erecto integerrimo, nervis plus minus distinctis tenuibus longiusculis v. brevioribus, cellulis angustissime linearibus pallidis, *basi interdum flavidis*, alaribus multis laxe quadratis pellucidis v. intus granulosus v. *flavescentibus ventricose impressis*; perich. multo latiora majora et *longissime reflexe filiformi-acuminata*; theca in ped. elongato valido purpureo laevi rigido *erecta anguste longiuscule cylindracea arcuata badia*, operc. conico oblique rostrato arcte adhaerente, annulo nullo; perist. d. ext. longe subulati lutei carnosissimi vix cristati, int. pertusi *aequilongi albidissimi rugulosi* in membrana valde reticulata positi, *ciliis vix brevioribus concoloribus et rugulosis singulis v. binis*.



*Hypnum cylindricum* Bruch in Rabenhorst. Deutschl. Krypt. Fl. II. p. 273! 1848. — *H. cupressiforme* var. Bals. et De Not. in Musc. Mediol. Exs. II. 1834. No. 29! — *H. Badense* A. Braun l. c.! — *H. pulchrum* Hook. in Drumm. Musc. Amer. n. 180! 1828. — *H. Cooleyanum* Spreng. 1833. fide Sullivant. — *H. curvirostrum* Brid. II. p. 482! 1827.

*Patria.* In Canada detexit Dr. Haldan; dein ad truncos arborum Canadae superioris legit Drummond; in monte Hosack reipubl. Massachusetts in lignis putridis arborumque dejectarum cortice: Cooley; in insula Terre Neuve: La Pylaie; in sylvis montanis Americae foederatae, humum truncosque prostratos habitans e Sullivant haud infrequens reperitur. In locis similibus et ad terram Pyrenaeorum circa Bagnères de Bigorre, in sylvis editis siccioribus: Spruce, W. P. Sch. 1847. auctumno; prope Karlsruhe et Heidelberg Germaniae occidentalis: A. Braun, qui in solo humido limoso collegit; in Bavaria: Sendtner; in alpibus Pinzgoviae: Mielichhofer et Sauter fide Rabenhorst.; in alpib. Julicis, in Mogenza alt. 3 — 4000': Sendtner 8. Aug. 1841. In sylvis della Merlata prope Mediolanum Italiae: De Notaris.

Notis cursive impressis species pulcherrima.

**70. H. nemorosum** Koch (in Brid. II. p. 422.); *monoicum*; late cespitosum, longe prostratum attenuate breviter pinnatum laete viride splendidulum firmum, ramis dense approximatis brevibus plus minus erecto-confertis compressis attenuatis; folia caulina dense appressa, e basi brevissima reflexâ ovato-lanceolata, in acumen latiusculum vix vel semel tortum grosse serratum producta, concava, margine erecto, superne denticulato, nervis breviusculis tenuibus, cellulis brevibus angustis virentibus, basi flavescentibus, alaribus superioribus paucissimis minutis incrassatis, inferiorib. crebrioribus quadratis, hyalinis v. subflavidis, teneris v. incrassatis, planiusculis; perich. H. Haldaniani, sed denticulata; theca brevior crassior, operculo conico acuto recto; perist. d. ext. robustiores magis cristati, int. flavidi laeves.

*Hypnum subrectifolium* Sulliv. (non Bridel!) in Musc. Allegh. No. 15!

*Patria.* In Germania cisrhenana prope Kaiserslautern ad terram in nemorosis detexit Koch; in Bavaria superiore ligno putrido adhaerens, in pineto catarractae vicino prope Schliersee et ad „Hohe Tanne prope Schlehdorf” m. Octobr. et Novembris: Sendtner. In jugis Iron Mountains dictis Virginiae et Carolinarum in ligno carioso: Sullivan t.

Ab *H. Haldaniano* proximo notis laudatis differt.

**71. *H. affine*** Hook. (Kunth. Synops. Pl. Aeq. p. 64.); *monoicum*; decumbens prostratum vage pinnatum ramosum compressum lutescens, ramis remotiusculis subpatentibus attenuatis; *ramuli defoliati foliis spinaeformibus minutis numerosis scaberrimi spinosi*; folia caulina dense conferta erecta, concava, ovato-lanceolata, in acumen strictiusculum latum planum spinuloso-serratum producta, margine basi sola parum reflexo, nervis obsoletis, cellulis pallidissimis angustissime linearibus, basi flavidis, alaribus paucis quadratis pachydermibus flavidis parum impressis; perich. erecta majora profunde concava et plicata, basi laxius et flavide reticulata; theca in ped. elongato purpureo laevi subvalido stricto suberecta cylindracea parum arcuata badia nitida exannulata (?), operc. conico acuminato recto; perist. robusti magni d. ext. parum cristati fuscescentes lati, int. aequilongi angustiusculi flavidi solidi, ciliis aequilongis capillaribus albidis binis.

Brid. II. p. 424. — Schwägr. Suppl. III. II. 2. t. 283.

*Patria.* In jugis Andium et in umbrosis montis Quindiu juxta la Quebrada de Toche, regione temperata, alt. 1050 hexapodum: Humboldt et Bonpland.

*H. Haldaniano* et nemoroso affine sed distinctissimum.

b. *Theca inclinata.*

c. *Folia breviter acuminata.*

†. *Folia undulata.*

**72. *H. robustum*** Hook. (in Drumm. Musc. Amer. No. 199.); *dioicum?* caulis repens, ramis robustissimis

elongatis decumbentibus *latissimis planissime compressis*, ramulis obtusis, e viridi lutescentibus subsimplicibus plus minus elongatis patentibus similibus inaequalibus irregulariter dendroideo-pinnatis; folia dense imbricata distichaceo-appressa, *distincte undulato-crispa et inferne longitudinaliter laeviter plicata, scariosa*, e basi *quam maxime late ovata margine maxime revolutâ late acuminata, acumine ligulato obtusato, supra basin usque ad apicem denticulato-truncatulum dentata*, margine erecto, nervis *latis longiusculis*, cellulis angustissimis subincrassatis viridibus, alaribus *vix ullis*; perich. reflexa albida late vaginantia inferne laxissime reticulata; theca in ped. crasso rigido ascendente purpurascente turgide et cernuo-cylindracea *breviuscula*, operc. *conico obtuso mammillato*.

*Hypnum Stereodon robustus* Brid. II. p. 635. — *H. robustum* Hook. Musc. Exot. t. 108. et Schw. Suppl. III. II. 1. tab. 261; species haec Menziesiana quoad icones foliis subsecundis differt. An alia species?

*Patria.* In plaga occidentali Americae septentrionalis: A. Menzies 1793; in terra tract. mont. Rocky Mountains, „on the large hill to the westward of the Height of Land: Drummond.

**73. H. undulatum** L. (Sp. Pl. p. 1589.); *dioicum*; late cespitosum prostratum, ramis elongatis *lycopodioides latis robustis flaccidis compressis attenuatis sulphureo-viridibus subsimplicibus, humore turgescens* vagans; folia caulina polysticha, sed distichaceo-appressa, humore patula, *latissime ovata*, acumine obtuso vel tenui flexuoso brevi terminata, margine erecto, apice subdenticulato, *superne plus minus transversaliter undulata*, nervis inaequalibus longiusculis, cellulis elongatis angustiusculis, basi laxioribus, subpellucidis; perichaetia angusta, foliis vaginantibus longius acuminatis multo laxius et tenerius reticulatis, basi flavidis; theca in ped. longissimo ascendente tortili purpureo elongate turgide cylindracea cernua, siccitate ore majori constricta et striata, rufa, operc. cupulato, longe subulato obliquiusculo, annulo lato; perist. maximum, ext. subflavidum, intern. in membrana alta al-

bida aequilongum imperforatum, ciliis longis 3—4 tenuissimis remote articulatis.

Brid. II. p. 397. — *H. undatum* Schrank. Baiersche Fl. II. p. 480. — *H. pennatum*, undulatum, Lycopodii instar sparsum. Dill. Musc. p. 271. t. 36. f. 11. — *Leskea crispa* Schrank. Prim. Fl. Saalzb. n. 835.

*Patria.* In locis umbrosis humidiusculis, praecipue viarum cavarum vel ericetis tam planitierum quam montium sylvestrium totius fere Europae, nusquam commune, sed raro fructificans. Ad Cap. Dissapointment Americae occident. lectum possidemus, quod sterile cum Europaea specie omnino convenit. — *Aestate.*

††. *Folia regularia.*

74. *H. depressum* Bruch. (Regensb. Bot. Zeit. 1824. p. 763.); *monoicum*; depressum *tenellum latiuscule complanatum breviter et fastigiata ramosum* viridissimum; folia caulina disticha patentia laxiuscule imbricata, *angustiuscule ovata breviter acuminata, ubique subdenticulata, concava, margine erecto, nervis longiusculis, interdum obsoletis, cellulis brevibus angustis densis viridissimis, utriculo primordiali serpentino repletis, apicalibus multo minoribus, saepe incrassatis, alaribus vix ullis quadratis minutis granulosis*; perich. longe acuminata, latius vaginanta, tenera, denticulata; theca in ped. *breviusculo inclinata, breviter turgide ovalis, ore constricta, pachydermis, operc. conico acuto recto, annulata*; perist. *H. denticulati*, sed brevius et ciliis int. *solitariis*.

*Hypnum confertum*  $\zeta$  *depressum* Brid. II. p. 765. — Ab *H. conferto* nervis binis jam differt.

*Patria.* Prope Bipontum detexit Bruch, in lapidibus vetustis umbrosis arcis Heidelbergensis ruinosae, inter fruticeta horti aulici Carlsruhiae, circa arcem Badenae, pr. Badenweiler: A. Braun, pr. Bayerbrunn circa Monachium: Sendtner, pr. Ratisbonam: Fürnrohr; ad rupes calcareas Pyrenaeorum, Vallon de Serris: Spruce. — *Hyeme.*

Ab *H. denticulato* notis cursive impressis longe recedit.

**75. H. Langsdorffii** Hook. (in Kunth. Synops. Pl. Aeq. I. p. 62.); caulis repens ramosus; folia disticha planiuscula ovato-lanceolata subacuminata enervia (?) *apice serrata*; theca ovata *cernua*, operculo *longe rostrato*. †.

Brid. II. p. 391.

*Patria.* Brasilia, in lignis putridis ad ripam Orinoci, prope Maypure: Langsdorff in Hb. Swainson.

*H. denticulato* ex auctore simillimum, sed characteribus laudatis distinctum.

**76. H. lucidum** Hook. et Wils. (Lond. Journ. of bot. 1844. p. 554.); caulis ramosus humilis; folia imbricata erecto-patentia ovato-acuminata apice attenuata integerrima margine reflexa, basi binervia; theca in ped. laevi *cernua* ovato-oblonga. †.

*Patria.* Insula Eremitae ad Cap. Horn: J. D. Hooker.

Ex auct. *H. Seligeri* simile, sed characteribus ad *H. adnatum* Hdw. propius accedens; ab hocce differt: foliis flaccidis, margine apice reflexis ut in *H. ruguloso*.

β. Folia longe acuminata.

**77. H. Seligeri** C. Müll.; *monoicum*; *H. denticulato* simile, ramis *arcuato-flexuosis*, *apice saepe maxime curvatis*, viridibus v. stramineis; folia caulina laxè imbricata patula, distichacea, *ramea subhomomalla*, *angustiuscule lanceolata*, *in subulam longam subflexuosam producta*, caviuscula, basi plerumque constricta plus minus implana, margine erecto, superne denticulato, nervis tenuibus inaequalibus breviusculis, cellulis ubique aequalibus angustis viridibus densis; perich. latiora vaginantia robustius reticulata, basi fuscescentia; theca in ped. longiusculo purpurascente laevi *arcuato-cylindrica* *inclinata pallide fusca*, *dein subaurantiaca*, late annulata, operc. *cupulato mammillato obtuso*; perist. *H. denticulati*.

*Hypnum Silesianum* P. B. Prodr. p. 70. (1805.) — *H. Silesiacum* al. — *H. (Stereodon) Silesiacum* Brid. II. p. 554. — *Leskea Seligeri* Brid. Musc. Rec. II. II. p. 47. (1801.). — *H. planifolium* Brid. II. p. 411. e spec. auth. Hb. Bridelii sterilibus forma minor videtur.

*Patria.* Ad truncos arborum putridos totius fere Europae, in sylvis montium humiliorum atque editorum. — *Vere.*

Flores masculi solitarii.

78. **H. deplanatum** Schimp. (in Sulliv. Musc. Allegh. No. 50.); *dioicum*; *H. depresso* simillimum, sed latius complanatum, viridissimum, vel fuscescens, fertile tenellum, sterile longius pertractum; folia caulina *majora*, e *basi late truncatâ late lanceolata*, *longiuscule acuminata*, nervis *brevissimis obsoletis*, cellulis *ubique elongatis*, *utrículo primordiali carentibus*; perich. laxissime reticulata albida, margine *maxime inaequaliter grosse ciliato-dentato*; theca in ped. ascendente purpureo breviusculo inclinata *gibboso-cylindracea* brevis ore majusculo constricto, atro-brunnescens; perist. *H. denticulati*, sed minus, d. int. imperforati, ciliis binis brevioribus.

*Patria.* In umbrosioribus ad saxa, terram arborumque truncos, a Canada usque ad Ludoviciam, sat frequens, sed rarissime fructificans: Sullivan t.

c. *Theca nutans.*

79. **H. elegans** Hook. (Musc. Exot. t. 9.); *dioicum?* procumbens *tenellum angustiuscule* complanatum laete viride, ramis *brevibus inaequalibus*; folia caulina disticha densa *anguste ovato-lanceolata integerrima* concava obliquiuscula, margine altero parum involuto, nervis *brevibus tenuibus vix conspicuis*, cellulis linearibus striaeformibus basi laxioribus, alaribus obsoletis pellucidis basillares aemulantibus; perich. *ex ovato longe cuspidata*; theca in ped. *brevi* rufo apice inflexo, punctis imprimis sicco statu scabro *pendula oblonga laevis aequalis* badia, operc. conico acuminato brevi; perist. d. int. ciliis *longissimis tribus capillaribus* interpositis. †.

Schw. Suppl. III. II. 2. t. 282. — *Isothecium elegans* Brid. II. p. 356.

*Patria.* In plaga occidentali Americae borealis, Nootka Sound: A. Menzies.

Ab *H. denticulato* notis expressis differt.

80. **H. chlorophyllum** Hsch. (Fl. Bras. I. p. 89.); *monoicum*; prostratum appressum radicans parce divisum pallide viride nitidum, planissimum; folia caulina distichaceo-imbricata, caviuscula, e basi *reflexe constricta anguste oblongo-acuminata obtusiuscula*, margine erecto integerrimo, nervis brevissimis inaequalibus, cellulis elongatis laxiusculis pellucidis, *alaribus ad latus unicum permultis laxe quadratis pellucidis vel fuscescentibus*; perich. e basi late ovata vaginante laxe reticulata anguste acuminata hic illic grosse dentata; theca in ped. breviusculo purpureo laevi nutans brevis urceolata, operc. conico oblique subulato; perist. *H. denticulati*, sed minus, d. int. externis breviores imperforati, ciliis brevibus solitariis.

*Hypnum Lindenbergii* Hmp. in sched.

*Patria.* Brasilia, Minas Geraës, ad terram: Martius et Hb. Lindenbergl.; insula Trinidad Antillarum, ad St. Anne 18. Decbr. 1847 fertile, Arima: Crüger.

Cellulis alaribus unilateralibus maxime evolutis primo momento sp. distinguenda; *Lepidopilis* aemulans. Flos masc. fem. vicinus turgidus, fol. late ovatis, superne sinuate emarginatis veluti grosse dentatis, acumine brevi recto terminatis, laxe areolatis; anth. eparaphysatis multis valde turgidis.

#### Incerta.

1. **H. concavum** Hook. (in Kunth. Synops. Pl. Aeq. p. 63.); caulis repens flaccidus compressus ramosus, ramis compressis; folia undique imbricata concava ovata obtusiuscula integerrima enervia, pallide viridia, mollia; theca ovata cernua. †.

Brid. II. p. 501.

*Patria.* In sylvis opacis densis, ad ripam fluminis Negro, prope San Carlos, locis temperatis: Humboldt et Bonpland.

B. *Folia mucrone reflexo.*

81. **H. Auberti** Schw. (Suppl. I. II. p. 200. t. 88.); *dioicum*; procumbens elongatum flaccidum lutescens nitidissimum, ramis inaequalibus latiuscule et planissime complanatis simplicibus remotis v. fasciculatis irregulariter ramosum; folia caulina quadrifaria, perfecte distiche imbricata, angustissime cymbiformi-oblonga obtusa, acumine tenuissimo piliformi reflexo-flexuoso, margine erecto integerrimo, nervis brevissimis vix conspicuis, cellulis maxime angustissimis in membranam pallide viridem veluti homogeam conflatis; perich. ovato-acuminata, interiora oblongo-lanceolata; theca in ped. solitario subunciali erecto rufescente anguste subcylindrica, ad horizontem vergens, basi inaequalis; perist. internum ciliis binis tenuissimis.

*H. Stereodon Auberti* Brid. II. p. 556. — *Leskea nitens* ej. Sp. Musc. II. p. 50.

*Patria.* Insula Franciae: Aubert du Petit-Thouars. Insula Bourbonis, in planitie des Chicots et in Piton des neiges: Bory St. Vincent.

82. **H. mucronatum** C. Müll.; *dioicum*; *H. Auberti* simillimum, sed multo angustius complanatum, rigidum robustius, densius foliosum, minus planum; folia caulina late oblonga, apice mucrone brevissimo reflexo terminata, perich. e basi vaginante longe lanceolato-acuminata reflexiuscula, basi laxius reticulata; theca in ped. rigido crassiusculo sublongo rubro subcernuo-horizontalis inaequaliter obovato-cylindracea leptodermis, operculo conico obtuso, annulo simplici; perist. d. ext. late lanceolati pallidi, linea media tenuissima exarati, interni hyalini, ciliis tenerrimis binis vix brevioribus interpositis.

*Patria.* Prom. b. spei, ad Hangklip: Mundt et Maire.

83. **H. Phyllogonium** C. Müll.; *H. Auberti* simillimum, sed luteo-viride, multo densius foliosum, folia latiora, basi magis dilatata, apice brevius pilifera.

*Phyllogonium callichroum* Mont. Ann. d. sc. nat. 1845. IV. p. 87.



*Patria.* Chile: C. Gay sterile legit.

84. **H. politum** Hook. et Wils. (Lond. Journ. of bot. 1844. p. 553.); *tenuissime complanatum; saepe subfiliforme* sed distincte compressum; folia imbricata, *angustissime oblonga, in acumen longum crinitum flexuosum sensim producta*; perich. latiora obtusius acuminata; theca *oblonga suberecta v. horizontalis*; perist. *H. mucronati*.

Cum ic. in Fl. Antárct. II. p. 416. t. 154. f. 2.

*Patria.* Insula Eremitae ad Cap. Horn, fertile, in insula Kerguelen sterile legit J. D. Hooker.

Subsectio III. **Sigmatella.** Caulis angustus pinnatim divisus; folia lineari-areolata, *papillis obtecta*, plerumque binervia.

#### A. *Folia uninervia.*

85. **H. graminicolor** Brid. (Sp. Musc. II. p. 254.); caulis repens, ramis humilibus gracilibus laxifoliis teneris graminicoloribus, apice minute gemmaceo terminatis, indistincte compressis, parce divisis; folia caulina laxe conferta, anguste oblonga lanceolato-acuminata, planiuscula, acumine semel subtorto, margine erecto ubique valde serrulato, nervo tenui ultra medium producto unico, cellulis elongatis angustis densis lutescentibus, ob papillas elevatas sparsas valde tuberculosas, alaribus vix ullis minutissime quadratis.

Brid. II. p. 455.

*Patria.* Pensylvania: Mühlenberg.

E notis cursive impressis species parvula tenella distinctissima, fertilis nondum observata. Ex insula Terre Neuve, ubi ex Bridel vigere dicitur, in ejus herbario non vidimus.

#### B. *Folia binervia.*

a. *Foliorum cellulae papillis ubique dispositis obscurae.*

86. **H. truncatulum** C. Müll.; hermaphroditum; repens prostratum pinnatam tenuicaule; ramis lurido-viridibus v. lutescentibus tenuibus brevibus simplicibus attenuatis subaequalibus compressis; folia caulina densiuscule

imbricata, brevia, latiuscule oblonga ligulata truncatulo-obtusata, caviuscula, margine erecto supra basin dentibus ob papillas saepe duplicatis valde serrulato, nervis tenuissimis flavidis brevibus, cellulis angustissime linearibus dorso tenuissime et valde papillatis; perich. acuminata erose-truncatula subciliate serrulata, crispabilia; theca in ped. elongato laevi rigido rubro subinclinata brevis minuta, turgide ovalis aequalis urceolata v. ore constricta, operc. conico acuminato recto, calyptra glabra; peristomii d. ext. late lanceolati, tenuissime subulati, linea media tenuissima exarati, int. ciliis binis laevibus connatis pellucidis.

*Patria.* Peru: Pöppig.

*Hookeriae pallidae* et affinibus *Callicostellis* structura foliorum haud dissimile, habitu *H. Zollingeriano* affinius.

b. *Foliorum cellulae seriatim punctulatae.*

87. **H. planum** Brid. (Sp. Musc. II. p. 97.); *monoi-cum*; late cespitosum, longissime repens prostratum anguste complanatum irregulariter pinnatum laete viride; folia caulina laxè imbricata, e basi brevissima maxime constricta late ovato-acuminata, inferne concava, superne plus minus planiuscula v. concava, margine erecto subcrenulato, nervis obsoletis, cellulis angustissimis conflatis pallide viridibus seriatim punctulatis, basi saepe flavidis, alaribus superioribus paucis quadratis granulosis, inferioribus parvulis vesiculaeformibus pellucidis v. chryseis; perich. vaginantia magis acuminata, magis papillosa, basi laevia laxè reticulata pellucida, superne eroso-denticulata; theca in ped. longissimo flavido subpurpurascente laevi flexuoso rigido tenui inclinata parva brevis subcerviciformis, ore constricta, brevicolla fuscidula, exannulata, operc. turgide conico aurantiaco; perist. parvi d. ext. lutei, int. flavidi valde compressi aequilongi solidi, ciliis singulis albidis.

Brid. Br. univ. II. p. 394. — Schw. Suppl. III. II. 2. t. 280. pedunculo brevius delineato. — *Leskea* (*Omalia*) *cymbifolia* Brid. II. p. 333! — *L. subpinnata* Brid. II. p. 287 ex parte, specimina in *Pterocarpo Draconis* insulae Guadeloupe lecta!

*β. acuminulatum*; laxius foliosum; folia ovata obtusiuscula breviter acuminata, sordide viridia. *H. acuminulatum* Hsch. Fl. Bras. I. p. 76! — *H. Auberti* herbar. nonnullor.

*γ. flavescens*; flavescens, folia ovata breviter acuminata, superne plica unica subtorta, v. margine plus minus involutaceo.

*Patria.* Hispaniola: Poiteau; Porto Ricco: Bertero; Surinam, ad truncos arborum pr. Mariepaston in sylvis primaevis, Majo, ad lapides locis humidis pr. Paramaribo, Julio 1844: Kegel; Maynas Peruviae: Pöppig. Coll. No. 19. 1831; Var. *β.* in Brasilia ad flumina Amazonum, Tefé et Japura, e. gr. ad oppidum Ega, ubi Martius Decembri et Pöppig 1831 legerunt. Var. *γ.* in insula Trinitatis Antillarum prope St. Joseph legit Crüger 14. Febr. 1848.

Notis illustratis facile discernibile; vulgare.

88. *H. instratum* Brid. (II. p. 394.); *H. plano* simillimum, lutescens, folia caulina *anguste lanceolata* breviter acuminata, concava, *grossius dentata*, *robustius punctata*, cellulis alaribus *superioribus vix ullis*, *inferioribus minutis vesiculaeformibus* subflavidis; perich. longius acuminata; theca in ped. *brevi* crassiore major.

*Hypnum planum β. instratum* Schw. Suppl. III. II. 2. t. 280.

*Patria.* Insula Radack Moluccensis: Gaudichaud.

Ex obs. *Schwägricheni* hermaphroditum v. dioicum esse dicitur.

89. *H. floribundum* C. Müll.; *caulis elongatus filiformis flexuosus* repens *subpinnatim ramosus flaccidissimus*, ramis compressis laxissime foliosis teneris viridibus v. lutescentibus brevibus; folia caulina *subquadrifaria*, sed oculo nudo veluti *bifariam imbricata*, *patentissima*, e basi parum coarctata *subcordata latiore sensim lanceolato-acuminata*, concava, margine infima basi reflexo, *ubique minute serrulato*, nervo tenuissimo dimidiato, cellulis angustissime linearibus, ob papillas tenerrimas dense *seriatis obscuris scaberrimis*, alaribus paucis *minute quadratis*; theca breviter pedunculata erecta ovata, ore

contracta, dein subcylindrica, operc. convexo oblique rostrato, calyptra *sparse pilosa*.

*Leskea floribunda* Dz. et Molkb. Ann. d. sc. nat. 1844. 2. p. 310.

*Patria.* Java, unde auctores et Miquel habuerunt; ad pedem m. Merapi Sept. sterile legit quoque Jung-huhn; praeterea in Sumatra observatum est.

E notis datis distinctissimum.

**90. H. Nepalense** Schw. (Suppl. III. I. 2. t. 226.); *monoicum*; laxe cespitosum decumbens intertextum longe repens, tenellum, ramis *dense approximatis deplanatis teneris* luteo-viridibus subsimplicissimis brevibus pinnatum; folia caulina laxe conferta e basi brevissima valde constricta *latiuscule ovata breviter acuminata*, margine erecto *ubique subserrulato*, nervis obsoletis, cellulis subconflatis pallide viridibus, *basi vix flavescens*, tenuissime *seriatim punctulatis*, alaribus pellucidis parvis *ternis turgidis vesiculaeformibus*; perich. vaginantia longe tenuiter acuminata denticulata, basi laxius reticulata pellucida; thecae in ped. *longissimis purpureis laevibus rigidis tenuibus creberrimis* horizontales cernuo-ovales breviter conico-operculatae brevicollae minutae brunnescentes; perist. minuti d. ext. latere ciliati flavidi, ciliis perist. int. singulis.

*Hypnum punctulatum* Harvey in Lond. Journ. of bot. 1840. p. 18. et ic. in Hook. Ic. Pl. Rar. I. t. 23. f. 10!

*Patria.* Nepal: Wallich.

Notis cursive impressis facile cognoscitur.

**91. H. pseudo-amoenum** Bél. (Voy. dans l'Ind. II. p. 87.); *monoicum*; *tenerrimum tenuissimum* longe repens decumbens pallidum, vage ramosum, ramis *brevissimis subdeplanatis* irregulariter pinnatum; folia caulina *laxe conferta patentissima tenuissima*, e basi parum constricta *angustissime elongate lanceolato-acuminata curvula*, valde concava, margine erecto v. plus minus involutaceo *ubique tenerrime et remote denticulato*, nervis obsoletis, cellulis longiusculis angustissime linearibus pallidis *tenuissime seriatim punctulatis*, basi subflavidis, ala-

ribus *minutissimis pellucidis vix vesiculaeformibus*; perich. *latius vaginantia longius acuminata subrecta, basi laxius reticulata, laevia*; theca in ped. *elongato tenerrimo laevi purpurascete horizontalis minutissime ovalis, subannulata*; operculo *turgide conico acuto brevi recto*; perist. *H. Borbonici*.

*Patria.* Insula Bourbonis, inter *H. Borbonicum* legit Bélanger.

Notis illustratis facile cognoscitur.

c. *Foliorum cellulae papillis sparsis praeditae.*

α. *Cellulae alares vix ullae quadratae.*

**92. H. Cubense** C. Müll.; *monoicum*; *H. pseudo-amoeno* simillimum, sed folia caulina *e basi latiuscule cordate ovatâ sensim longiuscule acuminata strictiuscula, basi concava, margine erecto ubique tenuiter subdenticulato, nervis distinctis breviusculis, cellulis sparse tenuiter papillosis, ubique pallidis, alaribus vix ullis quam maxime minutis quadratis*; perich. *angustissime vaginantia longe filiformi-acuminata subintegerrima laevia*; theca in ped. *elongato tenerrimo purpureo laevi horizontalis minutissime cylindraceo-oblonga macrostoma brevicolla, sicca nutans angustissime obovata ore maximo constricta rufa, operc. conico acuto brevi recto; annulo distincto; perist. minuti d. ext. flavidi, linea media tenuissima exarati, int. lutescentes aequilongi, ciliis singulis brevioribus basi cellulosis albidis.*

*Leskea adnata* Schw. (haud Melch.!) in Pöppig Musc. Cubens.

*Patria.* Insula Cuba: Pöppig, dein Döring 1842. In truncis vetustis sylvarum viget.

A praecedentibus congeneribus ramis tenerrimis jam distat.

**93. H. elegantulum** Hook. (Musc. Exot. t. 84.); *dioicum*; *latissime cespitosum rigidissimum repens vage subpinnate ramosum decumbens latiuscule compressum lutescens, ditissime fructificans; folia caulina dense conferta squarrosula erecto-patentia, e basi late cordatâ*

*hastato-lanceolata brevia*, caviuscula, margine erecto ad basin infimam introrsum impressam, cellulis alaribus paucissimis minutissime quadratis praeditam, paulisper reflexo ubique denticulato, nervis brevibus pallidis, cellulis brevibus subconflatis ubique pallidis, papillis sparsis tenerrimis praeditis; perich. squarrosa, late vaginantia, longe latiuscule subreflexe acuminata, vix denticulata, basi laxius reticulata inferne subflavida; theca in ped. elongato rigidissimo laevi purpurascente subinclinata, sicca magis pendula, oblongo-cylindracea subarcuata, ore parum constricta, fuscidula, anguste annulata, operc. conico oblique rostellato brevi aurantiaco; perist. longissimi d. ext. angusti subulati flavidi, int. aequilongi in subulam tenerrimam albidam longam producti lutescentes vix perforati, ciliis binis capillaribus longis hyalinis; calyptra pilis erectis hirta.

Brid. II. p. 411. — *H. filidens* C. Müll. Bot. Zeit. 1844. p. 742. — *H. erythrodontium* C. Müll. l. c. theca robustiore brevior turgida. — *H. trichomitrium* Hmp. in litt.

*Patria.* In valle di Aragua Venezuelae terrestre primi legerunt Humboldt et Bonpland; Mexico: Leiboldt; Brasilia, monte Corcovado et Serra dos Orgaôs: Gardner No. 115; in sylvis flum. Amazonum: Sellow; in sylvis insulae St. Catharinae ad coloniam Germanicam prope flumen Itajahi, Oct. Novbr. 1846: Pabst.

In speciminibus Itajahiensibus calyptram lamelloso-scabram, pilis igitur obsoletis praeditam et thecam globoso-ovalem observavimus. Speciem propriam ob notas hasce leves non putamus.

94. *H. reptans* Sw. (Fl. Ind. Occ. III. p. 1819!); *monoicum*; late cespitosum maxime vage ramosum, ramis subfasciculatis plumulose foliosis parum compressis pallide luteis v. viridibus brevibus et longiusculis curvulis remotiusculis rigidis; folia caulina laxè imbricata, e basi maxime impresso-coarctata, cellulis alaribus paucissimis minutis quadratis praedita latiuscule lanceolata strictiuscula, subcarinate concava, margine erecto, ad infimam basin solam impressam parum reflexo, denticulato, nervis

longiusculis pallidis, cellulis viridibus v. pallidis, papillis vix conspicuis valde sparsis instructis; perich. subsquarrosa, e basi late vaginante laxius reticulata longe reflexe acuminata subdenticulata; theca in ped. elongato crassiusculo purpurascente laevi nutans ovata majuscula badia annulata, ore coarctata, operc. breviter rostrato; perist. robusti d. ext. lutei longissimi lati, int. flavidi perforati, ciliis binis; calyptra *laevissima*.

*Leskea pallida* Schw. Suppl. III. II. 2. t. 291. — *Isothecium pallidum* Brid. II. p. 386. — *Hypnum pallidum* Hook. in Kunth Synops. Pl. Aeq. I. p. 63. — *H. pallescens* Arnott in Brid. I. c. — *H. andicolum* Hook. Musc. Exot. t. 83; *Leskea andicola* Brid. II. p. 297. — *H. reptans* Sw. Fl. Ind. Occ. III. p. 1819 e spec. authent. — Hedwig Sp. Musc. p. 265. t. 68. — Brid. II. p. 448.

*Patria.* In crepidinibus Andium inter Tulcam et Quito Peruviae ad terram: Humboldt et Bonpland. Venezuela, prov. Caracas: Moritz; Galipan: Karsten; Brasilia, in insula Stae Catharinae, in sylvis flum. Itajahi, ad coloniam Germanicam, Oct. et Nov. 1846: Pabst in societate *H. elegantuli* formam magis viridem legit; ex insula Jamaica primus retulit Swartz. Inter regiones orbis novi aequinoctiales late distributa videtur.

Ab *H. elegantulo* proximo notis cursive impressis differt.

95. **H. thelistegum** C. Müll.; *monoicum*; longe repens procumbens *valde compressum tenerum*, ramis brevibus *flaccidis laete viridibus subpinnatum*; folia caulina *subdistichaceo-plumulosa* laxe patentia, *latiuscule lanceolato-acuminata*, *acumine longiusculo rectiusculo v. obliquo*, *caviuscula*, margine ubique erecto *vel infima basi vix impresso*, cellulis alaribus paucissimis quadratis praedito, ubique parce subdenticulato, nervis et cellulis *H. elegantuli*; perich. *tenera longe filiformi-acuminata flexuosa haud squarrosa, pallidissima*; theca in ped. *tenerissimo* purpurascente laevi nutans, *minute sphaerico-ovalis*, deoperculata ore valde constricta urceolata, badia, annulata, operc. *hemisphaerico obtuso breviter mammillato*; calyptra *laevissima*; perist. *minuti* d. ext. lutei intus vix

cristati, int. flavidi aequilongi solidi, ciliis 1—3 albidis vix brevioribus.

*Hypnum reptans* Hsch. in Musc. Mexic. a Deppe et Schiede lectis No. 1094 huc revocandum est.

*Patria.* Insula St. Catharinae Brasiliae, ubi locis humosis prope Destero mense Martii 1847. legit Pabst. Mexico, Mirantha: Deppe et Schiede.

Characteribus explicatis ab *H. reptante* proximo longe differt.

96. *H. diminutivum* Hmp. (Linn. XX. p. 86.); *monoicum*; *pusillum*; caulis repens, ramis *brevissimis* decumbentibus viridissimis pinnulatus; folia caulina dense bifariam plumulose imbricata, patentia, parvula, *cordato-ovata acuminata*, vix denticulata, concava, *brevissime binervia*, dorso tenerrime papillosa, margine erecta, e cellulis brevibus densissimis virentibus et alaribus minutissime quadratis paucis chlorophyllosis parum impressis areolata; perich. e basi latius vaginante longiuscule *stricte* subulata; theca in ped. *breviusculo* laevi flavido horizontalis, minute ovalis, opere. *conico brevi obtuso*; perist. *parvi* d. int. ciliis solitariis interjectis.

*Patria.* Venezuela, Caracas ad lignum putridum: Moritz. No. 20.

Ab *H. elegantulo* affini statura exigua, ab *H. reptante* notis laudatis, ab *H. thelistego* foliis caulinis cordato-ovatis breviter acuminatis, perich. breviter subulatis, thecae forma et operculo laevi jam longe recedit.

97. *H. Fabronia* Hook. (Lond. Journ. of bot. 1840. 2. p. 17.); *dioicum*; humile prostratum laxe cespitosum gracile, ramis brevissimis irregulariter dispositis rigidis subcompressis tenuibus lutescentibus subpinnatum; folia caulina dense imbricata *fabronioidea brevia ovato-lanceolata breviter acuminata stricta*, caviuscula, dorso tenerrime papillosa, margine *ubique erecto* et cellulis marginalibus parum prominentibus crenulate denticulato, nervis brevibus, cellulis brevibus angustis distinctis lutescentibus, alaribus parvis *quadratis planis pellucidis vel intus*



*vix granulosis submultis*; perich. parum longius acuminata, magis denticulata et basi laxius reticulata; theca in ped. brevi purpurascens laevi suberecta ovalis parvula exannulata leptodermis fuscidula, operc. conico oblique rostrato; perist. d. ext. angusti tenues longi lutei leviter trabeculati, int. aequilongi angusti subpertusi, ciliis rudimentariis revissime conicis singulis interpositis.

*Helicodontium Fabronia* Schw. Suppl. III. II. 2. t. 294. — *Leskea Fabronia* Hook. l. c.

*Patria.* Nepal: Wallich.

*H. elegantulo* formis gracilioribus haud dissimile.

98. **H. fabroniaefolium** C. Müll.; *H. Fabroniae* simillimum, sed rami *virescentes* parum compressi; folia *elliptico-areolata chlorophyllosa, latius ovata et brevius acuminata, profunde concava*; theca perfecte erecta, exannulata, operculum et peristom. *H. Fabroniae*.

*Leskea denticulata* Sulliv. Musc. Allegh. No. 62.

*Patria.* Ad arbores in excelso Balsam Mountain dicto Carolinae superioris: Sullivan.

99. **H. gracilescens** C. Müll.; caulis ramosus, ramis erectis *gracillimis* apice homomallis; folia caulina laxiuscule imbricata, e basi *angustiore cymbiformi-oblonga obtusa subacuta, parva*, margine ubique erecto et minutissime densissime crenulato, *sublaevia*, nervis binis brevissimis obsoletis, cellulis *minutis ellipticis incrassatis pallidis, basi subflavidis* alaribus *minutissime quadratis incrassatis paucis*; perich. squarrosa.

*H. gracile* Hook. et Wils. Lond. Journ. of bot. 1844. p. 553 et Fl. Antarct. I. p. 140. Nomen ob synonymum Br. et Sch. mutandum. — *H. micans* Hook. et Wils. Fl. Antarct. II. p. 421 var. foliis secundis laevioribus huc pertinere videtur.

*Patria.* Insulae Aucklandi: J. D. Hooker sterile legit.

100. **H. prostratum** Dz. et Molkb. (Ann. d. sc. nat. 1844. 2. p. 309.); *dioicum?* caulis elongatus *filiformis* repens vage ramosus, ramis prostratis flaccidis subsimplicibus *gracillimis* attenuatis vix compressis; folia caulina

laxe disposita erecta, e basi regulari haud impressâ breviter oblonga obtusiusculo - lanceolata, concava, firma, margine erecto, superne serrulato, nervis brevibus subdistinctis, cellulis brevibus densissimis conflatis pallide viridibus tenerrime papillosis, alaribus paucis minutissime quadratis pellucidis planis; perich. dense imbricata lanceolata acuminata subserrulata; theca horizontalis v. nutans incurva ovato-oblonga, operculo convexo - rostellato, rostello curvato obtuso.

*Patria.* Java.

Notis laudatis jam a congeneribus refugit et *H. reptanti* affine. Fructum non vidimus.

β. Cellulae alares flavidae vesiculaeformes.

101. *H. scaberulum* Mont. (Lond. Journ. of bot. 1844. p. 632.); *monoicum*; caulis tenuissimus maxime *laxifolius*, decumbens parce vage ramosus, ramis apice *incurvis* brevibus viridibus v. lutescentibus *gracilibus*; folia caulina *remote imbricata falcato-secunda*, tenera, concava, latiuscule lanceolato-acuminata, apice subserrulato, margine erecto, cellulis brevibus valde punctulato-scabris, basi flavidis, alaribus magnis turgidis maxime hyalinis; perich. e basi late vaginante laxius reticulatâ subrecte acuminata, superne magis serrulata; theca in ped. breviusculo *tenerrimo ubique scaberrimo* purpureo horizontalis subpendula urceolata parva brunnea (annulata?), operc. longissime aciculari recto v. obliquo; perist. d. ext. tenuissime subulati rubiginosi, int. aequilongi pertusi, ciliis singulis interjectis.

*Hypnum scaberulum* Mont. in Ann. d. sc. nat. 1845. 4. p. 92. t. 5. f. 2. — *H. hamatum* Dz. et Molkb. Ann. d. sc. nat. 1844. 2. p. 307!

*Patria.* Java: Hb. Montagn. et Lugd. Batavorum; Borneo: Hb. Lugd. Bat.

Notis cursive impressis facile distinguitur.

102. *H. papillosum* Hsch. (Fl. Bras. I. p. 82. t. 4.); *dioicum?* *pusillum cespitosum subcompressum lutescens* v.

*virescens parce breviter ramosum*; folia caulina erecto-patentia, interdum subhomomalla, laxe conferta, *latiuscule lanceolata, in acumen strictiusculum v. subtortum latiusculum producta, concava, margine erecto subcrenulato, nervis obsoletis, cellulis pallide lutescentibus subconflatis verrucoso-papillosis, basi flavidis, alaribus maximis turgidissimis amoene chryseis*; perich. subvaginata lanceolato-subulata, *interiora argute serrata, laxius reticulata*; theca in ped. *brevi laevi purpurascente tenuissimo nutans minute ovalis brunnea (exannulata?)*, operc. hemisphaerico longe flexuose aciculari; perist. minuti d. ext. lutei, int. aequilongi solidi lutei, ciliis capillaribus interpositis.

*H. spirale* C. Müll. Linnaea XXI. p. 200.

*Patria.* Brasilia, in truncis demortuis sylvarum antiquissimarum prope flum. Paquaquer, Januar. c. fr. deoperculatis: Beyrich; in prov. Minarum, Leucobryo Martiano intermixtum legit m. Maji Martius; Surinam inter *H. subsimplex*: Weigelt.

103. **H. papillatum** Harv. (Lond. Journ. of bot. 1840. 2. p. 18.); *monoicum?* longe repens *tenuissimum* irregulariter pinnatum lutescens; folia caulina distichaceo-imbricata, e basi brevissima *maxime constrictâ latiuscule ovata, acumine longo tenuiusculo subflexuoso stricto terminata, concava, margine erecto ubique eroso-denticulato, nervis obsoletis, cellulis brevibus ellipticis subincrassatis papilla unica diaphana humili praeditis pallidis, basi flavidulis, alaribus ternis parvulis vesiculaeformibus flavidis*; theca in ped. *breviusculo ovata horizontalis.*

C. ic. in Hook. Ic. Pl. Rar. I. t. 23. f. 8.

*Patria.* Nepal: Wallich.

Fructum non vidimus. Ab *H. Nepalensi* haud dissimili characteribus designatis longe differt.

104. **H. stissophyllum** Hmp. (in litt.); *monoicum*; *H. plano*  $\beta$ . *acuminulato* simillimum, viride; folia caulina e basi brevi constrictâ *elliptico-lanceolata breviter acuminata, valde concava, margine ubique erecto ad acumen implanum eroso-denticulato, nervis obsoletis, cellu-*

lis angustissime linearibus sordide pallide viridibus tenuiter papillosis, basi flavidis, alaribus majusculis pallide badiis ternis; perich. longe acuminata tenuia, denticulata; theca in ped. brevi purpureo, apice curvato *tuberculoso valde nutans quam maxime minuda angustissime cylindrico-obovata vix conspicua subasperula* badia (annulata?), operc. conico *longissimo aciculari thecam multo superante flexuoso.*

*Patria.* Java, in tumulis Baduorum.

Peristomium speciei hujusce tenellae et distinctissimae nobis haud visum.

105. **H. microcladum** Dz. et Molkb. (Ann. d. sc. nat. 1844. 2. p. 308.); *monoicum?* repens subpinnatim ramosum, ramis *abbreviatis simplicibus erectiusculis* approximatis subattenuatis *vix compressis*, tenellum lutescens; folia caulina *dense imbricata* erecto-patula, e basi haud constricta sed brevi *angustâ anguste lanceolato-acuminata* valde concava, margine erecto ubique subdenticulato, nervis obsoletis, cellulis *longioribus* papilla unica *magis elevata acuta* praeditis, basi flavidis, alaribus valde turgidis prominentibus 2—3 *intense fusco-aureis*; theca in ped. breviusculo inclinata oblonga v. cylindrica, operc. conico-subulato obliquo.

*Patria.* Borneo: Korthals.

Fructum non vidimus. Notis designatis ab *H. papillato* differt.

#### Incertae sedis.

106. **H. acrorrhizon** Hsch. (Fl. Bras. I. p. 75.); *monoicum*; caules et rami erecti rigidi, apice descendentes et radicantes, amoene virides, *bipinnati*, ramulis parum recurvatis; folia caulina remotiora *subdisticha* erecto-patentia, late cordato-acuminata, serrulata, caviuscula, laxiuscule reticulata, ramea ovato-lanceolata acuta argute serrata; perich. interiora e basi latiore concavâ longissime subulata, pellucida, intima breviora, omnia apicem versus remote et obscure serrulata enervia (?) laxius reticulata;

theca in ped. tortili *laevi* apice incrassato et parum incurvato, inferne purpurascete nutans, minute obovata brevis aequalis fusca rugosa, operc. dimidio breviori; perist. d. ext. inferne ferruginei, superne denticulati hyalini, int. parum breviores solidi, ciliis tribus brevioribus subulatis nodosiuscule articulatis hyalinis. †.

*Patria.* Brasilia, ad arbores prope Novo-Friburgum: Beyrich m. Januarii.

Ex animadv. auctoris ab *H. laxifolio* notis laudatis differre legitur. An *H. reptans*?

**107. H. thelipodium** C. Müll.; *androgynum*; caulis repens vage ramosus, ramis prostratis simplicibus compressis rigidiusculis; folia caulina conferta *subbifaria patentissima vel subsquarrosa, cordato-oblonga acuta*, integerrima enervia concava interdum convoluta luteo-viridia nitentia, angustissime lineari-areolata; perich. dense imbricata, ext. minutissima late ovata obtusiuscula concava integerrima enervia dilute viridia parallelogramme areolata, interiora antheridia includentia duplo majora subcordata mucronata, intima archegonia cingentia longiora angustiora ovata acuta; theca in ped. flexuoso tortili purpurascete *brevi* subverrucoso erecta *parvula* elongate cyathiformis, operc. conico longissime rostellato longiori; perist. d. ext. intus valde cristati, lutei, int. fissi flavidi articulati, ciliis rudimentariis (?). †.

*Leskea patens* Hsch. Fl. Bras. 1. p. 72.

*Patria.* Brasilia, in Minis generalibus: Martius.

Fide auctoris *Leskeae rufae* ej. (*Rhegmatodonti* nob.) simillimum, sed notis illustratis distans. Generice jam longissime diversum et inflorescentia androgyna, foliis et ped. scabro e distinctissimis speciebus videtur.

**108. H. Estrellae** C. Müll.; *dioicum?* caulis repens irregulariter pinnatim ramosus, ramis patentibus prostratis plerumque simplicibus laxiusculis; folia densa erecto-patentia lanceolata longe acuminata integerrima enervia rufescentia anguste lineari-areolata; perich. longissime acuminata concava, marginibus involutis, integerrima

enervia, luride viridia, laxius reticulata; theca in ped. laevi tortili fuscescente cernua anguste cylindrica brunnea, ore purpurascete, operc. conico subulato obliquo longiori, calyptra glabra; perist. d. ext. intus parum cristati, rufescentes, int. lutei articulati, ciliis rudimentariis (?).  $\frac{1}{4}$ .

*Leskea cylindrica* Hsch. Fl. Bras. I. p. 73.

*Patria.* Brasilia, Serra d'Estrella, ad truncos arborum sylvestrium: Beyrich, Augusto.

*H. thelipodio* et *pyrrhophyllo* fide auctoris simillimum, ab utroque autem differt foliis lanceolatis longe acuminatis, ab *H. thelipodio* praeterea theca cylindrica, nec elongate cyathiformi, ab *H. pyrrhophyllo* statura gracili, ped. brevi et theca longiore angusta.

109. **H. Dozyanum** C. Müll.; caulis repens vage ramosus, ramis prostratis subsimplicibus remotiusculis arcuatis compressis; folia dense imbricata erecto-patula apice incurva ovata v. oblonga obtusa concava cochleariformia integerrima, nervis binis brevibus obsoletis, dorso et margine papilloso-aspera; perich. erecta ovato-lanceolata, interiora in acumen attenuata; theca nutans ovato-oblonga incurva, operculo conico obtusiusculo.  $\frac{1}{4}$ .

*H. verrucosum* Dz. et Molkb. Ann. d. sc. nat. 1844. p. 309. Nomen ob Hampeanum synonymum mutandum.

*Patria.* Java.

110. **H. macrodontium** Hsch. (Fl. Bras. I. p. 82.); monoicum; caulis arcuato-declinatus radicans pinnatus, ramis erectis fasciculato-ramulosis rigidis recurvis; folia caulina remota erecto-patentia subtriangularia acuminata caviuscula, ramea laxiuscula planiuscula, pallide viridia, argute serrata, nervis binis ad medium evanidis viridibus, cellulis linearibus confertis; perich. e basi latissima concava in acumen longissime subulatum recurvatum attenuata, enervia subintegerrima amoene viridia, basi laxius reticulata; theca in ped. unciali erecto flexuoso tortili gracili laevi purpurascete, superne ferrugineo nutans ovata obliqua brunnea exannulata; perist. d. ext. longi late lan-

ceolato-subulati, intus cristati postice ferruginei, antice hyalini, punctati, interni in membrana lutea lanceolato-subulati solidi, ciliis ternis brevioribus hyalinis teneris interjectis. †.

*Patria.* Brasilia, in districtu adamantium prope Villam Ricam et Salgado ad fl. S. Francisci: Martius; prope Tijucam in vicinia Sebastianopoleos: Olfers.

Cui affine?

Subsectio IV. **Taxicaulis.** Caulis tenellus plumulose foliosus; folia vix vel parum secunda, elongate angustissime areolata laevia, binervia.

Ab *Euomaliis* statura graciliore foliisque plus minus secundis plantae longinquae; a *Cupressinae* congeneribus foliis oblique acuminatis (ut rami) vix falcatis.

A. *Cellulae alares quadratae v. vix ullae.*

a. *Folia integerrima.*

111. **H. pulchellum** Dicks. (Crypt. Fasc. II. 1790; p. 13. t. 5. f. 6.); dioicum; cespites late prostrati viridissimi nitiduli; caulis tenerrimus angustissime complanatus flexuosus sciuroideus; folia caulina amoene plumulose imbricata laxa, indistincte distichacea, anguste ovata breviter tenuiter falcate acuminata acutissima, concava, integerrima, margine ubique erecto, nervis binis brevissimis viridibus obsoletis, cellulis angustissime linearibus veluti conflatis virentibus, alaribus vix ullis; perich. anguste vaginantia acuminata pallidissima enervia pauca; theca in ped. elongato purpurascente laevi inclinata breviter cylindracea subcernua badia annulata, operc. conico brevi pallido; perist. d. ext. angusti lutei, int. in membrana albida laevi albidu punctulati, vix pertusi, ciliis binis aequilongis punctulatis albis.

*H. nitidulum* Wahlenb. Fl. Lapp. 1812. p. 370. — *H. contextum* Schleich. Cr. Helv. Exs. Cent. III. No. 49. — *Leskea nitidula* Wahlenb. in Web. et Mohr. Ind. Mus. — *L. pulchella* Hdw. Sp. Musc. p. 220. t. 55, icone pessima!

*Patria.* In locis deustis supra vegetabilia putrida, in alpinis Helvetiae, Bavariae, in Sudetis, Pyrenaeis,

montibus Scotiis, Norvegiae, Sueciae, Lapponiae et fide Ångströmi in Dania quoque occurrit. — Augusto.

Habitu *H. denticulati* formas minores haud male referens, sed foliis falcatis primo adpectu distinctum et notis laudatis facile cognoscendum.

112. **H. brachyneuron** C. Müll. (Bot. Zeit. 1845. p. 109.); *monoicum*; cespitosum procumbens simillimum vage ramosum, ramis brevibus gracilibus lutescentibus compressiusculis; folia caulina erecto-patentia, elliptico-lanceolata, acumine subrecurvo filiformi brevi terminata, subintegerrima concava, margine erecto, rarius vix reflexo, nervis brevibus subobsoletis pallidis, cellulis elongatis angustis pallidis, basi pellucidis vel flavidis, alaribus vix ullis paucissimis quadratis pellucidis v. flavidis; perich. latius vaginantia, longius acuminata; theca in ped. longiusculo laevi tenero aurantiaco subnutans minute ovalis brevicolla aequalis badia, exannulata, operc. brevi conico oblique rostellato; perist. minuti d. ext. lutei, int. flavidi solidi aequilongi, ciliis brevioribus singulis.

*H. subsimplex* Hook. et Wils. in Gardn. Musc. Bras. No. 107.

*Patria.* Brasilia, Serra dos Orgãos, Martio 1837: Gardner; insula St. Catharina ad cortic. arbor. sylvestr. pr. flum. Itajahi, Sept. et Octbr. 1846: Pabst.

Notis laudatis ab *H. Richardi* haud dissimili jam longe differt.

113. **H. gracillimum** Hsch. (Fl. Bras. I. p. 78.); *monoicum*; caulis repens gracillimus radiculoso-tomentosus rufus, innovationibus plerumque simplicibus, interdum brevissime ramulosis, compressis, pallide viridibus; folia disticha erecto-patentia subsecunda, ovato-acuminata subobliqua, integerrima, *enervia*, margine anguste reflexo, cellulis ubique angustis virentibus; perich. intima e basi latiore concava vaginatâ longissime lanceolato-subulata subserrulata *enervia* subhyalina basi laxè quadrate reticulata, caetera integerrima; theca in ped. erecto tortili laevi ferrugineo, apice pallidiore incrassato curvulo pendula oblongo-ovata aequalis, deoperculata obconica fusco-



brunnea, operc. ferrugineo dimidio breviori, *conico acuto*; perist. d. ext. ferruginei, int. lutei solidi, ciliis solitariis brevioribus pallidis.

*Patria.* Brasilia, prov. Minarum, locis umbrosis: **Martius.**

Ex animadv. auctoris ab *H. splendidulo* valde affini operculo conico acuto, non hemisphaerico brevissime rostellato, distinctum. Fructum non vidimus. Ab *H. brachyneuro* notis laudatis differt.

b. *Folia denticulata.*

**114. H. Borrerianum** Spruce (Mst.); *dioicum*; caulis decumbens anguste complanatus, ramis distantibus *flaccidissimis*, *saepius in ramulos tenerrimos flagelliformes confervoideos sparsifolios dissolutis*, amoene viridibus; folia caulina laxè disticha, anguste ovata, in acumen tenue flexuosum breviusculum attenuata, profunde complicato-concava, irregulariter plicata, margine erecto, apice subdenticulato, nervis binis brevibus, cellulis ubique angustissime linearibus subconflatis amoene lutescentibus, alaribus vix conspicuis minutissimis; theca *H. elegantis*.

*H. elegans* Spruce in Ann. and Mag. of Nat. Hist. 1849. Musc. Pyr. No. 24!

*Patria.* In zona montosa et subalpina Pyrenaeorum centralium pr. Bagnères-de-Bigorre, ad terram (♀); Bois de Sajust prope Bagnères-de-Luchon, ad rupes graniticas (♀ et ♂): Spruce; ad rupes arenaceas Angliae, in Eridge Park, Tunbridge Wells, in vicinia Castle-Haward, in Eskdale: Spruce, Borrer, Wilson, Mitten, prope Bartry fertile legit Miss Hutchins.

Pulchra species, notis laudatis ab omnibus congenereis Europaeis distincta. Theca, ab auctore accuratius nondum descripta, nobis non visa. Cespites ob ramulos tenerrimos saepius creberrimos *Hypno subtili* simillimi et steriles observantur.

**115. H. albescens** Schw. (Suppl. III. I. 2. t. 226.); *monoicum*; late cespitosum intertexto-repens vage ramo-

sum, molle, tenellum, ramis breviter pinnatis teneris angustissimis compressis albescentibus nitidulis; folia caulina laxè conferta subdistichacea, e basi caviusculà latiuscule cordato-lanceolata, in acumen longiusculum tenuè plus minus flexuosum producta, margine ubique erecto apice vix denticulato, nervis obsoletis, cellulis angustissime linearibus ubique albidis, alaribus vix ullis obsoletis; perich. paucissima latius vaginantia longius acuminata basi laxius reticulata subdenticulata; theca in ped. tenero longiusculo rufo laevi horizontalis minute ovalis madefacta aequalis, sicca ore parum coarctata, brevicollabada, exannulata, operc. conico brevi; perist. d. ext. flavidi breves, int. lutei aequilongi imperforati, ciliis singulis albidis.

*Patria.* Nepal: Wallich. Java, monte Merapi merid., in sylvis, alt. 3 — 5000 : Junghuhn.

116. *H. leucophyllum* Hmp. (in litt.); *monoicum*; *H. albescenti* simillimum, minus nitidum et magis distichum, folia caulina e basi brevissima inaequaliter constrictà subovato-acuminata, subdenticulata planiuscula, cellulis longioribus; theca in ped. brevi, madefacta medio constricta, operc. conico brevi obliquo; perist. *H. albescentis*.

*Patria.* Chile ad arbores.

117. *H. albulum* C. Müll.; *dioicum*; late laxè cespitosum valde depressum tenerum planissimum angustissimum tenerum albulum nitidum, ramis brevissimis vagis; folia caulina dense conferta indistincte falcata, e basi subtruncata ovata parum subfalcate acuminata, vix binervia, planiuscula, vix denticulata, margine erecto, cellulis elongatis angustissimis pallidissimis, basi saepius flavidis, alaribus obsoletis pallidis v. flavidulis; perich. longius acuminata, basi vaginantia, vix falcata; theca in ped. brevi laevi rufo tenui inclinata minute ovalis brevicolla fusca exannulata, operculo conico oblique acuminato; perist. d. ext. breves angusti lutei, int. angusti flavidi imperforati, ciliis singulis dentes aequantibus tenerrimis.

*H. subsimplex* Sulliv. Musc. Allegh. No. 52. — *H. tenerum?* Hook. et Wils. in Drumm. Musc. Amer. No. 108 et 109.

*Patria.* America septentrionalis, in truncis emortuis atque in terra, prope Montgomery Alabamae: Sullivant.

Characteribus laudatis facile discernendum. Ab *H. subsimplici* habitu et interna structura toto coelo refugit.

118. **III. taxiforme** Brid. (Sp. Musc. II. p. 95.); *dioicum*; caulis flavidus laxè foliosus subnudus prostratus, ramis brevibus tenellis planissimis flavescentibus pinulatus; folia caulina distichacea laxè conferta *lanceolata acuminata* stricta v. apice curviuscula caviuscula superne denticulata, margine erecto, nervis brevibus flavidulis, cellulis angustissime linearibus sordide viridibus pallidis, *alaribus vix ullis paucissimis pellucidis fugacissimis*.

Brid. Br. univ. II. p. 392. — Schw. Suppl. III. II. 2. p. 286.

*Patria.* Sierra Leone Africae littoralis occidentalis: Afzelius ad terram legit.

Flos masc. parvulus, fol. subsquarrulosis; sterile hucusque notum.

119. **III. radicans** Brid. (Mant. Musc. p. 184.) caulis tenellus flavidus repens radicans, *foliosus*, ramis tenellis brevibus *subcompressis gracillimis* flavescentibus brevibus v. longioribus et parce brevissime ramulosis; folia caulina laxè conferta angustissime lanceolato-acuminata stricta brevia, concava, margine *vix conspicue angustissime reflexo*, inferne indistincte superne distincte denticulato, nervis binis brevibus flavidis, cellulis angustissime elongate linearibus pallidis, alaribus vix ullis ad infimam basin *minutissime quadratis persistentibus*; theca elongata erecta.

*Leskea serrulata* Brid. II. p. 763.

*Patria.* Insula Bourbonis.

Ab *H. taxiformi* characteribus declaratis differt. Fructus nobis haud visus.

#### B. Cellulae alares vesiculaeformes.

120. **III. cirrhifolium** Schw. (in Freycinet Voy. autour du monde. Bot. par Gaudichaud. T. I. p. 129.); *mo-*

*noicum*; repens depressum *latiuscule deplanatum* adnatum, ramis brevibus irregulariter pinnatulum, pallide viride; folia caulina disticha densa, e basi angustiore ovata, acumine tenui flexuoso terminata, concava, integerrima, margine erecto, nervis obsoletis, cellulis pallidis basi flavidis, alaribus majusculis vesiculaeformibus flavidis; perich. longiora ovato-acuminata; theca in ped. brevi ascendente rufo apice curvato et *scaberulo angustissime cylindracea macrostoma* nutans fusca, operc. conico *longissime flexuose aciculari*; perist. d. ext. lati longi, trabeculis latere ciliati fusci, int. aequilongi angusti solidi, ciliis solitariis *rudimentariis*. †.

*Leskea cirrhifolia* Schw. Suppl. III. II. 2. t. 290. — *Hookeria cirrhifolia* Walker - Arnott l. c.

*Patria.* Ad ligna putrida in insulis Moluccis Rawack: Gaudichaud.

**121. H. striatellum** C. Müll.; *monoicum*; latissime cespitosum humile ascendens, ramis *gracilibus* luteo-viridibus splendentibus, folia caulina *squarroso-disticha subhomomalla*, basi cellulis alaribus distinctis, superioribus minutis quadratis paucis, inferioribus nonnullis *vesiculoso-turgidis decurrentibus*, pallide viridibus; ped. gracillimus purpureus in thecam *inclinatam veluti obconico-cylindraceam subclavatam longicollam macrostomam parvulam*, siccitate veluti striatellam, pallidam dein *aurantiacam sensim incrassatus*; perist. brevius, internum ciliis *tenuioribus vix nodosis brevibus*.

*Hypnum Mühlenbeckii* Br. et Sch. in litt. — *H. Seligeri* Sw. ex parte fide Schimper! — *H. pulchellum* Br. et S. in Drumm. Musc. Am. Lond. Journ. of bot. 1843. II. p. 668. — *H. Silesianum* Hook. in Musc. Amer. Drumm. No. 168. — *Leskea striatella* Brid. II. p. 762!!

*Patria.* In Sudetis, ubi haud rarum, ad fossas „am kleinen Teich” primus omnium legit et ab *H. Seligeri* distinxit Funk m. Augusto, dein Sendtner 1839; in alpe Grimsel Helvetiae: W. P. Sch. 1848; in locis umbrosis et saxosis Canadae superioris copiose: Drummond; in Alpib. Julicis, Terglou versus Belo Polje: Sendtner 13.

Aug. 1841; m. Albula Rhaetiae: Mühlenbeck; in Pyrenaeis rarissimum: Spruce. In insula Terre Neuve Americae sept. legit La Pylaie, in Ohione Sullivant. Rarissime fructificans.

Flores masculi in vicinia femineorum creberrimi in gemmam unicam aggregati. Ab *H. Seligeri* notis cursive impressis certe differt.

**122. H. subsimplex** Hdw. (Sp. Musc. p. 270. t. 69.); *monoicum*; late laxe cespitosum longe repens, ramis irregularibus brevibus v. longioribus mollibus *subalbescenti-viridibus nitidulis compressiusculis*; folia caulina laxiuscule plumulose imbricata, erecto-patentia, e basi angustiore brevi latiuscule ovato-acuminata strictiuscula subintegerrima caviuscula, margine erecto, nervis obsoletis, cellulis albidis, basi flavidis, alaribus 4 + 5 aureis majusculis; perich. longius filiformi-acuminata latius vaginantia, basi laxe et flavide superne sensim incrassate reticulata, margine hic illic revoluta subintegerrimo; theca in ped. longiusculo aurantiaco laevi horizontalis v. sicca nutans, minute ovalis ore constricta, exannulata, operc. cupulato oblique rostellato brevi; perist. d. ext. flavidi, int. lutei imperforati aequilongi, ciliis singulis interjectis.

*Isothecium subsimplex* Brid. II. p. 357 ex parte. *H. simplex* Brid. Sp. Musc. p. 251. et *H. simplicissimum* ej. Musc. Rec. II. II. p. 189 e spec. Hb. auctoris species confusa, ad *H. simplex* minime pertinens, delenda.

*Hypnum brachypoma* Schw. inedit. in Musc. Surinamens. Weigeltianis, forma viridior.

*Patria.* Ex India occidentali primus retulit Swartz; in Guiana Batavica (ad truncos vetustos prope Paramá-ribo leg. Kegel et Weigelt in locis non designatis) et Gallica, ubi leg. Rich. Schomburgk; ex insula Trinidad Antillarum misit Crüger.

Notis cursive impressis facile discernibile.

**123. H. splendidulum** Hsch. (Fl. Bras. I. p. 78.); *monoicum*; longe repens, ramis brevibus subsimplicissimis pinnatulum, peranguste deplanatum luteo-viride flaccidum nitidulum; folia caulina laxe imbricata, e basi brevi

constrictâ ovato-acuminata, acumine longiusculo subobliquo, margine erecto vix denticulato, concava, nervis obsoletis, cellulis pallidissimis subconflatis basi flavidis, alaribus majusculis vesiculaeformibus flavidis; perich. longius acuminata *haud filiformia*, latius vaginantia, margine parum reflexo magis denticulato; theca in ped. *breviusculo* laevi purpureo horizontalis v. pendula, parva *obovata brevis basi substrumosa*, deoperculata ore dilatato, brunnea, exannulata (?), operc. hemisphaerico brevissime rostellato dimidia thecae longitudine; perist. d. ext. *latere cristato-trabeculati*, pallide ferruginei, apice hyalini punctati, int. lutescentes paullo breviores solidi, ciliis solitariis capillaribus vix brevioribus.

*Patria.* Brasilia, Serra dos Orgaôs supra saxa et ad truncos arborum sylvestrium, Febr. c. fr. maturis: Beyrich; prope Tijuca in vicinia urbis Rio de Janeiro: Olfers, Sellow, Merkel; in Serra d'Estrella et prope urbem S. Paulo: de Martius.

Characteribus designatis ab *H. subsimplici* certe distat.

124. **H. Trinitense** C. Müll.; *monoicum*; cespites latissimi maxime deplanati pallescentes splendentes; caulis intricate pinnatim divisus, valde complanatus, ramis repentibus breviusculis angustis tenellis; folia caulina *squarrosule bifaria albescentia*, dense imbricata, e basi parum impressa, cellulis alaribus utrinque 2—3 hyalinis vesiculaeformibus *parvis hyalinis rarius subflavidis praedita*, latiuscule ovata, acumine longiusculo *plerumque falcato-reflexo terminata*, torsione valde irregularia, *planiuscula*, margine *hic illic anguste revoluta distincte denticulato*, nervis obsoletis, cellulis pallidissimis subconflatis, basi subflavidis; perich. strictissima, latiuscule vaginantia, longiuscule acuminata, superne distincte denticulata, enervia, margine erecto v. revoluta, cellulis basi longioribus et laxioribus; theca in ped. *elongato* gracillimo laevi aurantiaco horizontalis, minute obovata, operc. conico *longiuscule* tenuissime oblique subulato; perist. d. ext. ferruginei, latere parum cristati, apice hyalini punctu-

lati, int. flavi solidi, ciliis 2—3 brevibus subconflatis albis articulatis subrugulosis.

*Patria.* Insula Trinidad Antillarum minorum, ad Maraccas, Arima et montem Tocuche: Crüger m. Aug. et Dec. 1844 et 1847 legit.

Ab *H. splendidulo* Hsch. simillimo vestigiis cursive impressis facile distinguitur.

**125. H. Richardi** Schw. (Suppl. I. II. p. 205. t. 93.); *monoicum; tenuissimum tenerrimum longe prostrato-repens vage intertexte ramosum viride nitidulum distichaceo-compressum maxime appressum; folia caulina laxo erecto-conferta, anguste ovato-acuminata, acumine breviusculo subrecto, concava, margine hic illic parum reflexo subintegerrimo, nervis obsolete, cellulis subconflatis viridibus, basi flavidis, alaribus majusculis vesiculaeformibus utrinque 3—4 flavidulis; perich. parum latiora et longiora basi laxius reticulata; theca in ped. pro exiguitate plantae longiusculo tenerrimo laevi aurantiaco horizontalis v. sicca nutans, minutissime ovalis vix conspicua ore constricta, deoperculata macrostoma exannulata badia, operc. cupulato longius aciculari obliquo aurantiaco; perist. d. ext. lutei, int. flavidi solidi, ciliis singulis tenerimis.*

*Isothecium Richardi* Brid. II. p. 358.

*Patria.* Guiana Gallica: Richard in truncis putrescentibus legit. Guiana Batavica, in truncis *Tamarindi Indicae* Surinami: Kegel Junio 1844. Brasilia, Ega ad fl. Amazonum: Pöppig 1831.

E tenuissimis, notis laudatis facile cognoscendum.

**126. H. Krakammae** C. Müll.; *monoicum; H. Richardi* simillimum, sed *brevius repens* et parum robustius; *rami apice secundi, vix compressi; folia caulina anguste ovato-acuminata, acumine falcato; perist. d. ext. intus magis ciliato-trabeculati.*

*Patria.* In sylvis primaevis *Krakammae* in districtu Uitenhagen Cap. b. spei, Julio 1832: Ecklon.

**127. H. nigricaulis** Brid. (Sp. Musc. p. 95.); tenellum procumbens breviter pinnatulum pallidum, compressum, caule nigrescente; folia caulina subdistichacea conferta, e basi constricta anguste ovato-lanceolata longe acuminata strictiuscula v. flexiuscula concava, margine erecto integerrimo, nervis obsoletis, cellulis pallidis basi flavidis, alaribus majusculis vesiculaeformibus aureis.

Brid. H. p. 393. — Schwägr. Suppl. III. II. 2. t. 286.

*Patria.* Sierra Leone Africae littoralis occidentalis: Afzelius in terra legit.

Flos masc. parvulus, fol. latiuscule ovatis concavis brevi-acuminatis, ext. minutis, superne emarginatis, laxiuscule reticulatis; sterile hucusque notum.

#### Incertae sedis.

**128. H. brevisetum** Hsch. (Fl. Bras. I. p. 78.); monoicum; caulis gracillimus repens subfasciculatim ramosus, ramis vagis subsimplicibus complanatis amoene viridibus; folia caulina laxe imbricata disticha patentia, lanceolato-acuminata subobliqua, caviuscula integerrima enervia (?) longe anguste pellucide reticulata; perich. intima e basi latiore concavâ longissime lanceolato-subulata, subintegerrima enervia pellucida pallide virescentia, superne elongate anguste basi laxius reticulata; theca in ped. gracili tortili apice parum curvato incrassato laevi ferrugineo suberecta, ob curvaturam pedunculi cernua, obovata brevis aequalis pallide brunnea, deoperculata horizontalis fusca, operc. dimidio breviori luteo; perist. d. ext. inferne rufescentes, int. lutei lanceolato-subulati solidi punctati, ex unica cellularum serie compositi, ciliis singulis punctatis hyalinis. †.

*Patria.* Brasilia, ad truncos arborum prope Rio Janeiro: Merkel, Julio et Augusto.

Cui affine?

**129. H. leptochaeton** Schw. (Suppl. I. II. p. 296.); monoicum; caulis repens aliquoties divisus, pinnatus, ramis depressis copiosis semuncialibus; folia falcata, ovata,



acumine brevi vel dimidio folio aequali, integerrima, parum concava, valde pellucida, vix nitida, amoene viridia, enervia, cellulis reticuli parallelogrammis, in arcus transversos digestis; perich. oblongo - acuminata, apice denticulata; theca in ped. erecto unciali, apice incurvo, tenuissimo tortili luteo - brunneo pendula, urceolata aequalis, siccitate infra os valde contracta, luteo - brunnea, operc. longirostri. †.

*Isothecium leptochaeton* Brid. II. p. 387.

*Patria.* Ad truncos arborum insulae Martinique et Cayennae: Richard.

**130. H. Olfersii** Hsch. (Fl. Bras. I. p. 83.); monoicum; caulis repens laxè irregulariter pinnatus, ramis brevibus subsimplicibus patentibus prostratis albescenti-viridibus; folia caulina subdisticha laxè imbricata secunda subhomomalla, oblongo-lanceolata longissime acuminata, integerrima, enervia (?), lineari-areolata; perich. intima angustissima et longissime acuminata, omnia integerrima enervia concava dilute pallide viridia lineari-areolata; theca in ped. gracili tortili laevi purpurascente apice curvato horizontalis, minute oblonga aequalis, operculo hemisphaerico longe rostrato thecam aequante; perist. d. ext. intus cristati, ferruginei, interni lutei solidi, ciliis brevioribus subulatis hyalinis interpositis. †.

*Patria.* Brasilia, Tijuca in vicinia Sebastianopoleos: Olfers.

Ob cellulas alares nobis ignotas (forte vesiculaeformes flavidas) sedis incertae.

**131. H. retroflexum** Hook. (in Wallich. Cat. n. 7656.); *monoicum?* longe repens tenellum, ramis brevibus erectis regularibus simplicibus eleganter pinnatum, folia caulina latiuscule ovata, acumine breviusculo plus minus recurvo latiusculo terminata, *siccitate recurva squarrosa*, margine erecto ubique serrulato, nervis brevissimis vix conspicuis. †.

Hook. Ic. Pl. Rar. I. t. 23. f. 6. — Harvey in Lond. Journ. of bot. 1840. 2. p. 19.

*Patria.* Nepal: Wallich.

Sterile tantum notum.

**132. H. cyperoides** Hook. (in Wallich. Cat. n. 7653.); *monoicum?* repens tenellum, ramis brevibus patentibus regularibus deplanatis dense approximatis eleganter pinnatum, pallide viride; folia caulina subdisticha patentissima ovata, acumine brevi obliquo, margine erecto ubique minutissime serrulato, nervis subbinis; theca in ped. breviusculo horizontalis minute ovalis, operc. conico curvirostro; perist. d. ext. angusti, int. ciliis 1—2 interpositis. †.

Hook. Ic. Pl. Bar. I. t. 23. f. 5. — Harvey in Lond. Journ. of bot. 1840. 2. p. 19.

*Patria.* Nepal: Wallich.

Cui affine?

**133. H. latifolium** Tayl. (Lond. Journ. of bot. 1848. p. 196.); *dioicum?* procumbens vage pinnatim ramosum, gracillimum, ramis brevibus subincurvis subcomplanatis pallide viridibus; folia laxa subdisticha subsquarrosa patentia *late cordata*, elongate acuminata serrata enervia, margine basi reflexo; perichaetia brevissima; theca in ped. laevi cernua ovata, operculo *conico brevi*; perist. int. d. lanceolati paulisper perforati, ciliis apice saepius divisus interpositis. †.

*Patria.* In Andibus Quitensibus, Puerto del Napo: Dr. Manuel Villavicensio in Coll. W. Jamesoni.

Notis cursive impressis ex auctore facile a congenerebus distingui posse dicitur.

**134. H. pygmaeum** C. Müll.; *monoicum*; decumbens subramosum debile complanatum vix unciale albescens vix viride nitidum, caule apicem versus crescente; folia imbricata erecto-potentia lanceolata acuminata integerima enervia; perichaetia minuta; theca in ped. laevi erectiuscula paulisper inclinata turbinata macrostoma, operc. rostrato; perist. d. ext. linea longitudinali obscura exarati, int. ciliis solitariis rudimentariis interpositis. †.

*Leskea pygmaea* Tayl. Lond. Journ. of bot. 1848. p. 197.

*Patria.* Andes Quitenses, Puerto del Napo : Dr. Manuel Villavicencio in coll. W. Jamesoni, Majo 1847.

Ex animadv. auctoris oculis nudis vix conspicuum, pygmaeum.

Subsectio V. **Cupressina.** Caulis complanatus, ramis falcatis uncinatis pinnatim ramosus; folia distincte falcata, elongate lineari-areolata, binervia, laevia.

A. *Cellulae alares quadratae distinctae.*

a. *Folia margine plus minus revoluta.*

135. **H. cupressiforme** L. (Sp. Pl. p. 1592.); dioicum; late cespitosum decumbens, plus minus deplanatum, ramis brevibus distantibus apice subhamulosis pinnatum, e viridi lutescens, humile v. procerum; folia caulina dense imbricata, *latiuscule ovato-lanceolata longe falcato-acuminata*, integerrima v. subdenticulata, *margine erecto, infima basi ad cellulas alares multas planiusculas quadratas laxas granulosis pellucidis rarius flavidulas constricto-reflexo*, nervis brevibus obsoletis, cellulis angustissime linearibus plus minus pallide viridibus; perich. latius vaginantia, intima longe convolutacea et acuminata, apice denticulata, tenerius reticulata, enervia, ext. multo minora ovato-acuminata, *haud plicata*; theca in ped. mediocri purpureo laevi suberecta, *cernuo-cylindracea fusca pachydermis, operc. turgide conico recte rostrato concolori, annulo lato*; perist. H. mollusci, internum valde perforatum secedens, pallide flavum, ciliis aequilongis singulis v. binis tenuissimis.

*Hypnum* (*Stereodon*) *cupressiforme* Brid. II. p. 605—12. incl. variet. *mammillata* p. 608; *tectorum* p. 612, forma magis julacea, saepe in tectis et rupibus umbrosis; *filiformi* p. 609, ramis tenuissimis, in sylvis hic illic; *julacea* p. 608, ramis julaceis, foliis vix secundis et vix falcatis late ovatis, e Pyrenaeis, var. *tectorum* affinis; *complanata* et *lacunosa* p. 110, forma complanata viridissima, foliis late ovatis, cellulis alaribus laxioribus et margine magis revoluta: *Hypn. lacunosum* Wieb. Fl. Werth. n. 299?; *decipiens* p. 608, foliis vix secundo-infectentibus, sed parum homomallis: *Hypn. decipiens* Hoffm. Deut. Fl. II. p. 73; *compressa*, vix forma propria, theca subovata erectiuscula: *H. compressum* Schultz

Prodr. Fl. Starg. n. 898; *chrysocoma* p. 609, eleganter pinnata lutescente splendente, tenui, appresso-prostrata. Var. *Lauri* ex insula Teneriffa forma foliis angustissimis et ramis tenerrimis videtur. Varietates *longisetam*, *plumosam* p. 611 et *corruscantem* p. 612. in Hb. Brideliano non reperimus; Var. *nigro-viridis* p. 611, quae fide *Bridelii Hypn. nigro-viride* Turn. Musc. Hib. p. 141 dicitur, cum var. *tectorum* convenit. *H. nitens* Timm. Prodr. Fl. Me-gap, n. 828. — *H. homomallum* Bert. Pl. Rar. Ital. Dec. IV. n. 13. — *Neckera cupressiformis* Willd. Prodr. Fl. Ber. n. 936. — *H. fastigiatum* Wieb. Fl. Werth. p. 301? — *Hypnum cupressiforme* L. Hdw. Musc. Fr. IV. p. 59. t. 23. — *H. crispum*, cupressiforme, foliis aduncis. Dill. Musc. p. 287. t. 37. f. 23.

*Patria.* Per totam Europam, Americam septentrionalem, Asiam borealem, et in Cap. b. spei, loca diversissima habitans, e planitiibus in alpes ascendens. — *Auctumno et hyeme*, sed per totum annum thecis ornatum.

Species maxime polymorpha quidem, sed vestigiis supra illustratis facillime et certe discernibilis, cosmopolites muscorum pleurocarpicorum ut *Ceratodon purpureus* acrocarpicorum.

136. *H. micans* Hook. (Wils. in Brit. Fl. V. II. p. 83.); *H. cupressiformi* simillimum, sed partibus omnibus gracilioribus aureo-luteis; folia erecto-patentia rotundato-ovata acuminulata concava serrata, margine reflexo, brevissime binervia. †.

Taylor in Mackay Fl. Hib. II. p. 42.

*Patria.* Hibernia, in sylvis ad Glengariff, ad Killyarney haud infrequens: Miss Hutchins.

137. *H. reptile* Rich. (in Mich. Fl. Amer. Bor. II. p. 315.); *dioicum*; longe repens, ramis *gracillimis fragilibus filiformibus patentissimis densissime foliosis* laete viridibus; folia caulina e basi *ventricose late ovata subito fere falcata* acuminata, ubique obsolete denticulata, cellulis alaribus *paucioribus minutis, basilaribus* cum nervis subobsoletis *flavidulis*; perich. caulinis multo longiora stricta vaginantia longe lanceolato-acuminata *plicata*, tenerius reticulata; theca *primum olivacea*, dein fuscescens, operc. e basi protuberante conico magis rostellato; perist. int. ciliis 2 — 3 plus minus cohaerentibus.

*H. petitnochron* Lobarzewski in Haidinger's Naturw. Abh. I. 1847. p. 51, e specie Novariensi, Notarisiana, quacum ex auctore identicum! Forma caule magis julaceo et *H. cupressiformi* var. *tectorum* analogae! — *Hypnum reptile* Rich. Schw. Suppl. II. II. p. 163 t. 146. — Brid. II. p. 535. — *H. recurvans* Hb. Cooley. No. 53. Brid. II. p. 614, forma curviramea dense cespitosa. — *Hypnum* (*Stereodon*) *protuberans* Brid. II. p. 612. — *H. cupressiforme* var. *protuberans* al. — *H. cupressiforme* var. foliis angustioribus Hook. in Drumm. Musc. Amer. No. 207.

*Patria.* In lignis dejectis adrepens in monte Grandfather Carolinae superioris primus legit Michaux, ibidem dein Sullivant et in arboribus a Marylandia usque ad Carolinam superiorem; in Massachusetts legit Cooley; pr. Reinhartsbrunn saltus Thuringici anno 1822 in sylvis Bridel detexit; praeterea per totius fere Europae montes editiores et alpes ad truncos putridos. — *Julio, Augusto.*

Ab *H. cupressiformi* proximo characteribus datis certe distat.

138. **H. aluminicolum** C. Müll.; *monoicum*; *H. cupressiformi* simillimum, ramis gracilibus teneris luteis; folia caulina *anguste lanceolato-acuminata* falcata profunde concava, margine *revoluto superne serrulato*, nervis plerumque obsoletis v. altero brevissimo, altero elongato flavido, cellulis *basi flavidis*, alaribus *superioribus paucis quadratis pellucidis v. granulosis*, *inferioribus vesiculaeformibus laxioribus aureis*; perich. appressa late ovata breviter acuminata, margine revoluto v. erecto integro, concava laeviter plicata enervia, inferne laxissime flavide reticulata; theca in ped. tenerrimo elongato laevi cernuo-cylindrica *angustissima* macrostoma; perist. d. ext. breves latiuscule lanceolati subulati pallidi, trabeculis densis latere *fimbriatis* introrsum revolutis, int. in membrana pallida aequilongi angusti *imperforati*, ciliis aequilongis solitariis pallidis tenuissimis.

*Patria.* Mexico, in cavernis aluminatis ad pedem m. Cerro de los Nabajos: C. Ehrenberg.

139. **H. imponens** Hdw. (Sp. Musc. p. 290. t. 77.); *dioicum*; longiusculum dense et inaequaliter pinnatum, ra-

mis uncinatis luteo-viridibus brevibus; folia caulina *H. curvifolii*, sed *distinctius denticulata et perich. longissime acuminata, distinctius denticulata*, plicata, margine revoluta; theca in ped. elongato rubro laevi *erecta anguste longiuscule cylindracea subcernua*, fusca, nitida, exannulata; operc. conico *acuto* brevi; perist. *minus pallidum*, interni d. in membrana *brevi albida* ext. aequantes *rugulosi albidis* secedentes, ciliis *singulis rudimentariis albidis rugulosis*.

*H. (Sterodon) imponens* Brid. II. p. 618. — *H. cupressiforme* Hook. in Drumm. Musc. Amer. No. 205!

*β. chrysocyttus*; cellulis basilaribus et alaribus majusculis pluribus et subvesiculaeformibus aureo-flavidis. *Hypnum Bruchianum* Schimp. in litt. — *H. curvifolium* Itzigsohn in litt. — *H. (Stereodon) Terrae Novae* Brid. II. p. 619!

*Patria.* America septentrionalis, ubi haud rara imos truncos stipitesque putrefactos habitat. Mühlberg primus legit. Var. *β.* in Vogesi inferioris sylvaticis humidis prope Bärenthal: W. P. Sch. In trunco alni in palude reg. Neodamensis Borussicae, ubi sterile legit Itzigsohn. Ohio Amer. sept.: Sullivant Musc. Allegh. No. 16.

Ab *H. curvifolio* notis laudatis, ab *H. mollusco* thecae forma et peristomii structura differt.

b. *Folia margine erecto.*

140. *H. curvifolium* Hdw. (Sp. Musc. p. 285. t. 75.); *dioicum*; plus minus elongatum late complanatum breviter ramosum pinnatum aureo-lutescens v. viridulum; folia caulina dense imbricata, *latissime ovato-lanceolata obtusiuscule late acuminata* falcata, nervis saepe obsoletis brevibus, caviuscula subdenticulata, pallide angustissime subconflate areolata, cellulis alaribus ad marginem basis infimae *haud reflexum subauriculatum interdum subdenticulatum vix ullis paucissimis irregularibus pellucidis*; perich. stricta late vaginantia longe acuminata denticulata elongate striatule basi laxe pellucide areolata, *valde longitudinaliter plicata*; theca in ped. elongato purpureo

laevi horizontalis, arcuato-cylindrica *turgida brevis*, *latissime annulata*; operc. *obtuse conico brevi mammillato leptodermi*; perist. longum robustum, d. ext. *latissime lanceolati*, int. in membrana alta maxime reticulata *flavida valde compresso-carinati vix perforati*, ciliis 3—4 *aequilongis remote articulatis albidis*.

*Hypnum cupressiforme* var. *complanatum* Hmp. Veget. Cell. Herc. Exs. No. 96. — *H. amoenum* Hook. in Drumm. Musc. Amer. No. 196 ex parte. — *H. pratense* Koch in Brid. II. p. 769 memoratum. — *H. curvifolium* Hdw. Brid. II. p. 613 sub *Stereodonte*.

*Patria.* Prope Blankenburg Hercyniae ad fossam graminosam humidam sylvestrem copiose: Hampe; Suecia, Gefle ex Hartmann; Anglia: Spruce; per totos Pyrenæos in graminosis montium humiliorum sed raro fertile: Spruce; in America tota septentrionali, in paludibus. — *Aestate*.

Notis cursive impressis ab *H. cupressiformi* longe differt.

141. *H. fertile* Sendtn. (in Denckschr. d. Bot. Ges. z. Regensb. 3. Bd. 1841. p. 147.); *monoicum*; cespites *latissimi procumbentes stramineo-virides intertexti ditissime fertiles*; caulis repens firmus, ramis depressis, ramulis regularibus breviusculis plus minus hamulosis apicem rami versus brevioribus pinnatis; folia caulina conferta, maxime secunda, e basi *late ovata lanceolata*, in acumen tenue elongatum falcatum producta, *integerrima*, margine ubique erecto, nervis obsoletis, cellulis pallidissimis veluti conflatis, saepe rubiginosis, alaribus *submultis subventricosis maxime incrassatis parum flavidis*; perich. late vaginantia albida stricta longe lanceolato-acuminata, apice *subdenticulata*, basi laxe reticulata tenera, *subplicata*; theca in ped. *longissimo crasso aurantiaco laevi flexuoso subrigido horizontalis subarcuate ovalis brevis turgida majuscula aurantiaca olivacea*, operculo conico acuminato recto; perist. *H. callichroi*, ciliis plerumque ternis.

*H. crinale* Schleich. ex Rabenh. Deutschl. Krypt. II. p. 276; sed nomen nunquam antea editum, igitur Sendtneriano postponendum.

*Patria.* In ligno putrido „auf der Benediktenwand“ alpium Bavariae 1832 detexit Sendtner, dein 1835 in iisdem locis in castris Romanis prope Grünwald circa Monachium et „im Reinthale an der Zugspitz“, denique in Algovia „an der Stillach unter dem Freiburger-See“ alt. 2500', Sept. 1848, monte Peissenberg Bavariae superioris, in Littorale Austriae. In Helvetia Schleicher primus legisse dicitur. — *Majo*, serius in alpibus.

Ab *H. mollusco* notis cursive impressis differt; ab *H. callichroo* colore et thecae forma affini cespitibus procumbentibus jam distat; ab *H. imponente* theca arcuata turgida horizontali primo visu distinguitur; ab *H. cypressiformi* foliis subnervibus, eorum cellulis alaribus maxime incrassatis, margine ubique erecto et peristomio longe recedit; ab omnibus infloresc. monoica refugit. — Flos masc. in vicinia feminei squarrosifolius solitarius. Theca, nobis deoperculata sola visa, exannulata videtur.

142. *H. callichroum* Brid. (II. p. 631 sub *Stereodonte*.); *dioicum*; cespites altiusculi latissimi mollissimi *amoene stramineo-virides subsericei*; caulis decumbens ascendens elongatus tenuis, ramis *longiusculis simplicibus flagelliformibus* v. iterum ramulosis irregulariter pinnatus flaccidus; folia caulina e basi *late ovata lanceolata longe falcate tenuiter acuminata, integerrima concava*, margine erecto, nervis *longiusculis tenuibus inaequalibus pallidis*, cellulis pallidissime stramineis basi flavescens, *alaribus paucis subventricosis laxis pellucidis v. flavidis*; perich. stricta albida tenerrima, *integra latissime vaginantia superne undulate plicata*, in acumen elongatum tenuissimum subfalcatum producta, basi laxe reticulata; theca in ped. elongato flexuoso purpureo laevi inclinata *arcuate cylindracea, aurantiaca*, late annulata, ore *majori humore aequali sicco constricto*, operc. *turgide conico acuminato brevi*; perist. *H. Cristae Castrensis*, sed d. ext. latere vix pellucidi et cilia interna 2 — 4 similia.

*Patria.* In alpibus Salisburgiae, Nassfelder Tauern, Funk 1821 detexit; in alpe Dürrenstein prope Gaming



Austriacae superioris, Septbr. 1843: Sauter et W. P. Sch.; in Sudetis am kleinen Teiche et in alp. Bavaricis Algoviae, Schattenberg pr. Obersdorf 5500' alt. et am Schloppoltereck 5000' alt. leg. Sendtner, in Vogeso et Sylva nigra: W. P. Sch., in Pyrenaeis, locis diversis: W. P. Sch. et Spruce in zona infraalpina alt. 6000'. Loca graminosa aquosa habitat. — *Ex aestate ad autumnum.*

Ab *H. mollusco* proximo ob vestigia cursive impressa distinctissima et pulcherrima species.

**143. *H. chrysogaster* C. Müll.;** *H. cupressiformi* simillimum, latiuscule complanatum pallide luteolum, *firmum subrigidum*; folia caulina late ovato-lanceolata falcato-acuminata subdenticulata planiuscula pallida subconflata areolata, basi flavida, nervis brevissimis obsoletis flavis, margine erecto, cellulis alaribus in *ventrem parvulum pulchellum rotundatum prominentem consociatis aureis laxiusculis, ad cellulas alares subauriculata.*

*Hypnum cupressiforme* Hook. et Wils. in sched. musc. antarct.

*Patria.* Insulae Aucklandi: J. D. Hooker.

**144. *H. aduncoides* C. Müll.;** *dioicum?* *procerum longirameum, ramis valde aduncis aureo-nitentibus parce ramulosis*; folia caulina *robusta longa, late ovata elongate falcate acuminata, cellulis albidis firmis veluti conflatis, alaribus inferioribus maxime ventricosis incrassatis hexagonis flavidis obscuris, superioribus paucis minutissimis obscuris incrassatis rhomboideo-quadratis, nervis brevissimis obsoletis.*

*Hypnum cupressiforme* *q. aduncoides* Brid. II p. 612.

*Patria.* Insula Bourbonis, alt. 6000': Bory St. Vincent.

Notis laudatis ab *H. cupressiformi* toto coelo differt et *Hypno adunco* magis aemulatur. Sterile tantum observavimus.

## Species incerta.

1. **H. intorto-plicatum** Łobarz. (in Haidinger's Naturw. Abh. I. p. 58.); cespites *aureo-lutei sericeo-nitentes* molles vel compactiores; caulis prostratus *debilis fragilissimus* parce bifurcatim ramosus, ramis inferioribus strictis elongatis simpliciusculis, summis abbreviatis tumescentibus fasciculatis, falcatis incurvis; folia late ovato-lanceolata, vel e basi late ovata longe acuminata, subintegerrima absolute enervia (?), apicibus carinate retrorsum oblique falcatis, *uberrime longitudinaliter plicata, intorta*, disticha v. secunda. †.

*Patria.* In regionibus collinis Podolicis Haliciae orientalis, agro Leopoliensi; ibidem in rupibus arenoso-calcareis Lisienicensibus, locis lucidis aridioribus, sociis *Hypno abietino, polymorpha* et *lutescente*, v. in praeruptis argillosis humidiusculis umbrosis, ad vias cavas per fruticeta Coryleta et Carpineta, rupibus memoratis vicina, sociis *Bryo pallente et elongato*: de Łobarzewski sterile legit.

Notis cursive impressis distincta species videtur. Ab auctore c. *H. cupressiformi* et *callichroo* comparata est.

B. *Cellulae alares vix ullae, vesiculaeformes fugaces.*

a. *Theca inclinata.*

α. *Caulis pennaeformis robustus.*

145. **H. Crista Castrense** L. (Sp. Pl. p. 1591.); *dioicum*; cespites proceri latissimi mollissimi; caulis elongatus deplanatus carinatus, in ramos elongatos dichotomos divisus, ramulis densissimis distichis regularibus tenuibus uncinatis late, summum apicem versus attenuate pinnatus, *amoene virescens v. lutescens sericeus, frondem plumaeformem pulcherrimam efficiens*; folia caulina angustissime lanceolata longe tenuiter acuminata maxime falcata *valde longitudinaliter plicata*, margine erecto superne subdenticulato, nervis vix ullis, cellulis maxime pallidis veluti in membranam conflatis; perichaetia lon-

gissime et turgide cylindraco-exserta, foliis longissime late lanceolato-acuminatis strictis elongate reticulatis enervibus valde plicatis denticulatis; theca in ped. elongato purpureo horizontalis majuscula, turgide arcuato-cylindrica subgibbosa firma brunnea, operc. conico obtusissimo brevi, annulo; perist. longissimum robustum, d. ext. subulati latere pallidi, interni in membrana altissima lutescente valde reticulata aequilongi, valde carinati flavidi, anguste perforati, ciliis aequilongis albidis nodosiusculis 3—6 laevibus.

Brid. II. p. 517. — *H. scalare* Zenk. et Dietr. Musc. Thuring. Exs. No. 26. — *H. Hedwigii* Lam. et Dec. Fl. Franç. n. 1348?

*Patria.* In sylvis umbrosis humidis, praeprimis montosis, rarius in planitierum pratis per totam Europam et in America septentrionali. — *Aestate et Auctumno.* Haud raro, sed rarissime fructificans.

146. *H. plumaeforme* Wils. (Lond. Journ. of bot. 1848. p. 277. t. 10.); dioicum? elongatum erectum pinnatim ramosum, ramis brevibus patentibus; folia falcato-secunda plus minus patentia ovato-lanceolata acuminata serrulata subnervia estriata; perich. longiora erecta attenuata; theca in ped. longissimo cernua arcuata cylindrica, operculo conico-apiculato. †.

*Patria.* In palude ad Tung-zan, ad littora prope Chusan Chinae: Anderson.

*H. Cristae Castrensi* simile, sed rami pauciores et folia haud striata. Ex animadv. auctoris inter speciem illam et *H. curvifolium* intermedium.

β. Caulis tener irregulariter pinnatus.

147. *H. mollescum* Hdw. (Musc. Fr. IV. p. 56. t. 22.); dioicum; *H. Cristae Castrensi* simile, sed multo humilior, prostratum, ramis magis vagis, haud angulate patentibus, magis irregulariter pinnatis, caule haud conspicuo, tereti, inferne ochraceo-lutescens, superne viridissimum; folia caulina minuta, lanceolata falcato-acuminata breviter, basi infima paulisper auriculato-dilatata,

cellulis alaribus vix ullis minutis subincrassatis praedita, *haud plicata*, caviuscula, margine erecto *ubique* denticulato, nervis vix ullis, cellulis breviter linearibus *viridibus conspicuis*; perich. *parum exserta brevia, haud plicata*, latius vaginanti-ovata longe tenuiter acuminata, laxius reticulata, firmissuscula, eroso-denticulata; theca in ped. *ascendente brevi, in angulo recto ab axi divergente flexuoso purpureo turgide horizontaliter et breviter ovalis, acute conico-operculata aequalis fusca, dein brunnescens*; perist. *H. Cristae Castrensis*, sed minus, internum pallidius et ciliis binis vel ternis.

Brid. II. p. 519. — *H. subrectifolium* Brid. II. p. 619! — *H. Crista Castrensis* Roth. Fl. Germ. III. p. 282 et al. — *H. Timmii* Brid. Musc. Rec. II. II. p. 123. — *H. compressum* Roth. l. c. p. 286. — *H. filicinum* Cristam Castrensem repraesentans. Dill. Musc. p. 254. t. 36. f. 20. A?

*Patria.* Ad rupes praesertim calcareas, in terra, pratis turfosis exsiccatis arborumque radices totius Europae, Asiae borealis et Americae septentrionalis; e planitiis in alpes ascendens. — *Auctumno et vere.*

148. **H. fastigiatum** Brid. (II. p. 620.); *dioicum*; *cespites turgidi subcompacti rubiginoso-virides*; caulis repens breviter pinnatus, ramulis *ascendentibus filiformibus hamulosis rigidis fastigiatis valde flexuosis*; folia caulina *densissime imbricata maxime falcato-secunda hamata*, anguste lanceolata longe tenuiter acuminata falcata, subintegerrima concava, margine *ubique* erecto, nervis *vix ullis*, cellulis *veluti conflatis chlorophyllose viridibus*, alaribus *paucissimis quadratis minutissimis granulosis*; perich. *stricta longe lanceolato-acuminata subplicata tenuiter laxe reticulata subintegerrima pallida*; theca in ped. longiusculo rubiginoso laevi inclinata anguste arcuato-cylindracea, ore constricto majori humore aequali, rubiginosa, operc. *breviter conico*; perist. d. ext. breviusculi pallidi, int. aequilongi flaviduli vix perforati laeves, ciliis binis separatis tenuissimis parum brevioribus interpositis.

*Hypnum Stereodon fastigiatus* Brid. II. p. 620. — *H. mammillatum* Fk. in sched. Forte quoque Br. et Sch. — *H. cupr. z. hamulosum* Brid. II. p. 610. — *H. cupr. μ. crispatissimum* l. c. — *H. cupr. σ. fragile* l. c. p. 611. — *H. cupr. τ. conicum* l. c. — *H. cupr.* var. capsulis inclinatis Hook. in Drumm. Musc. Amer. No. 206.

*Patria.* In regionibus alpinis praesertim calcareis Austriae, ubi pr. Sanct Gertrud im Martellthal Tirolis merid. detexit Funk 1826, Bavariae, Helvetiae, in alpi-bus Julicis et in America septentrionali. In altit. 7000' ped. observatum. — *Julio, Augusto.*

Characteribus datis cum nulla specie alia confundenda. Flos masc. minutus, fol. late ovatis, breviter acuminatis pallidis.

149. **H. falciforme** Dz. et Molkb. (Ann. sc. nat. 1844. 4. p. 306.); *monoicum*; prostratum subpinnatim ramosum robustum, ramis divaricatis remotis flexuoso-curvatis subsimplicibus apice attenuatis, foliis *squarrosulo-secundis* haud appressis indistincte deplanatis, *rigidis* sordide lutescentibus splendidibus; folia caulina dense imbricata *falcato-subsecunda, late oblongo-lanceolata, acumine lato obliquo v. falcato brevi*, margine ubique erecto superne subdenticulato, *caviuscula*, nervis breviusculis tenuibus, nitidis, cellulis angustissime linearibus subconflatis subserpentinis veluti striatulis sordide lutescentibus, alaribus vix ullis; perich. *numerosa valde exserta maxima late vaginantia et longissime flexuose loriformi-acuminata denticulata*; theca in ped. longissimo laevi purpurascente valido rigido *magna turgide ovalis brevicolla* horizontalis late annulata, operc. conico acuminato recto, humore depresso; perist. magni d. ext. lutei, intus tenuiter uncinata cristati, carnosissimi, interni aequilongi flaviduli rugulosi pertusi; ciliis binis conflatis rugulosis albidis vix brevioribus; calyptra sparse pilosa.

*Patria.* Java, monte Patoeha, unde habemus, Sumatra et Borneo: Hb. Lugd. Batav.

Ab *H. intorquato* proximo vestigiis descriptis differt.

150. **H. intorquatum** Dz. et Molkb. (Ann. d. sc. nat. 1844. 2. p. 307.); *dioicum*; laxe cespitosum decumbens vage ramosum, ramulis inaequalibus apicem versus haud brevioribus inaequaliter pinnatum, sordide viride flexuosum nitidum latiuscule complanatum; folia caulina laxe conferta, e basi *leviter arcuato - constricta ubique profunde concave subcomplicate* late lanceolato - acuminata breviter reflexo - falcata, margine erecto apice subdenticulato, nervis brevibus obsoletis, cellulis conflatis pallide viridibus maxime angustis, alaribus vix ullis vesiculaeformibus pellucidis; perich. late vaginantia plicata longissime acuminata multo laxius reticulata pellucida, *margine dentibus in cilia longissima filiformia articulata productis fimbriata, ext. minora et erose denticulata*; theca in ped. longissimo horizontalis v. nutans subcylindrica, operc. convexo breviter rostrato incurvo, *calyptra sparse pilosa*.

*Patria.* Sumatra, Java, monte Patoeha.

Fructum non vidimus. Ex habitu *H. curvifolio* haud dissimile, sed notis laudatis distinctissimum.

151. **H. globithea** C. Müll.; *monoicum*; *H. fertili* simillimum; folia caulina *profunde concava angustiuscule lanceolato - acuminata falcata, denticulata*, nervis brevibus *distinctis pallidis*, cellulis mollibus pellucidis subchlorophyllosis, alaribus *vix ullis pellucidis fugacibus*; perich. *H. fertili*, sed brevius acuminata, haud plicata; theca in ped. longissimo *tenui aurantiaco laevi substrictissimo horizontalis turgide globosa majuscula*, sicca ore constricta, humore aequalis, aurantiaca, operc. depresso recte acuminato, annulo latiusculo; perist. d. ext. latiusculi longi flavidi apice pellucidi, int. parum breviores lutei *recedentes*, ciliis binis brevioribus subalbidis subrugulosis.

*Patria.* Venezuela, prov. Caracas, prope Galipan, alt. 5000 ped., Januar. 1845: Funck et Schlim in Coll. Linden. No. 350 ex parte.

Flores masc. creberrimi. Quoad thecam globosam magnam ab omnibus congeneribus primo aspectu distinguitur.

152. **H. monumentorum** Duby (in Moritzi Syst. Verz. d. Zoll. Pfl. p. 132.); monoicum; late prostratum arcte *depressum tenerrimum minutum* vage intricato-pinnatum, virescens; folia caulina densius imbricata, anguste lanceolato-acuminata falcata, profunde concava, summo apice subdenticulata, margine ubique erecto, nervis *vix conspicuis*, cellulis elongatis *mollibus pellucidis, haud conflatis, basi laxiusculis*, alaribus utrinque singulis vesiculaeformibus pellucidis fugacissimis; perich. falcata parum longius acuminata; theca in ped. *brevi laevi* rubro horizontalis v. nutans *minutissime ovalis*, ore coarctata, brunnescens, minute annulata, operc. conico *micronulato*; perist. d. ext. minuti angustissimi, intus valde tenerrime cristati, pallidi, int. solidi angustissimi flavidi, ciliis singulis interjectis.

*Patria.* Java, in cimeterio Buitenzorg, monumentis van Kuhl et van Hasselt arcte adhaerens: Zollinger No. 1537.

*H. ichnotoclado* haud dissimile, characteribus autem accuratius laudatis species distinctissima.

153. **H. ichnotocladum** C. Müll.; dioicum; latissime cespitosum *longe repens* prostratum *gracile sordide viride* inaequaliter breviter pinnatum; folia caulina anguste lanceolata acuminata falcata, caviuscula, margine erecto superne denticulato, nervis brevibus *distinctis viridiusculis tenuibus*, cellulis viridibus densissimis subconflatis, alaribus vix ullis pellucidis fugacibus; perich. late vaginantia reflexa longe acuminata, basi laxius reticulata, denticulata; theca in ped. *breviusculo brunnescente* horizontalis *parvula ovalis aequalis brunnescens*, operc. conico acuto brevi, annulo parvulo; perist. minutum, ext. flavidum, int. aequilongum fuscidulum perforatum ciliis aequilongis albidis *solitariis*.

*Hypnum Chamissonis* Mont. in Hb. Miquel.

*Patria.* Java, prov. Buitenzorg: Miquel Hb.

*H. intorquato* haud dissimile, sed toto coelo structura interna et ramis gracilibus distans et notis laudatis pro-

pria species. Ab *H. Buitenzorgi* ramis tenuibus, foliis haud serrulatis brevioribus anguste lanceolatis jam facile distinguitur.

154. **H. Australe** C. Müll.; cespites lati humiles depressi *compacti lutescentes nitidi*; caulis *pusillus parce pinnatim ramosus*, ramis simplicibus *brevissimis*, *apice incurvis*; folia secunda, *parum falcata*, e basi anguste ovata angustissime lanceolato - acuminata, caviuscula, acumine longiusculo tenui subfalcato *subcrinito*, *marginē erecto integerrimo*, nervis binis brevissimis obsoletis, cellulis angustissimis subconflatis pallescentibus, alaribus vix ullis; perich. elongata recurva integerrima crinita; theca in ped. *brevi laevi rubro suberecta*, *cylindraceo-oblonga*, *operc. brevi conico apiculato*.

*H. Terrae-Novae* var.  $\beta$ . *Australe* Hook. et Wils. in Fl. Antart. I. p. 142. t. 61! non Brid.!

*Patria.* Insula Cambelli, in sylvis ad plantas putridas terrestres: J. D. Hooker.

Notis laudatis facile discernibile. Fructus nobis haud visus.

b. *Theca nutans.*

155. **H. Buitenzorgi** Bél. (Voy. dans l'Indie Or. Bot. II. Crypt. p. 94. t. 11. f. 1.); *dioicum*; late cespitosum *flavescens* nitidulum, longe repens dense breviter pinnatum deplanatum; folia caulina laxè imbricata, e basi subconstricta, cellulis alaribus vix ullis fugacibus pellucidis vesiculaeformibus praedita, subauriculatâ lanceolato - acuminata falcata, *valde irregularia*, *plus minus plicata v. implana* caviuscula, *marginē erecto apice serrulato*, nervis longiusculis parallelis saepe obsoletis, cellulis densis elongatis angustissimis; perich. late vaginantia robustiora longius acuminata subreflexa, *serrulata*, laxius reticulata, plicatula; theca in ped. *breviusculo* purpureo nutans parvula oblonga, medio constricta, annulata, operculo depresso, recte conico acuto; perist. parvuli d. int. flavi, ciliis binis albidulis interjectis; calyptra *glabra*.



*Patria.* Java, prov. Buitenzorg, ubi in montibus altioribus primus legit Bélanger; ex Hb. Miqueliano quoque formam minorem accepimus.

Characteribus explicatis ab *H. intorquato* longe differt.

**156. *H. Moritzii*** C. Müll.; *monoicum*; *H. Buitenzorgi* simile; folia caulina e basi *magis concava margine plus minus involutacea* lanceolato-acuminata parum falcata, irregularia, plus minus plicata v. implana, nervis longiusculis semper distinctis pallidis nitidis, cellula alari *unica persistente majuscula vesiculaeformi pellucida*, caeteris obsoletis; perich. ext. caulinis multo minora ovato-acuminata, sequentia magna robusta subauriculata, interiora basi valde dilatata, omnia dense areolata falcata nervosa, intima stricta, basi laxe reticulata, minus serrulata; theca in ped. breviusculo gracili laevi purpureo nutans parva ore constricta ovalis, operculo turgide conico oblique rostellato, annulo latiusculo; perist. parvi d. ext. pallide flavidi, int. lutei valde compressi perforati, ciliis brevibus singulis v. binis.

*Hypnum venustum* Dub. (non Hsch. et R.) in Moritzi Verz. d. Zolling. Pfl. p. 131.

*Patria.* Java: Zollinger No. 1528.

**157. *H. cupressoides*** C. Müll. (Bot. Zeit. 1845. p. 109.); *monoicum*; prostratum *tenellum gracile*, ramis brevibus erecto-patentibus apice subfalcatis *planissimis* inflectentifoliis stramineis apicem versus caulis brevioribus, firmissculis pinnatulum; folia caulina dense imbricata falcato-secunda, e basi latiuscula anguste lanceolata caviuscula, superne subdenticulata, margine erecto, nervis parallelis pallidis vix conspicuis brevibus, cellulis pallidis in membranam veluti conflatis, *alaribus vix ullis minutis pellucidis*; perich. late lanceolata vaginantia, elongate latiuscule acuminata denticulata, interna stricta, laxius reticulata enervia; theca in ped. breviusculo purpureo flexuoso tenui *nutans minute obconica, deoperculata ovalis*, ore constricta, fuscidula, annulata, operc. turgide conico *depresso*, oblique rostellato rufo; perist. *H. mollusci*, in-

ternum fuscidulum, ciliis brevioribus 1—2 albidis subrugulosis conflatis.

*H. cyparissoides* Wils. in Gardner Musc. Bras. No. 111!

*Patria.* Brasilia, ad lapides m. Corcovado: Gardner No. 111.

Ab *H. cupressiformi* notis lautatis facillime distinguitur.

**158. H. aeruginosum** C. Müll.; *monoicum*; *H. cupressoidi* proximum, sed decumbens, haud prostratum, molluscoides, inferne ochraceum, superne aeruginoso-viride; folia perich. in pilum elongatum nodosiuscule flexuosum, e cellularum incrassatarum longarum seriebus duabus compositum producta; pedunculus elongatus; perist. interni ciliis binis separatis.

*Hypnum cupressoides* C. Müll. in Linn. XIX. p. 220 et Bot. Zeit. 1848. p. 781.

*Patria.* Venezuela, prov. Caracas, Galipan, alt. 5000, terrestre: Dr. Karsten, dein Funck et Schlim, in Coll. Linden. No. 347. *Januario.*

Ab *H. mollusco* habitu valde simili jam thecae forma refugit. Theca annulata?

**159. H. cyparissoides** Hsch. (Fl. Bras. I. p. 88.); *monoicum*; surculus 1—2 uncialis rufus ascendens aliquoties divisus, ramis erectis subpinnatis, ramulis brevibus subsecundis; folia caulina dense imbricata secunda subfalcata oblonga acuminata obliqua integerrima nervia (?) concava, laete virentia, cellulis linearibus confertis; perich. intima lanceolata longissime acuminata subvaginata, margine inflexa, plicata, exteriora ovata acuta v. oblongo-acuminata concava; theca in ped. unciali erecto subflexuoso laevi purpurascente, apice parum incrassato et incurvo nutans v. cernua obconica, deoperculata oblonga laevis brunnea, ore purpureo, operc. hemisphaerico brevirostro; perist. *H. cupressoidis*. †.

*Patria.* Brasilia, in districtu adamantium, Majo: Martius.

*H. recurvanti* auctor comparavit, *H. cupressoidi* proximum tamen et notis illustratis sat distinctum videtur.

**160. H. apiculatum** Hsch. (Fl. Bras. I. p. 87.); *monoicum*; repens vage ramosum, ramulis subaequalibus apicem versus sensim brevioribus pinnatum, tenellum molle luteum; folia caulina lanceolato-acuminata falcata, basi subrotundata, interdum subconstricta caviuscula, margine erecto inferne subdenticulato superne serrulato, nervis distincte conspicuis flavidis subaequalibus brevibus, cellulis elongatis angustissimis densis viridibus, alaribus subnullis; perich. vaginantia erecta apice recurvata longissime acuminata argute serrulata laxius reticulata; theca in ped. longiusculo tenerrimo purpureo laevi obovata truncata subaequalis cernua interdum subpendula, deoperculata ore valde constricta urceolata rugulosa fusca, exanulata (?), operc. hemisphaerico apiculato pallidiori; perist. d. ext. late lanceolato-subulati, int. in membrana lutea solidi, ciliis interjectis.

*Patria.* Brasilia, pr. Tijuca et in monte Corcovado, in vicinia Sebastianopoleos: Olfers; pr. Salgado ad flum. S. Francisci in prov. Minarum, Septembri: Martius.

*H. mollusco* habitu simile; *H. aeruginoso*, a quo notis cursive impressis differt, foliis subplanissimis, basi late truncatis distat. Fructum non vidimus.

**161. H. Chamissonis** Hsch. (Hor. Phys. Berol. p. 66. t. 13, sed partibus omnibus robustius delineatum!); *monoicum*; latissime cespitosum luteo-viride molluscum subsericeum, longe repens, ramis subaequalibus patentissimis teneris apicem caulis versus sensim brevioribus pinnatum; folia caulina laxa conferta valde secunda, e basi plerumque latiore truncata anguste lanceolato-acuminata falcata planiuscula, margine plano ubique subdenticulato, nervis brevibus distinctis pallidis, cellulis angustissime elongate linearibus pellucidis distinctis, alaribus vix ullis vesiculaeformibus pellucidis fugacibus; perich. latiora vaginantia longius acuminata vix falcata; theca in ped. tenuissimo longiusculo purpurascens laevi nutans

*minutissima vix conspicua* urceolata, sicca ore maxime constricta, fuscidula annulata, operc. e basi depressa obliquo brevirostri; perist. minuti dentes ext. angusti pallidi aciculari-subulati, int. *angustissimi imperforati* subaequilongi fusciduli, in membrana *brevi* positi, ciliis *solitariis subrudimentariis*.

*Hypnum (Stereodon) Chamissonis* Brid. II. p. 617.

*Patria.* In arboribus insulae Radack: A. de Chamisso.

Ab *H. aeruginoso* simillimo notis illustratis differt.

**162. *H. dealbatum*** Hsch. et Reinw. (Nov. Act. Acad. Caes. Leop. XIV. II. Suppl. p. 729. 1827!); *monoicum*; procumbens vage ramosum, ramis *flaccidis teneris mollissimis pallidis laxifoliis* inaequalibus subsimplicibus, compressis parum cupressiformibus; folia caulina *pallide viridia laxissime imbricata tenera angusta lanceolata acuminata parum falcata*, superne denticulata, caviuscula, nervis tenuissimis pallidis breviusculis, cellulis *pallidissimis angustissimis*, alaribus *obsoletis vix ullis vesiculiformibus pellucidis*; perich. late vaginantia in acumen longissimum subfalcatum subdenticulatum producta, laxe reticulata, subnervia; theca in ped. elongato laevi purpureo tenui nutans obovata, deoperculata urceolato-oblonga, laevis badia, operc. elongate conico acuto; perist. d. ext. late lanceolati subulati badii, int. lutescentes, aequilongi, ciliis solitariis albescentibus, apice interdum subhiantibus.

*Hypnum ochron* Schwägr. Suppl. III. II. 2. t. 285. (1830.)! — *H. Vriesii* Dz. et Molkb. in sched. e monte Sakoembang Javae.

*Patria.* Java, ubi detexit Reinwardt.

Flos masc. minutissimus, femineus turgidus. Ob vestigia cursive impressa facile discernibile. *H. graciliseto* haud dissimile.

**163. *H. incubans*** Hsch. et Reinw. (in Nov. Act. Acad. Caes. Leop. XIV. II. Suppl. p. 730.); *H. dealbato* simile, sed viride et brevius ramosum; folia caulina *e basi late truncata, inde plerumque valde coarctata longius et*

*distincte falcato-acuminata* superne distinctius dentata; perist. d. int. imperforati, ciliis binis conflatis albidis.

*Patria.* Java: Reinwardt.

*H. dealbati* forsan varietas.

Species steriles tantum notae.

164. **H. regulare** C. Müll.; *caulis flavidus conspicuus, prostratus elongatus flaccidus, ramis laxe approximatis permultis subaequalibus brevibus gracilibus subplanissimis lutescentibus patentissimis eleganter pinnatus; folia caulina dense conferta, anguste lanceolata falcata, apice denticulata, cellulis subconflatis pallidis, alaribus vix ullis minutissimis, margine ubique erecto, nervis brevibus obsoletis.*

*Hypnum (Stereodon) cupressiforme* ζ. *regulare* Brid. II. p. 609.

*Patria.* Insula Bourbonis, ad terram et in caudicibus palmarum: Bory St. Vincent.

Ex habitu eleganter pinnato *Vesiculariis* aemulans et notis cursive impressis ab *H. cupressiformi* longissime refugiens. Sterile tantum vidimus.

165. **H. viridulam** Brid. (Mant. Musc. p. 179.); *tenuissimum exiguum repens, ramis brevissimis viridulis planissimis; folia caulina minuta, lanceolata breviter acuminata, parum falcata, caviuscula, tenuiter subdenticulata, nervis brevissimis viridulis saepe obsoletis, cellulis viridibus, alaribus vix ullis minutis pellucidis.*

*Hypnum (Stereodon) leptorrhynchum* β. *viridulum* Brid. II. p. 622.

*Patria.* Insula Bourbonis: Bory St. Vincent.

Ab *H. leptorrhyncho* parum affini notis explicatis toto coelo differt. Ab *H. regulari* proximo exiguitate, colore et foliis parum falcatis jam primo adspectu distinguitur. Sterile tantum observavimus.

C. *Cellulae alares distinctae vesiculaeformes.*

a. *Folia caulina margine plus minus revoluta.*

166. **H. recurvans** Schw. (Suppl. II. II. p. 289. t. 146.); *dioicum; late cespitosum procumbens depressum*

laete viride v. flavescens nitidulum, ramis *brevibus intertextis* latiuscule complanatis; folia caulina dense imbricata *parum secunda*, e basi parum constricta latiuscule ovato-lanceolata superne subdenticulata, acumine flexuoso plus minus longo et falcato *summo apice praesertim serrato* terminata, margine ubique fere parum reflexo, nervis *obsoletis flavidis*, cellulis pallidis *basi flavidis*, alaribus *globosis turgidis flavidis superioribus paucis laxis pellucidis*; perich. latiora vaginantia, *basi laxe reticulata et flavida*, margine magis reflexo, apice serrata; theca in ped. mediocri purpureo laevi inclinata *turgide ovalis brevis* subcernua aequalis fuscidula, *exannulata*, operc. turgide conico oblique subulato leptodermi; perist. d. ext. pallidi lati longi, int. subaequilongi pallide luteoli subrugulosi imperforati, ciliis *solitariis* latiusculis brevioribus subrugulosis interpositis.

*Hypnum* (*Stereodon*) *recurvans* Brid. II. p. 614. — *Leskea recurvans* Mich. Fl. Am. Bor. II. p. 311. — *L. squarrosa* Mich. l. c. p. 312. — *L. arcuata* Brid. Sp. Musc. II. p. 54.

*H. amoenum* Hook. in Drumm. Musc. Am. No. 196! — *H. recurvans* var. Sulliv. Musc. Allegh. No. 18. — *H. cupressetorum* Brid. II. p. 409!

*Patria.* America septentrionalis, ubi in Carolina detexit Michaux, in monte Grandfather Carolinae superioris: Sullivant, in Pensylvania: Mühlenberg, in republica Massachusets: Dewey, e Florida habemus; in insula Terre Neuve: La Pylaie. Haud rarum videtur.

Ab *H. cupressiformi* notis cursive impressis longe refugit.

167. **II. cylindricarpum** C. Müll.; *dioicum*; cespites late *prostrati appressi luteo-virides*, haud sericei; caulis repens vage ramosus, ramis inaequalibus *gracilibus compressis*; folia caulina erecto-patula, parum falcato-secunda, *longe anguste lanceolato-acuminata curvato-falcata*, acumine *tenui longo subdenticulato*, concava, margine inferne vel ubique fere parum reflexo, nervis *obsoletis*, cellulis linearibus virescentibus, *basi flavidis*, alaribus *superioribus paucissimis quadratis pellucidis*, in-

*ferioribus utrinque ternis parvis subglobose vesiculaeformibus flavidis; perich. majora robustiora erecta, magis dentata, basi laxe flavide reticulata; theca in ped. elongato purpureo laevi erecta, elongate cylindrica angusta fuscidula leptodermis, exannulata, operc. conico oblique subulato longiusculo; perist. d. ext. longiusculi lutei, apice serrulato-hyalini, int. aequilongi laeves in membrana robuste reticulata flavidâ angusti pertusi, latere angustissime limbati robuste articulati laeves flavidi, ciliis nullis v. rudimentariis brevissimis.*

*Leskea polyantha* var. Sulliv. Musc. Allegh. No. 60. — *L. tenuirostris* Br. et Sch. in litt. ad Sullivant!

*Patria.* Ad imum scopulum Table Mountain dictum Carolinae superioris, in truncis prostratum: Sullivant, qui et ex Ohione quoque nobis benevole misit.

Notis cursive impressis ab *H. polyantho* toto coelo differt et *H. recurvanti* haud dissimile.

168. **H. Duisabonae** C. Müll.; *monoicum*; caulis repens homomallophyllus arcte adhaerens subtus radiculosus, ramis erectis vix curvatis *valde compressis pseudo-complanatis vix homomallophyllis e luteo fulvescentibus* brevibus v. altiusculis subsimplicibus; folia caulina *laxe patentia* subsecunda latiuscule ovato-acuminata, integerrima, concava, margine *convexo-revoluto veluti erecto*, nervis brevissimis flavidis, cellulis *H. Loxensis*; perich. anguste lanceolata longius acuminata profunde concava, basi laxe et flavide reticulata; theca et peristom. *H. Loxensis*.

*Leskea Duisabonae* Mont. Ann. d. sc. nat. 1845. 4. p. 97.

*Patria.* Ad caules *Macromitrii Mauritanii* adrepens in insula Mauriti leg. Duisabo.

Ab *H. Loxensi* affini notis cursive impressis prorsus recedit.

169. **H. propinquum** Harvey (in Hook. Ic. Pl. Rar. t. 24. et Lond. Journ. of bot. 1840. 2. p. 19.); *monoicum?* caulis longiuscule repens, radiculis *stellatim dispositis* adhaerens, filiformis foliosus deplanatus flexuosus, ramis

brevibus simplicibus *curvatis* complanatis *luteo - fulvis*; folia caulina falcato - secunda conferta, *late ovato - lanceolata* acuminata, acumine latiusculo breviusculo denticulato falcato, margine erecto v. indistincte reflexo, planiuscula, *superne subplicata*, nervis obsoletis, cellulis elongate linearibus subconflatis pallidissimis v. lutescentibus, basi flavidis, alaribus superioribus paucissimis laxe quadratis pellucidis, inferiorib. parvis vesiculaeformibus utrinque quaternis flavidis; theca inclinata cylindracea, operc. e convexo longirostro.

*Patria.* India borealis.

Fructum non vidimus. *H. recurvanti* haud dissimile.

170. *H. curvulum* Hook. (Ic. Pl. Rar. t. 23. f. 7. — Harvey in Lond. Journ. of bot. 1840. p. 18.); *monoicum?* cespitosum; caulis erectus vage ramosus, ramis brevibus indistincte deplanatis curvulis lutescentibus; folia caulina *H. propinqui*, sed cellulis distinctis haud conflatis, nervis distinctis brevissimis; theca in ped. brevi subinclinata *ovato - oblonga*, operc. recte rostrato.

*Patria.* Nepal.

*H. propinqui* forsitan varietas. Incompletum et sterile tantum vidimus.

171. *H. Schlimii* C. Müll. (Bot. Zeit. 1848. p. 781.); *monoicum*; procumbens vage ramosum *tenellum humile albide viride*, ramis brevibus; folia caulina laxiuscule conferta, e basi subconstricta *anguste lanceolata*, acumine *elongato* parum falcato subdenticulato, margine paulisper *revoluto*, *cymbiformi - concava*, nervis obsoletis flavidis, cellulis pallidis basi flavidis, alaribus *vesiculaeformibus flavidis*; perich. longius acuminata *dentata angustissima*, basi laxius et flavide reticulata; theca in ped. breviusculo ascendente purpurascente laevi *horizontalis*, *minute gibboso - obovata pallide ochracea*, operculo *turgide conico aurantiaco longe aciculari obliquo*, deoperculata sicca subarcuata, ore constricta, *aurantiaca*; perist. *minuti* d. ext. pallide lutei, int. breviores flavidi, ciliis *solitariis* brevioribus.



*Patria.* Venezuela, prov. Caracas prope Galipan, alt. 5000 ped., in arborib. putridis: Funck et Schlim in Coll. Linden No. 354. Januario 1845.

Habitus *H. cupressiformis* minoris, theca *H. mollusci*, sed multo minor, diverse colorata et operculo aciculari. Notis cursive impressis facile discernibile.

172. **H. Gueinzii** Hmp. (Ic. Musc. t. 12); *monoicum*; laxiuscule cespitosum procumbens vage ramosum, ramis angustiuscule complanatis luteo-viridibus breviusculis caudaeformibus curvulis simplicibus; folia caulina e basi angustius constricta anguste lanceolato-acuminata falcata profunde concava, denticulata, margine basi parum revoluta, nervis obsoletis brevissimis flavidis, cellulis virescentibus submollibus basi flavidis, alaribus majusculis longiuscule vesiculaeformibus pellucidis v. flavidulis; perich. latius vaginantia ovato-lanceolata, acumine brevi parumque reflexo, margine erecto v. subinvoluta superne dense eroso-serrulata, nervis obscuris flavidis longiusculis, cellulis basi laxis flavidis; theca in ped. varie arcuato-flexuosa purpureo laevi breviusculo inclinata plus minus nutans minutiuscule obovalis, ore valde constricta fuscidula pachydermis, operc. conico longe oblique rostrato purpurascente, annulo nullo; perist. *H. leptocarpi*.

*H. cupressiforme* var. Hsch. in Drègei Musc. Cap.

β. *prostrata*; viridis sordida, folia robustiora minus falcata.

*Patria.* Prom. b. spei, ubi locis haud designatis primus legit Drège; Port Natal: Gueinzius. Var. β. ad truncos arborum, ut videtur aqua irroratos, pone Swellendam, Oct. 1834: Pappé.

Ab *H. cupressiformi* notis laudatis differt.

b. *Folia caulina margine erecto.*

a. *Tenella.*

c. *Pedunculus laevis.*

173. **H. Dregei** C. Müll.; *monoicum*; *H. Gueinzii* simillimum, sed folia angustissime lanceolata longe fal-

*cato - acuminata planiuscula*, margine apice denticulato, *ubique erecto*, cellulis *pallidis*, alaribus parum minoribus *semper flavidis*; perich. *longissime subfiliformi-acuminata enervia denticulata*, margine *subrevoluto*, cellulis alaribus maximis subpellucidis, caeteris basilaribus flavidis laxis; theca in ped. magis erecto pendula *oblonga* ore constricta exannulata; operculum et peristomium *H. Gueinzii*.

*Hypnum* 8048: Drège.

*Patria.* Prom. b. spei, in locis non indicatis: Drège; pr. Philippstown: Gueinzius; pr. Zwellendam: Pappé.

174. *H. gracilisetum* Hsch. et R. (Nov. Act. Acad. Caes. Leop. XIV. II. Suppl. p. 727.); *monoicum*; longe repens, ramis prostratis deplanatis teneris flavescens nitidis parce divisis brevibus intertextis subpinnatim vage ramosum; folia caulina parum falcato-secunda, laxè imbricata, e basi in collum longiusculum angustum coarctata, cellulis alaribus parvulis ternis teneris veluti obsoletis pellucidis v. subflavidis praedita anguste oblonga, acumine breviusculo falcato, margine erecto superne tenuiter denticulato, cellulis pallide luteolis veluti conflatis, basi parum flavidis, nervis obsoletis; perich. erecta longissime acuminata vaginantia denticulata; theca in ped. creberrimis longissimis subtenuissimis arcu maximo flexuosis laevibus purpureis minute obovata suberecta inaequalis, orificio saepe oblique posito, fusco-badia, exannulata (?), operc. concolori minute conico acuto; perist. d. ext. fuscescentes, int. aequilongi latiusculi solidi flavidi, ciliis 1—2 aequilongis albidis.

Schwägr. Suppl. III. 1. 1. t. 220.

*Patria.* Java, monte Patua: Reinwardt.

Ramis tenuibus veluti squarrosulo-foliosis planis luteolo-splendentibus, pedunculis et theca species facile cognoscenda, a Schwägrichen hermaphrodita false observata.

175. *H. cyparoides* Brid. (Musc. Rec. II. II. p. 138. t. 3. f. 4.); *monoicum*; pusillum tenellum depressum vage ramosum sordide lutescens, ramis brevibus tenuibus te-

*neris* subsimplicibus planis irregulariter pinnatum; folia caulina *angustissime lanceolata*, in acumen tenuissimum elongatum subulatum valde falcatum subintegerrimum producta, planiuscula, pallide lutescenti-areolata, cellulis basi flavidulis, alaribus utrinque ternis majusculis vesiculaeformibus flavidis, nervis vix ullis flavidis; perich. late vaginantia acuminata erecta denticulata; theca in ped. tenuissimo breviusculo laevi rubiginoso horizontalis v. nutans minute ovalis, ore constricta, deoperculata aequalis, exannulata, operc. turgide conico longe aciculari flexuoso vix conspicuo tenuissimo; perist. minuti d. ext. pallide lutei, int. aequilongi, ciliis tenuissimis singulis interpositis.

*Hypnum* (*Stereodon*) *leptorrhynchum* Brid. II. p. 621. ex parte.  
— Schw. Suppl. I. II. p. 295. t. 93.

*Patria.* Nova Hollandia: La Billardiere ad arbores legit.

Exiguitate et notis illustratis facile discernibile. Flores masc. minutissimi, in vicinia feminei, plures.

**176. *H. leptorrhynchum*** Brid. (II. p. 621, ex parte, sub *Stereodonte*); flos masculus et habitus *H. cyparoidis*, sed pallidius luteum, folia *profunde concava*, in subulam latiore denticulatam saepe varie flexuosam falcatam producta; perich. magis denticulata; pedunculus *longissimus*, theca *angustissime cylindraceo-oblonga*; caetera *H. cyparoidis*.

*Patria.* Insula Bourbonis: Bory St. Vincent ad terram legit.

**177. *H. callidum*** Mont. (Ann. d. sc. nat. 1845. 4. p. 90.); *monoicum*; *H. leptorrhyncho* simillimum; rami deplanati quidem, sed *turgidiusculi haud plani*, lutescentes; folia in subulam longissimam tenuissimam subintegerrimam valde falcatam haud flexuosam producta, cellulis alaribus *pellucidis*; perich. late convolutacea ovata breviter acuminata, cellulis incrassatis conflatis, basi laxioribus flavidis creberrimis; theca in ped. breviusculo cylindraceo-oblonga; caetera *H. cyparoidis*.

*Patria.* Chile, ad corticem arborum: C. Gay.

Flos masc. minutissimus femineo approximatus.

178. **H. leucocytus** C. Müll.; *monoicum?* *H. cyparoidi* simile, sed rami *robustiores distincte uncinati*, folia caulina *maxime secunda*, parum latiora, cellulis basilari-  
bus flavidis, alaribus turgide vesiculaeformibus *pellucidis*; pedunculus *crassus* brevis, theca *cylindracco-oblonga* aequalis subnutans.

*Hypnum leptorrhynchum* Hook. et Wils. in sched. musc. antarct. et Fl. Ant. I. p. 141.

*Patria.* Insulae Aucklandi: J. D. Hooker.

Operculum et perist. perfectum non vidimus.

179. **H. Scorpiurus** Mont. (Ann. d. sc. nat. 1845. 4. p. 90.); caulis repens, ramis assurgentibus subcompressis humilibus mollibus stramineis parce divisis, apice *tenui cuspidato incurvo*; folia caulina laxè imbricata subfalcato - secunda, oblongo - lanceolata longe falcate latiuscule acuminata integerrima, caviuscula, margine erecto v. parum involutaceo, nervis obsoletis, cellulis longiusculis pallidis, basi flavidis, alaribus majusculis flavidis quaternis superne semel articulatis; perich. erecta longe vaginanta subplicata laxè reticulata basi flavida, brevius acuminata subdenticulata; theca in ped. brevi badio laevi horizontalis oblonga badia, exannulata, operc. conico rostrato obliquo; perist. d. ext. robusti rufescentes, latere valde cristati et linea media valde exarati, int. aequilongi subpertusi flavi, ciliis interjectis binis.

*Patria.* Chile: C. Gay.

β. Pedunculus scaber.

180. **H. subscabrum** C. Müll.; *monoicum*; *H. cyparoidi* simile, *maxime secundifolium*; folia caulina angustissime lanceolata, in acumen *latiusculum longum denticulatum* valde falcatum producta, *profunde concava*, margine erecto rarissime vix reflexo, nervis obsoletis, cellulis anguste linearibus pallidis, basi flavidis, alaribus utrinque ternis parvulis vesiculaeformibus flavidis; perich.

caulinis latiora, minus falcata erectiuscula, *distinctius denticulata*; theca in ped. *elongato apice vix conspicue scabro in collum arcuatum incrassato* purpureo nutans v. horizontalis minute oblonga, ore siccitate et humore aequali, brunnescens exannulata, operc. conico oblique subulato; perist. minuti d. ext. intus valde cristati lutei, int. flavidi solidi, ciliis brevibus tenerrimis albidis singulis.

*Patria.* Venezuela, prov. Merida prope Merida, alt. 6500' in arboribus, Sept. 1846: Funck et Schlim in Coll. Linden. No. 995. ex parte.

Notis cursive impressis ab *H. cyparoide* longe distans et *H. Schlimii* haud dissimile.

**181. H. Borbonicum** C. Müll.; *monoicum; tenuissimum tenerrimum* repens, ramis brevibus *apice homomallophyllis curvatis* luteo-viridibus; folia caulina *erecto-patentissima* sparsa, sicca subcrispata, *angustissime lanceolato-subulata* subflexuosa, apice solo tenuissime serrulata, margine erecto v. subinvoluta, nervis obsoletis, cellulis angustissimis longiusculis vix conspicuis pallidis, papillis autem seriatim dispositis creberrimis scaberrimis obscuris, basi amoene flavidis, alaribus prominentibus majusculis hyalinis plerumque binis; perich. latius vaginantia longe subulata, caulinis similia; theca in ped. breviusculo tenerrimo, *apice solo papilloso* arcuato, *minutissime ovalis*, vix conspicua subpendula, ore constricta, fuscidula (annulata?) rugulosa, basi annulari-strumosa, operc. conico longe aciculari recto; perist. minutissimi d. ext. flavidi involuti, linea perpendiculari profunde sulcati, int. fusciduli angustissimi solidi, ciliis singulis brevibus albidis interpositis.

*Leskea Borbonica* Bélanger Voy. d. l'Ind. or. Bot. II. partie Crypt. p. 97. t. 11. f. 2.

*Patria.* In arbor. trunc. vetustis insulae Bourbonis: Bélanger.

Ab *H. scaberulo* intimo et simillimo notis cursive impressis differt et species tenerrima elegantissima.

182. **H. constrictum** C. Müll.; caulis procumbens divisus ramosus, ramis vagis ascendentibus compressis apice leniter incurvis; folia caulina densiuscule imbricata, subsecunda, *ovato-lanceolata acuminata, integerrima, laevia, prorsus enervia (?)*, luteo-viridia, nitentia, tenerrime oblongo-areolata; perich. parva ovata acuta enervia; theca in ped. erecto rufescente scabriusculo *erecta ovata, ore paulum constricta, ferrugineo-fusca*; perist. d. ext. succinei, int. albid. †.

*Leskea constricta* Brid. Sp. Musc. II. p. 79 et Br. univ. II. p. 290.

*Patria.* Insula Bourbonis: Aubert du Petit Thouars.

*H. Borbonico* proximum et characteribus supra expositis specificè diversum videtur.

b. *Robustiora.*

183. **H. amoenum** Hdw. (Sp. Musc. p. 292. t. 77.); *monoicum; intertextum repens vage ramosum, ramis breviusculis subdecumbentibus valde uncinatis sordide viridibus*; folia caulina *maxime falcato-secunda*, e basi subconstricta anguste lanceolata longe falcato-acuminata *subintegerrima*, concava, margine erecto, nervis obsoletis, cellulis pallidis subconflatis, basi flavidis, alaribus *magnis turgidis pellucidis*; perich. late ovato-acuminata superne denticulata; theca in ped. *crasso breviusculo arcuato-flexuoso* rigido laevi aurantiaco horizontalis ovalis parvula, *basi annulari-strumosa* pachydermis.

*Isothecium amoenum* Brid. II. p. 382, excl. planta Humboldtiana Andensi.

*Patria.* Nova Seelandia: Banks? in Hb. Hedwigiano; insula Eremitae ad Cap. Horn: J. D. Hooker.

Theca deoperculata hucusque observata. Notis curvae impressis primo momento ab omnibus congeneribus distat.

184. **H. leptocarpon** Schw. (Suppl. II. II. 2. p. 171. t. 200.); *monoicum*; dense cespitosum decumbens intertextum, ramis vagis brevibus irregulariter dispositis la-

tiuscule complanatis apice vix secundis sordide viridibus nitidulis; folia caulina dense conferta *vix secunda, anguste oblonga, apice sinuate constricta et acumine elongato flexuoso subdenticulato haud falcato latiusculo terminata, margine hic illic involutaceo*, nervis obsoletis, cellulis pallidis elongatis densis, basi laxioribus flavidis, alaribus magnis vesiculaeformibus hyalinis; perich. caulinis similia, sed latius vaginantia, laxius reticulata et acumine breviori dense serrulato terminata; theca in ped. elongato rigido purpureo, *in collum longiusculum subscabrum arcuatum incrassato crassiusculo maxime pendula ad pedunculum appressa, anguste cylindraceo-clavata, ad collum triplare annulate callosa*, fuscidula, exannulata pachydermis, operc. *longe aciculari flexuoso*; perist. d. ext. breves densissime approximati carnosi, int. in membrana flavida *densissime transversali-striata maxime compressi angustissimi* solidi aequilongi tenues, ciliis solitariis pellucidioribus tenuissime subulatis basi latioribus.

*Leskea cirrhifolia* Mont. (non Schw.) in Hb. Miquel. — *Hypnum cylindricum* Hsch. et Reinw. Nov. Act. Acad. Caes. Leop. XIV. 2. Suppl. p. 728. (1829.).

*Patria.* Java, prov. Buitenzorg: Miquel benevole communicavit.

Flos masc. minutissimus vix notabilis. Species quoad characteres explicatos distinctissima memorabilis et facillime discernibilis.

185. **H. Molkenboerianum** C. Müll.; *monoicum*; longe prorepens flexuosum vage ramosum, ramis assurgentibus subsimplicibus sordide flavidis nitidis *latiuscule complanatis, brevibus subcurvatis*; folia caulina laxe falcato-subsecunda vel inflectentia late ovato-lanceolata acuminata, acumine *tenuiter subulato denticulato subfalcato*, margine erecto, nervis obsoletis, cellulis pallidis angustissime linearibus basi flavidis, alaribus inferioribus magnis vesiculaeformibus flavidis haud constrictis, superioribus paucis laxis pellucidis; perich. late vaginantia longe acuminata stricta laxius reticulata, basi flavida;

theca in ped. elongato flexuoso purpurascente laevi erecta v. parum inclinata *majuscule* oblongo - cylindrica pachydermis fuscidula, operc. conico - rostrato obliquo; perist. d. ext. late lanceolati subulati elongati flaviduli, int. in membrana brevissima aequilongi externis subadnati flavidi latiusculi, perforati, ciliis rudimentariis solitariis.

*Leskea falcata* Dz. et Molkb. Ann. d. sc. nat. 1844. 4. p. 310.

*Patria.* Borneo.

Flos masc. minutus, plerumque abortus, foliis obtuse ovatis. *H. neckeraceo* simillimum, sed notis cursive impressis distans.

**186. *H. neckeraceum*** C. Müll.; *dioicum*; *H. Molkenb.* simillimum, sed *angustius* complanatum; folia caulina *latiuscule* haud *subulate acuminata*, *vix falcata*; theca minor.

*Neckera curvirostris* Schwägr. Suppl. III. I. 2. t. 230.

*Patria.* Nepal.

Partibus plurimis cum *H. Molkenboeriano* posterius detecto et descripto convenit, ut species haecce ulterior varietas *H. neckeracei* habenda sit, si *H. neckeraceum* monoicum inventum esset.

**187. *H. circinale*** Hook. (Musc. Ex. t. 107.); longissime repens flexuosum, ramis numerosis horizontalibus brevibus gracilibus lutescenti-viridibus vix semiuncialibus subsimplicissimis dense et eleganter pinnatum; folia caulina secunda anguste lanceolata longe subulata falcata, inferne concava, superne plana, apice subserrata, cellulis pallidis subconflatis, basilaribus et alaribus *vesiculariformibus* aurantiacis; perich. erecta magis serrata; theca in ped. *brevi* vix unciali erecto flexuoso laevi rufo-fusco *cernua subgloboso-ovalis parvula*, operculo conico brevi; perist. minutum, dentibus internis flavidis imperforatis, ciliis 1 — 2 aequilongis tenuissimis.

*H. (Stereodon) circinale* Brid. II. p. 621.

*Patria.* In arboribus in plaga occidentali Americae meridionalis: **Menzies 1793.** E Chile habuit **Hampe.**



Ramus ic. *Hookerianae*, sub n. 2 delineatus, alius plantae videtur. Ab *H. imponente* haud dissimili vestigiis laudatis jam differt.

Species incertae sedis.

188. **H. leucotrichum** Tayl. (Lond. Journ. of bot. 1848. p. 196.); caulis longissimus ultrapedalis prostratus, ramis brevibus densis patentibus complanatis incrassatis, apice arcte convolutis, *dense pinnatus veluti pectinatus, apice simplici elongato remotifolio; rami juniores foliis densis apicem perichaetia brunnea veluti referentem sistentibus*; folia lucida imbricata, caulina rara appressa, ramea erecto-patentia, siccitate plicata, *rotundato-oblonga elongate apiculata pilifera, pilo subdenticulato, concavissima, mediotenus tenuinervia.* †.

*Patria.* Monte Pichincha: W. Jameson Febr. 1847. sterile legit.

*H. palustri* affine appellatur. Species distinctissima characteribus explicatis videtur.

189. **H. drepanophyllum** C. Müll.; caulis procumbens ramosus, ramis pinnatis diffusis; folia arcte imbricata ovato-acuminata concava falcato-secunda integerima enervia; perich. parva subulata recta; theca in ped. capillari unciali erecta clavato-cylindracea ferruginea nitida. †.

*Leskea uncinata* Brid. II. p. 323. — *Hookeria uncinata* Sm. in Trans. of the Linn. Soc. Lond. IX. p. 281. t. 33. f. 4.

*Patria.* Prom. b. spei: Menzies.

Statura *H. cupressiformis*.

190. **H. Sandwicense** Hook. et Arn. (in Bot. of Cap. Beechey's Voy. 1841. p. 109.); rami pinnati; folia disticha tenera nitida ovato-lanceolata acuminata, falcato-secunda, concava, *undique serrulata, nervo brevissimo obscuro*; theca breviter ovata cernua, calyptra juniore apice pilosa. †.

*Patria.* Insulae Sandwich: Lay et Collie in exped. annorum 1825 — 1828.

Ex animadv. auctorum *H. eleganti* haud dissimile, et *H. circinale* magis spectans, sed ob cellulas alares nobis ignotas incertae sedis, foliis uninervibus autem descriptis facile discernibile.

191. **H. multiflorum** Schw. (Suppl. I. II. p. 202.); caulis debilis biuncialis procumbens subdivisus; folia bifariam imbricata subsecunda patula ovato-lanceolata longe acuminata enervia pallide viridia; flores masculi copiosissimi. †.

*Leskea multiflora* Brid. II. p. 291.

*Patria.* Insula Bourbonis, ad terram.

### Species incerta.

1. **Neckera incurvata** Hsch. (Fl. Bras. I. p. 53.); caulis repens complanatus, apice radicans, foliosus rubellus, interdum subpinnatim ramosus; folia caulina subdisticha homomalla erecto-patentia, late oblongo-ovata subobliqua acuta, apice serrulata, concava, luteo-viridia, nervis obsoletis, cellulis longissime et angustissime linearibus, basilaribus brevioribus laxioribus; perich. ext. latissime ovata acuminata integerrima, basi concava, apice recurvata, pellucida, interiora sensim angustiora longius acuminata, intima 5—6 oblongo-lanceolata, basi vaginata, longissime acuminata, laxius reticulata; theca in ped. erecto subunciali pallide luteo laevi parum flexuoso erecta magna subcylindrica, ore angustato fusco; perist. d. ext. lanceolato-subulati, margine inaequali, nodosi trabeculati perpendiculari-exarati ferruginei, interni parum breviores, e basi latiore lineari-subulati, angustissime pertusi purpureo-ferruginei. †.

*Patria.* Brasilia: Pohl.

## II. *Folia multifariam imbricata.*

Sectio IV. **Mallacodium.** Caulis dichotome vel pinnatim divisus, decumbens vel assurgens, *mollis*; folia *elongate pellucide areolata, nunquam papillosa et statu scarioso ipso mollia.*

Subsectio I. **Drepanocladus.** *Caules ramique uncinati, folia distincte falcata uncinata, elongate lineari-areolata, laevia, uninervia.*

**192. H. riparium** L. (Sp. Pl. p. 1595.); *dioicum; cespites laxissime intertexti molles latissimi virides v. lutescentes; caulis longissime repens, ramis longiusculis flexuosis flaccidissimis laxissime foliosis pinnatim divisus; folia caulina remote disposita patentissima, saepius veluti bifariam imbricata, vel subsecunda, e basi ovata elongate lanceolato-acuminata stricta v. plus minus falcata, integerrima, carinato-concava, margine erecto, nervo tenui ultramedio, cellulis angustis elongatis e lutescente pellucidis, alaribus submultis laxe quadratis pellucidis parum impressis, ad alas decurrentes dispositis; perich. appressa stricta breviora, anguste lanceolata, profunde concava, pellucidius et laxius reticulata, validius nervosa; theca in ped. mediocri rubente laevi inclinata, plus minus cylindraceo-oblonga et arcuata, fuscescens, annulata, operc. conico brevissimo acuto; perist. d. ext. lutescentes, apice subserrulati, int. flavi angusti perforati laeves, ciliis brevioribus ternis albis laevibus.*

Brid. II. p. 348. — Hdw. Musc. Fr. IV. p. 7. t. 3. — *H. Kneifianum* Schimp. in litteris! — *H. hornum* Web. Spic. Goett. p. 44? — *H. palustre nigrescens* etc. Vill. Pl. Dauph. III. p. 917? et *H. palustre lutescens* etc. p. 918? — *H. Siphon* P. B. Prodr. p. 70 et Brid. II. p. 391! vel *H. laxifolium* Brid. Sp. Musc. II. p. 94. — *H. flexipes* Brid. II. p. 419! — *H. oligophyllum* Brid. Musc. Rec. II. II. p. 181. — *H. riparium*  $\gamma$ . *oligophyllum* Brid. II. p. 414. — *H. longifolium* Schultz. Fl. Starg. p. 335. — *H. riparium*  $\delta$ . *longifolium* Brid. II. p. 414. — *H. trichopodium* Schultz. Fl. Starg. p. 324. *H. riparium*  $\epsilon$ . *trichopodium* Brid. II. p. 415. — *H. riparium*  $\zeta$ . *homomallum* Brid. II. p. 415. — *H. riparium*  $\eta$ . *protense* Brid. II. p. 415. — *H. pallidum* Stark. in Brid. II. p. 414 sub *H. riparium*  $\beta$ . *pallido*. Sub nom. *H. pallidi* ab auctore Starke *H. riparium* sec. Hb. Bridel. et alia Hypna sec. Hb. alia edita sunt. — *Fissidens Weberi* Brid. Musc. Rec. II. I. p. 146. — *Skitophyllum Weberi* Lapyt. Journ. Bot. Desv. V. p. 62. — *H. aquaticum* flagellis et teretibus et pinnatis. Dill. Musc. p. 308. t. 40. f. 44. B. C. D.

*Patria.* Per totam Europam et Americam septentrionalem, ad ripas aquarum locisque aliis humidis, ligno saxisque adhaerens v. terram habitans. — *Vere.*

Varietates enumerare omnes, maxime inutile esset; nam caulis e forma typica falcatifolia densius imbricata ad formam tenerrimam laxissime patentifoliam subdistinctam transit. Notis cursive impressis a congeneribus sectionis suae facile distinguitur. Theca quoque variat e forma cylindrica arcuata, florem *Aristolochiae Siphonis* valde aemulante, usque ad formam turgide cernuo-oblongam.

193. *H. uncinatum* Hdw. (Musc. Fr. IV. p. 65. t. 25.); *monoicum*; cespites latissimi mollusci prostrati, e viridi lutescentes v. pallescentes; caulis decumbens vage ramosus; rami prostrati tenues flexuosi elongati *apice valde uncinati*, ramulis tenuibus apice uncinatis laxè pinuatim dispositis; folia caulina maxime falcato-secunda, e basi ovata in acumen longum *valde circinnato-falcatum* sensim attenuata, *pluries profunde plicata*, complicate concava, margine *convexo revoluta* vix conspicue denticulato, nervo tenui canaliculato in acumen evanido, cellulis *angustissimis linearibus virescentibus* elongatis, alaribus paucissimis vesiculaeformibus fugacibus, tenerrime membranaceis, plerumque hyalinis; perich. strictissima convolutacea *anguste longe lanceolato-vaginantia plicata* pallida subdenticulata, elongate laxius pellucide reticulata, nervo latiore canaliculato; theca in ped. longo purpureo laevi subvalido flexuoso suberecta, *longe cylindracea arcuata*, macrostoma, sicca ore valde constricta, aurantiaca, annulata, operc. conico brevi apiculato; perist. d. ext. robusti ferrugineo-lutei, int. flavi vix hiantes, laeves, ciliis 2 - 3 longis capillaribus albis subappendiculate nodosis laevibus.

*H. Stereodon uncinatus* Brid. II. p. 629. et var. *bicolor* p. 631 vel *H. bicolor* Fröhl. in Hb. Bridelii. — *H. contiguum* Nees ab Es. in Hüben. Musc. Germ. p. 676! — *Leskea Deinbollii* Sw., momento Hartm. Sk. Fl. Ed. 5. p. 332 ad *H. aduncum* pertinens, e spec. Hübener. in Finmarkia collectis, huc revocanda est.

*Patria.* Ad saxa et ligna putrida locis umbrosis v. humidis zonae montosae editioris usque ad alpinam per totam Europam, Americam et Asiam septentrionalem, us-

que ad regiones arcticas et in antarcticis. — *Per totum annum.*

Ab *H. fluitante* proximo characteribus laudatis distat.

194. **H. fluitans** L. (Fl. Suec. p. 1074.); *dioicum!* *H. uncinato* simillimum, sed ramis foliisque multo minus falcatis; folia caulina falcata, *haud circinnata, estriata, e cellulis longioribus laxioribus pellucidis areolata*; perich. *latissime vaginantia, estriata, acumine brevi* stricto terminata, laxè reticulata, enervia v. obsoletinervia; theca *subpyriformi-oblonga turgida horizontalis*; caetera *H. uncinati*.

Hdw. Musc. Fr. IV. p. 94. t. 36. — *H. Stereodon fluitans* Brid. II. p. 626 et parte maxima quoque varietates sequentes. — *H. erectum*, vel *fluitans*, foliis oblongis angustis peracutis. Dill. Musc. p. 299. t. 38. — *Fontinalis fluitans* Lam. Fl. Franç. I. p. 64.

*Patria.* In paludosis atque turfosis praesertim planitiei ad terram vel *fluitans* per totam Europam et Americam septentrionalem, rarius tamen fructificans. — *Aestate.*

195. **H. aduncum** L. (Sp. Pl. p. 1592.); *monoicum!* *H. fluitanti* simillimum, sed folia e basi angusta, inde ovata et in acumen falcatum attenuata, concava, estriata, vix denticulata, nervo subobsoleto, cellulis *angustis pellucidis*; perich. estriata, interdum obtusata, acumine terminata et ante acumen subsinuato-emarginata; caetera *H. fluitantis*.

Hdw. Musc. Fr. IV. p. 62. t. 24. — *H. Stereodon aduncus* Brid. II. p. 623. — *H. longisetum* Schl. Crypt. Helv. Exs. Cent. IV. No. 33! *H. stereodon aduncus*  $\delta$ . *longipes* Brid. II. p. 625. — *H. flavescens* Schl. l. c. No. 34 fide Bridelii. — *Neckera adunca* Willd. Prodr. Fl. Berol. No. 937. — *Hypnum palustre erectum* summitatibus aduncis. Dill. Musc. p. 292. t. 37. f. 26.

*Patria.* Per totam Europam, locis turfosis praesertim planitiei sylvarumque montosarum. — *Aestate.*

Ab *H. fluitante* vix, nisi inflorescentia monoica, differt.

196. **H. revolvens** Sw. (Musc. Suec. p. 38. t. 7. f. 14!); *monoicum*; caulis elongatus, foliis *densis maxime*

*aequaliter et eleganter circinnato-falcatis ubique aequalis robustus*, ramis inaequaliter pinnatim dispositis subdichotomis *plerumque purpurascens*; folia caulina saepius *obsoletinervia* *H. adunci*; perich. *plicata* *H. uncinati*; theca *H. adunci*.

*H. Stereodon aduncus*  $\epsilon$ . *revolvens* Brid. II. p. 625. — *H. badii* Hartm. Sk. Fl. Ed. 5. p. 332; e spec. auctoris forma foliis e basi lata brevissime falcatis, pulcherrime purpureis, angustissime areolatis. — *H. ambiguum* Schrad.

*Patria.* Locis paludosis zonae alpinae per totam Europam, Americam, et in regionibus arcticis atque antarcticis.

Ab *H. adunco* notis cursive impressis procul dubio differt; ab *H. uncinato* foliis caulinis estriatis facile distinguitur.

197. **H. paradoxum** Hook. et Wils. (Lond. Journ. of bot. 1844. p. 554.); *monoicum*; *H. uncinato* simillimum; folia e basi latiuscule ovata minus circinnate falcata, profunde plicata, *distincte denticulata*, margine convexo, nervo subdimidiato vel longiore, cellulis angustis pellucidioribus, alaribus paucis *quadratis minutis* pellucidis; perich. e basi *late ovata tenerrime membranacea estriata* elongate pellucide reticulata *enervi in acumen tenue subito fere producta, dentata*; theca in ped. purpureo breviusculo *ubique tuberculoso horizontalis oblongo-ovalis*; perist. d. ext. ferruginei, int. flavi hiantes, ciliis singulis interjectis.

Cum ic. in Fl. Antart. II. p. 419. t. 155. f. 2.

*Patria.* Insula Eremitae ad Cap. Horn, ad rup. madidas et rad. arborum, rarius: J. D. Hooker.

Ab *H. uncinato*, *adunco* et *fluitante*, proximis congeneribus, pedunculo scabro primo aspectu pulcherrime distinguitur. Operc. ignotum.

#### Species incerta.

1. **H. Freuchenianum** Hsch. (in Regensb. Flora 1825. VIII. I. p. 78.); *ascendens*, folia secundo-falcata

ovato-acuminata, enervia; theca obovata subapophysata cernua, operculo conico. †.

*Patria.* Islandia: Freuchen.

Subsectio II. **Aptychus.** Caulis vage ramosus, ramis ascendentibus *confertioribus*, folia concava, erecto-patentia, plus minus secunda, 1—2-nervia, laevia, *estriata*, vel ob marginem revolutum *utrinque semel plicata*.

Ab *Isothecio* characteribus expositis distinguitur.

A. *Folia binervia vel enervia.*

1. *Cellulae alares vesiculaeformes.*

a. *Theca erecta.*

198. **II. Kegelianum** C. Müll.; *monoicum*; cespites plani lati, ramis *utrinque valde compressis uncinatis, valde homomallophyllis, ramulosis*, lutescentibus v. viridibus, folia caulina *maxime secunda, brevia late ovata v. oblongo-ovata breviter acuminata, margine valde reflexo, cellulis ellipticis brevibus veluti incrassatis*, alaribus inferioribus *parvis indistincte vesiculaeformibus*; theca in ped. longiusculo erecta *anguste longiuscule cylindracea subarcuata*, sicca ore coarctata, exannulata, operc. conico longe oblique aciculari; perist. d. ext. *breves tenues plani brevissime cristati* lutei.

*Leskea Kegelianum* C. Müll. Linn. XXI. p. 198.

$\beta$ . *tenue*; partibus omnibus gracilioribus, ramis viridibus. *Leskea Dominicensis* Mont. in litt. — *L. cespitosa* Brid. II. p. 289 ex parte. — *L. subpinnata* ej. II. p. 287!

*Patria.* Surinam, ad truncos arborum, in radicibus prope Paramáribó et in sylvis opacis pr. Mariepaston ad flum. Saramacca, e mensi Majo usque ad Augustum fructib. maturis copiose legit Kegel 1844. Ex insula Trinidad Antillarum minorum misit indefessus scrutator Crüger, qui locis et mensibus iisdem 1847 copiose legit. Var.  $\beta$ . ibidem et in Brasilia, pr. Rio Janeiro: Beske, in insula St. Catharina, in viis cavis ad lapides prope Destero m. Martii et Maji: Pabst 1847; in Hispaniola et Porto Rico: Bertero.

Notis cursive impressis ab *H. cespitoso* prorsus differt.

**199. H. Hampeanum** C. Müll.; *monoicum*; cespites pulvinulati laxe cohaerentes sordide virides v. lutescentes subdecumbentes; caulis repens homomallophyllus appressus, ramis *humilibus teretibus subtenuibus* circinnato-curvatis subramulosis; folia caulina *secunda dense conferta erecta minora*, incrassate elliptico-areolata; perich. *anguste lanceolato-acuminata* recta; theca in ped. *perbrevi erecta minute oblonga, haud arcuata*, ore aequali minori siccitate coarctato, annulo nullo, operc. cupulato longe oblique subulato; perist. minus, ciliis internis *vix ullis rudimentariis*.

*Leskea circinalis* Hmp. Ic. Musc. t. 5. — *Neckera straminea* Hsch. Fl. Bras. I. p. 54! Nomina duo trivialia *Hypnis* aliis duobus jam imposita sunt.

*Patria.* Brasilia, Villa Rica in montosis glareosis: de Martius, Rio Janeiro: Beske.

Ab *H. Kegeliano* proximo characteribus notatis certe differt.

**200. H. microcarpum** C. Müll.; *monoicum*; late cespitosum arcte adhaerens, *longe repens vage ramosum*, ramis *brevissimis valde homomallophyllis velutino-viridibus v. lutescentibus curvatis*; folia caulina laxe imbricata patula, *anguste ovato-lanceolato-acuminata*, profunde concava, integerrima, *obsoletinervia, subsymmetrica*, margine erecto v. reflexo, cellulis *angustissime linearibus pallide viridibus, basi flavidis*, alaribus *dimorphis, superioribus paucis laxiuscule quadratis pellucidis, intus granulosis, inferioribus utrinque binis v. ternis vesiculiformibus parvis flavidis*; perich. erecta majora, margine magis reflexa, basi laxe et flavide reticulata, nervis binis obsoletis brevibus flavidis; theca in ped. brevi purpurascente laevi *erecta parum arcuata minute ovalis brevicolla, ore aequali constricta, leptodermis reticulata, exannulata, olivacea, dein fuscidula*, operc. conico longe oblique subulato pallido; perist. d. ext. *planissimi leptodermes albidis breves, int. vix breviores hyalini subsolidi, ciliis singulis brevibus*.



*Leskea microcarpa* Brid. II. p. 289. — *L. adnata* Rich. Fl. Amer. Bor. Mich. II. p. 314. — Schw. Suppl. I. II. p. 167. t. 84! — *L. cespitosa* var. *adunca* Hmp. Linn. XIII. p. 47! — *Hypnum crassiusculum* Hook. et Wils. in Drumm. Musc. Amer. No. 107. — *H. minimum* P. B. Prodr. p. 66! — *H. gracilicarpum* Bruch. mst.

*Patria.* America septentrionalis, in Carolina inferiore (unde primus habuit Richard) ad corticem arborum praesertim *Quercus aquaticae* circa Carlestown vulgatissimum: Beyrich, Sullivant; in Obione et Ludoviciana: Sullivant; e Florida habuit Torrey; in insula Terre Neuve legit La Pylaie, e Carolina meridionali formam robustiorem longiorem determinavit novam speciem Bruch.

b. *Theca inclinata.*

201. *H. demissum* De Not. (Syllab. Musc. 1838. p. 57.); *monoicum*; *H. microcarpo* simillimum, sed *rami magis teretes, haud compresso-homomallophylli, minus velutino-virides sed lutescentes splendentes vel rufescentes aurei*; folia caulina minus homomalla; perich. caulinis angustiora *subdenticulata basi flaviora*; theca collo carens *subinclinata*; perist. d. ext. *crassiores intus valde cristati, int. flavidi*, ciliis singulis albidis brevibus.

*H. Schimperi* Bruch in litteris! — *H. demissum* Wils. Engl. Fl. V. p. 9. et Engl. Bot. t. 2740?

*Patria.* Italia, ad rupes in valle Intrasca ad Verbanum: De Notaris. In Vogeso inferiore: W. P. Schimper 1838 hyeme. Hibernia, ad lapides in sylvis prope Cromaglowm circa Killarney: W. Wilson et pone Keumare.

202. *H. Carolinianum* C. Müll.; *monoicum*; *longe prostratum, ramis longiusculis flaccidis compressis sordide lutescentibus*; folia caulina anguste lanceolato-acuminata cymbiformi-concava, distincte secunda, *marginibus ubique distincte revolutis*; perich. e basi vaginante longiuscule acuminata integerrima; theca in ped. brevi rubro torto tenero laevi inclinata minute obovata, ore coarctata; perist. minuti d. ext. flavidi, intus valde cristati subcar-

nosuli, int. angustissimi solidi flavidi, ciliis singulis aequilongis albidis interjectis.

*H. demissum* Sulliv. Musc. Allegh. No. 48.

*Patria.* In rupibus declivibus irroratis montis Grandfather Carolinae superioris: Sullivant.

Ab *H. demisso* characteribus expositis certe differt. Theca senectute nutans.

**203. *H. Marylandicum*** C. Müll.; *monoicum*; longe lateque prostratum *viride* compressum flaccidum *robustius latius*; *rami apice subcuspidati*; folia caulina laxè imbricata *vix secunda, late ovato-acuminata*, integerrima, margine *erecto*, elongate lineari-areolata, pallida, cellulis alaribus majusculis hyalinis v. flavidis; perich. anguste lanceolato-acuminata profunde concava, margine reflexa; theca in ped. *elongato* flexuoso inclinata *multo robustior oblonga subcernua*, ore coarctata, perist. *H. Caroliniani*.

*H. demissum* var. Sulliv. Musc. Allegh. No. 49.

*Patria.* In summo Marylandiae jugo Backbone dicto, ad saxa madida: Sullivant.

Ab *H. Caroliniano* notis editis certe refugit.

**204. *H. maritimum*** C. Müll.; *monoicum*; longe et late prostratum *rigidiusculum* lutescens *subrobustum* elongatum sed breviter ramosum; folia caulina dense imbricata, *parum secunda, e basi longius angustiore late cochleariformi-ovata* subacuminata, profunde concava, margine reflexo, nervis *subdistinctis* binis flaviusculis, cellulis *grosse ellipticis*; perich. *vaginanti-ovata* longius acuminata; theca in ped. mediocri subvalido rutilante inclinata *anguste cylindracea*, operc. longe subulato obliquo.

*Leskea maritima* Hook. Musc. Exot. t. 166. — Brid. II. p. 294.

*Patria.* Prom. b. spei, in fruticetis arenosis sinus Plattenberg: Burchell.

Ab *H. Caroliniano* simili characteribus expositis distat. Fructum tantum immaturum habemus.

**205. *H. brachycarpum*** Hmp. (Ic. Musc. tab. 11.); *monoicum*; *H. microcarpo* simillimum; folia caulina an-

gustissime v. anguste lanceolato-acuminata, cellulis basi saepe minus flavidis et alaribus magis granulosis; theca saepe robustius ovalis, erecta v. inclinata; perist. d. ext. lanceolato-subulati *robusti carnosuli intus valde cristati*.

*Patria.* Prom. b. spei, in sylvis primaevis Krakammae distr. Uitenhagen: Gottsche misit; in latere montis tabularis nemorali m. Augusti legit Mundt; in locis non designatis legit Pappé. Vulgare videtur.

206. **H. macrorrhynchum** Hsch. (Fl. Bras. I. p. 81.); *monoicum?* caulis repens gracilis vage ramosus, ramis subpinnatim ramulosis, ramulis ascendentibus pallide viridibus vel luride lutescentibus; folia caulina laxè imbricata subsecunda, oblongo-lanceolata *longius* acuminata, *latiora*, integerrima, enervia (?) angustissime lineari-areolata; perich. ovato-acuminata, interiora lanceolata breviter acuminata, magis magisque angustata, caulinis similia; theca in ped. gracili flexuoso laevi purpurascente *horizontalis*, minute *obconica* parum curvata, operc. hemisphaerico longissime rostellato longiori; perist. d. ext. lanceolato-subulati lutei, intus cristati, int. lutei subulati solidi, ciliis solitariis paullo brevioribus capillaribus hyalinis. †.

*Patria.* Brasilia, ad corticem arborum prope Rio Janeiro: Sellow et Merkel.

Ex animadv. auctoris ab *H. microcarpo* nob. (*Leskeae adnatae* Schw.) notis laudatis paucis distare dicitur.

207. **H. humile** Harv. (Hook. Ic. Pl. Rar. t. 23. f. 9.); *monoicum?* humile laxè cespitosum intertextum *sordide lutescens*, ramis *brevibus parum curvatis*, ramulis *brevissimis creberrimis*, igitur *subglomerate ramulosis* pinnulatum; folia caulina homomalla anguste lanceolato-acuminata substricta integerrima, concava saepe implana, margine convexo-reflexo, nervis obsoletis, cellulis breviusculis angustis pallide lutescentibus, basi flavidis, alaribus superioribus *vix ullis*, inferioribus utrobique ternis vesiculaeformibus majusculis aureis; perich. late ovato-vaginantia *longius* acuminata, acumine subflexuoso sub-

denticulato; theca in ped. breviusculo purpureo laevi *horizontalis* oblonga exannulata badia; perist. d. ext. *car-nosuli*, *intus valde cristati*, *breviusculi robusti* lutei, int. aequilongi compresso - carinati angusti vix pertusi flavidi, ciliis singulis brevioribus.

*Hypnum humile* Harvey c. diagnosi in Lond. Journ. of bot. 1840. II. p. 19.

*Patria.* Nepal: Wallich.

Ab *H. microcarpo* notis laudatis longe differt. Operculum ignotum.

208. **H. subhumile** C. Müll.; *monoicum*; humile laxe cespitosum intertextum *pallide lutescens nitidulum*, ramis brevibus *distincte uncinatis subsimplicibus*; folia caulina longius acuminata, cellulis alaribus *superioribus crebrioribus paucis laxiuscule* quadratis pellucidis; perich. *anguste lanceolato-acuminata subintegerrima*; theca *parum inclinata*, ovalis ore minori siccitate constricto.

*Hypnum humile* Mont. in schedulis, haud Harvey!

*Patria.* Montes Neelgherienses: Perrottet.

Ab *H. humili* simillimo characteribus laudatis prorsus diversum.

209. **H. cespitosum** Sw. (Prodr. Fl. Ind. Occ. III. p. 1807.); *monoicum*; repens, ramis erectis altiusculis *laxiusculis, subsimplicibus seu basi rarius divisis, plerumque obtusis robustis ubique densifoliis teretiusculis splendenti-lutescentibus apice pallidioribus*, flexuosis, *haud uncinatis, curvatis*; folia caulina *ubique inserta parum homomalla*, e basi brevi angustata *oblongo-lanceolata acuminata angustiuscula sublonga*, profunde concava, *subintegerrima*, margine ubique erecto v. vix reflexo, nervis obsoletis, cellulis *angustissime linearibus, haud incrassatis, longiusculis pallidis*, basi flavidis, alaribus superioribus vix ullis quadratis pellucidis, inferioribus utrobique ternis flavidis *majusculis distincte vesiculaefor-mibus*; perich. *latiora vaginantia longius acuminata vix denticulata*; theca in ped. purpurascente laevi *longiusculo parum inclinata minute et breviter ovata urceolata ma-*

*crostoma, sicca ore coarctata*, operc. conico oblique subulato; perist. d. ext. rufescenti-flavi, humore valde incurvi, intus valde cristati, int. aequilongi flavidi solidi v. pertusi, ciliis singulis albidis brevioribus.

*Hypnum Galipense* C. Müll. Bot. Zeit. 1848. p. 780. — *H. Tovaricense* C. Müll. l. c. forma laxifolia. — *H. obliquifolium* C. Müll. Bot. Zeit. 1845. p. 110. — *H. leptochaeton?* Wils. Lond. Journ. of bot. 1844. — *Hypnum subsecundum* Arn. Disp. d. M. p. 62. — *H. (Stereodon) pallidisetum* Brid. II. p. 591! seu *H. densifolium* Spreng. l. c. — *Leskea cespitosa* Hdw. Sp. Musc. p. 233. t. 49. — Brid. II. p. 288 ex parte. — *L. cespitosa*  $\beta$ . *subsquarrosa* Brid. II. p. 289 vera species.

*Patria.* Ad radices arborum in montibus Hispaniolae: Swartz; in Porto Rico et Guadeloupe: Bertero. Venezuela, prov. Caracas, prope Galipan, alt. 4000, 1845 m. Januarii leg. Funck et Schlim in Coll. Linden. No. 345 et 357; Cumbre de Caracas, alt. 3000': Wagner 1848 legit; prope coloniam Tovar Germanicam prov. Caracas, alt. 5500', in lapidibus m. Januar. leg. Funck et Schlim, in Coll. Linden. No. 470. In insula Antillarum Trinidad prope St. Cruz formam humiliorem leg. 1. Aug. 1847 Crüger. Ad lapides sylvarum insulae St. Catharinae Brasiliensis, m. Junii et Julii 1847: Pabst; Serra dos Orgaôs: Gardner No. 112.

Vera species in herbariis raro occurrit! Theca saepius oblongo-coarctata observatur. Ex areolatione foliorum, eorum forma anguste lanceolata longius acuminata profunde concava, colore pallido et ramis densifoliis vix homomallophyllis splendenti-pallescenti-lutescentibus facile cognoscitur.

210. **H. Loxense** Hook. (in Kunth. Synops. Pl. Aeq. I. p. 62.); *monoicum*; laxe cespitosum, ramis altiusculis erectis parce brevissime ramulosis sordide lutescentibus v. viridibus densifoliis robustiuscule subteretibus flexuosis vix curvatis et parum homomallophyllis; folia caulina *robusta majuscula late ovato-acuminata profunde et valde irregulariter complicate concava, maxime implana, margine valde revoluta integerrimo, nervis brevibus distinctis,*

cellulis brevibus ampliusculis pellucidis firmis, superne grossiuscule ellipticis, basi flavidis, alaribus super. vix ullis laxe quadratis, infer. 4—5 parvulis indistincte vesiculaeformibus flavidis; perich. anguste lanceolato-acuminata regulariter cymbiformi-concava, basi laxe reticulata flavida subnervosa, integerrima; theca in ped. mediocri purpureo laevi inclinata gibboso-oblonga brevis superne subarcuata, ore minori, annulo nullo, operc. cupulato longe oblique subulato; perist. *H. cespitosi*, sed dentes ext. minus cristati.

*Hypnum* (*Stereodon*) *Loxensis* Brid. II. p. 590.

*β. rivulare*; viridissimum laxissime imbricatum, subflaccidum, folia subrotundate late ovata, magis regulariter cochleariformi-concava, nervis sublatis elongatis; perich. caulinis parum angustiora. *Hypnum lithophilum* Hsch. Fl. Bras. I. p. 84.

*Patria.* In sylvis Cinchonae, regione temperata, juxta Loxam et Gonzanamam, Peruviae alt. 1080 hex. primi leg. Humboldt et Bonpland; Brasilia, Serra dos Orgaôs: Gardner, praeterea in regionibus aliis hujusce terra haud rarum videtur. Var. *β.* in Brasilia, in lapidibus rivulorum pr. Novo-Friburgum: Beyrich, in Serra dos Orgaôs, locis similibus: Sellow, in iisdem locis prov. St. Catharinae: Blumenau 1848, in insula St. Catharinae Brasiliae ad ripas flum. Itajahi, Sept. Oct. 1846: Pabst.

Ab *H. cespitoso* proximo characteribus laudatis differt.

211. *H. inconspicuum* Hsch. (Fl. Bras. I. p. 86.); *monoicum*; *H. Loxensi* simile, sed folia caulina late ovato-acuminata regularia, haud implana, margine erecto v. parum convexo, haud valde reflexo, planiuscula, cellulis angustioribus et longioribus tenerioribus, alaribus superioribus minutis; perich. vaginantia, anguste lanceolato-acuminata, intima longissima pellucida elongate anguste reticulata enervia; theca in ped. mediocri suberecta v. cernua oblonga, peristomio *H. Loxensis*.

*Patria.* Brasilia, ubi locis non designatis legit Martius.

Ab *H. cespitoso* foliis latioribus, e cellulis robustioribus magis ellipticis, haud angustissimis elongatis, compositis planiusculis differt. Fructum non vidimus.

**212. *H. sphaerotheca* C. Müll.;** *monoicum*; late laxe cespitosum, longe repens foliosum, ramis assurgentibus erectis v. curvulis turgidis brevibus simplicibus e viridi lutescentibus, inferne plerumque nigricantibus vix homomallophyllis; folia caulina laxe conferta, humore patula, e basi angustâ late oblongo-ovata obtusa brevissime acuminata *semper profunde cochleariformi-concava regularia*, margine integerrimo late revoluta, nervis brevibus, cellulis brevibus ampliusculis pellucidis, utriculo primordiali tenuissimo instructis, v. ellipticis, lutescentibus v. subvirentibus, basi flavidulis, alaribus et foliis perichaetialibus *H. Loxensis*; theca in ped. breviusculo purpureo laevi valido parum inclinata, *breviter turgide globosa*, ore aequali siccitate coarctata, firma, exannulata, operculo et peristom. *H. Loxensis*.

*Hypnum lithophilum* Hsch. in Musc. a Mundt. et Maire lectis, non Fl. Bras.!

*Patria.* Prom. b. spei: Pappé, Zeyher; ad cataractam m. tabularis et inter saxa ad cataractam m. diaboli orientalis, 12. Sept. 1824: Ecklon; ad Hangklipp primi leg. Mundt et Maire 1821.

Ab *H. Loxensi* var. *rivulari* simillimo notis cursive impressis prorsus distinctum et *Hypno murali* habitu simile.

c. *Theca demum nutans.*

**213. *H. flaccidifolium* C. Müll.;** *monoicum*; repens laxe cespitosum, erectum, ramis *simplicibus laxissime foliosis flaccidis erectis v. vix curvulis* sordide lutescentibus; folia caulina *laxe patula indistincte secunda, elongate inaequaliter latiuscule lanceolato-acuminata planiuscula* implana, margine *erecto*, nervis et cellulis *H. cespitosi*; perich. caulinis longiora et caviora; theca in ped.

breviusculo purpureo laevi *horizontalis* v. *nutans oblonga*, ore constricta, exannulata, opere. oblique subulato; perist. *H. cespitosi*.

*Patria.* Insula Trinidad: Crüger 1847 legit.

Ab *H. cespitoso* theca horizontali oblonga longiore robustiore, foliis planiusculis distinctius secundis laxissime imbricatis, ramis flaccidis, ab *H. Kegeliano* v. *tenui* simillimo notis cursive impressis, areolatione folii et peristomio differt.

**214. *H. saproxylophilum* C. Müll.; *dioicum?*** caulis repens prostratus *radicans homomallophyllus*, ramis *humillimis patentifoliis glauco-viridibus simplicibus*; folia caulina *laxe patentia, longiuscule lanceolato-acuminata angusta stricta subintegerrima, cymbiformi-concava*, margine erecto rarius parum involuto, nervis obsoletis v. *brevibus*, cellulis *longiusculis pellucidis viridibus sublaxis, mollibus*, basi flavidis, alaribus majusculis turgidis vesiculaeformibus flavidis v. hyalinis; perich. inferne parum latiora subvaginantia longius acuminata et denticulata; theca in ped. *brevi* laevi purpurascete apice arcuato *horizontalis* v. *nutans minute obovalis rugulosa* badia, exannulata, opere. conico longe aciculari recto aurantiaco; perist. d. ext. breves lutei, linea media valde exarati, latere valde cristati, int. flavidi pertusi angustissimi, ciliis singulis hyalinis brevioribus.

*Hypnum microcarpum?* Dub. (non Hook. in Lond. Journ. of bot. 1840. II. p. 18.) in Moritzi Syst. Verz. d. Zoll. Pf. p. 131.

*Patria.* Java: Zollinger No. 243. z.

Habitus ob caulem prostrato-radicantem homomallophyllum glaucum brevissime proprius.

2. *Cellulae alares quadratae.*

a. *Theca erecta.*

**215. *H. acuminatum* P. B. (Prodr. p. 60.); *dioicum*;** caulis laxo cespitosus longe repens, ramis erectis humilibus crassiusculis strictis teretibus attenuatis viridibus, apice sericeo-luteis, inferne ferrugineis; folia caulina



sicca et madefacta erecto-imbricata, subsecunda, late ovato-acuminata breviuscula, acumine brevi semel torto, plicis duabus laevibus, nervo ultra medium producto canaliculato viridi, margine late reflexo convexo subdentato, cellulis brevibus mollibus virescentibus, alaribus paucis laxe quadratis, intus valde granulosis obscuris, parum impressis; perich. late ovata, longe crinita, vaginanti-concava, enervia elongate et laxe reticulata, haud plicata; theca in ped. breviusculo valido rutilante laevi erecta cylindraceo-oblonga subcernua, exannulata, opere. conico acuminato obliquo; perist. d. ext. linearilanceolati lutei, int. angustissimi laeves flavi pertusi, ciliis singulis rudimentariis.

*Leskea acuminata* Hdw. Sp. Musc. p. 227. t. 56. f. 1—7. — Brid. II. p. 296. — *Hypnum rupincolum* P. B. Prodr. p. 69. — *Leskea rupicola* Hdw. Sp. Musc. p. 227. t. 54. — Brid. II. p. 302. Forma ramis crassioribus obtusiusculis compactius cespitosa. — *Hypnum setosum* P. B. Prodr. p. 70. — *Leskea setosa* Hdw. Sp. Musc. p. 226. t. 57. — Brid. II. p. 302. Forma gracilis, foliis angustis indistincte biplicatis. — *Leskea Beyrichii* Hmp. Linn. XIII. p. 47 et Ic. Musc. t. 7! Forma gracilis, pedunculis longioribus. — *H. erectum* Drumm. Musc. Amer. No. 224!

*Isothecium bryiforme* Brid. II. p. 365. — *Hypn. bryiforme* Brid. Musc. Rec. II. II. p. 100. — *H. julaceum*, erectum Bryi argentei habitu. Dill. p. 322. t. 41. A. B. D.

*Patria.* Per totam Americam septentrionalem vulgatissimum, ad rupes et arbores in depressioribus. — Mühlenberg primus legit.

Ab *H. sericeo* affini notis expositis distinctissimum.

216. *H. densum* C. Müll.; *dioicum*; laxe cespitosum humile decumbens vage ramosum, ramis assurgentibus firmis julaceo-teretibus tenuibus viridiusculis nitidulis, pluries breviter ramulosis saepe breviter flagelliferis; folia caulina dense appressa, humore squarrulosa erecto-patentia, late ovata, acumine brevi subobliquo, breviter, profunde subcarinate concava subintegerrima, margine ubique erecto, nervis brevibus pallidis tenuibus, cellulis brevibus pellucidis virescentibus, alaribus permultis planis quadratis pellucidis granulosis; perich. an-

gustiora longius acuminata; theca in ped. mediocri rigido stricto laevi purpurascente *erecta leptodermis* exannulata (?) pallida fusca, *cylindraceo-oblonga*, operc. *conico oblique rostellato brevi*; perist. d. ext. pallide fusci, internum: membrana tessellata subopaca fuscescens, indentes lanceolatos solidos fissa, processu exiguo interposito.

*Leskea densa* Hook. in Kunth. Synops. Pl. Aeq. I. p. 61. — Brid. II. p. 299. — Schw. Suppl. III. II. 2. t. 291. — *Hypnum brachycladon* Arnott. Disp. d. M. p. 61.

*Patria.* In regno Mexicano, locis scopulosis inter Pazcuaro et Ario, 1000—1100 hexapodes elevatis: Humboldt et Bonpland.

*Entodonti longiseto* haud dissimile. Peristomium ipsi non vidimus.

**217. H. homomallum** C. Müll.; *dioicum*; cespites decumbentes latiusculos laxè cohaerentes *amoene lutescenti-rufescentes*, aureos sistens, prostratum maxime homomallophyllum, in ramos flexuosos breves curvatos rigidos robustos fissum; folia caulina dense conferta erecto-patula, *e basi obliqua asymmetricâ* latiuscule ovato-acuminata, cochleariformi-concava, integerrima, margine erecto v. reflexo, nervis brevibus flavidis subobsoletis, cellulis breviter prosenchymaticis robustis luteis, basi fuscidulis, alaribus *valde pachydermibus multis quadratis fuscis planiusculis*; perich. longe lanceolato-acuminata stricta angustiora, basi laxius reticulata; theca in ped. breviusculo flexuoso purpurascente laevi erecta parvula, sed robusta et orificio valde coarctato parum arcuata, pachydermis badia, exannulata, operc. depresso-conico oblique subulato aurantiaco; perist. ext. d. lutei, in subulam tenuem producti, int. subaequilongi flavidi subsolidi angusti, ciliis singulis brevibus limpidis.

*Hypnum Drummondii* Tayl. Lond. Journ. of bot. 1846. p. 63. — *Leskea homomalla* Hmp. Ic. Musc. 1844. t. 6. et in Pl. Preiss. No. 2465.

*Patria.* Nova Hollandia, ad corticem *Banksiae Menziesii* pr. oppidum Perth, 19. Aug. 1839: Preiss; ad

Swan River: J. Drummond. In Van Diemen's Land J. D. Hooker et ad King George's Sound Cunningham ex animadv. Wilsoni (l. c.) legisse dicitur.

**218. H. polyanthum** Schreb. (Spic. Fl. Lips. p. 97.); *monoicum*; cespites *lati depressi velutino-virides intertexti molles*; caulis repens, ramis assurgentibus *brevibus teretibus tenuibus parum homomallophyllis subcurvatis*; folia caulina *laxe imbricata sericea, humore plumoso-patula, anguste lanceolata, longe oblique acuminata, subintegerrima, profunde concava, margine inferne reflexo*, nervis *brevibus pallidis saepe obsoletis, cellulis mollibus viridibus longiusculis linearibus, alaribus multis quadratis pellucidis teneris intus granulosis*; perich. *erecta late vaginantia acuminata distincte denticulata tenerius pellucidius reticulata, subplicata*; thecae in ped. *breviusculis purpureis creberrimis tortis laevibus erectae anguste cylindraceo-oblongae v. ellipticae, leptodermes fuscidulae, imperfecte annulatae, operc. conico brevi oblique acuminato concolori*; perist. d. ext. *anguste lanceolato-subulati valde incurvi aurantiaci, latere cristati, int. angusti valde carinati aequilongi lutei rugulosi lineari-pertusi v. secedentes, ciliis singulis rudimentariis.*

*Leskea polyantha* Hdw. Musc. Fr. IV. p. 4. t. 2. — Brid. II. p. 311. — *L. filiformis* Sibth. Fl. Oxon. p. 303? — *L. splendens* Wib. Fl. Werth. p. 340? — *Hypnum filifolium* Linn. Mant. Pl. II. p. 310. et synonymae sequentes species fide Bridel. receptae. — *H. filiforme* Huds. Fl. Angl. ed. I. p. 497. — *H. filiforme* l. c. p. 421. — *H. strigosum* Neck. Meth. Musc. p. 179. — *Hypnum sericeum ramosius et tenuius, capsulis acuminatis.* Dill. Musc. p. 327. t. 42. f. 62.

*β. pallidifolium*; pallida, folia late ovato-acuminata *caviuscula subscariosa, vix mollia, margine erecto, cellulis pallidissimis subconflatis, alaribus paucis minutis, saepe vix granulosis.* *Pylaisaia heteromalla* Br. et Sch. in correct. Musc. Drumm. Amer., in Lond. Journ. of bot. 1843. II. p. 669. — *Hypnum multiflorum* Tayl. in Fl. Hibern. Mackay. II. p. 46. — *H. resupinatum* Tayl. in Spruce Musc. Pyr. Ann. and. Mag. of Nat. Hist. 1849. No. 46.

*Patria.* Per totam Europam, vulgare in arboribus, rarius ad saxa, et in America septentrionali. Var.  $\beta$ . in locis siccioribus. — *Ex auctumno per hyemem usque ad dies vernaes.*

Peristomium a caeteris *Hypnis* minime differt.

**219. H. intricatum** C. Müll.; *monoicum*; *H. polyantho* simillimum, sed ramis plerumque magis incurvis brevioribus; folia caulina densius conferta, *breviter lanceolato-acuminata*, margine *erecto*, nervis brevissimis pallidis, cellulis pallide virentibus brevibus submollibus, alaribus *minute* quadratis chlorophyllosis; perich. nervis longis maxime deplanatis viridibus; perist. d. ext. *brevissime lanceolati*, *latere intus maxime cristati*, igitur *obscuri carnosuli*, interni aequilongi *externis adglutinati*, *facillime in crura ciliaeformia duo rugulosa obscura secedentes*, ciliis singulis rudimentariis.

*Anomodon intricatus* Hmp, Linn. XIII. p. 46. — *Maschalocarpus intricatus* Spr. Syst. Veget. IV. I. p. 159. — *Pterogonium intricatum* Schw. Suppl. I. I. p. 100. — *Pterigynandrum intricatum* Hdw. Sp. Musc. p. 85. t. 18. — Brid. II. p. 179. — *Pterig. appressum* Brid. II. p. 186! — *Hypnum appressum* Brid. Sp. Musc. II. p. 161!

*Patria.* America septentrionalis, a Marylandia usque ad Ludoviciam, arboreum vulgatissimum legit Sullivan; in Pensylvania detexit Mühlenberg.

Cilia rudimentaria perist. interni ob situm pone dentes externos difficillime observanda.

b. *Theca inclinata.*

**220. H. orthothecium** Schw. (Suppl. III. I. 1. tab. 220.); *monoicum*; longe repens appressum, ramis erectis apice incurvis brevibus semuncialibus subsimplicibus densis aequalibus *luteo-viridibus* divisum; folia caulina densiuscule imbricata *valde secunda*, *ovato-lanceolata* profunde concava, plica una alterave brevi instructa, subintegerrima obsoletinervia (?) cellulis elongatis pallide viridibus, alaribus multis planis quadratis pellucidioribus; perich. e basi ovata anguste longius acuminata substricta;

theca in ped. tenui fusco laevi breviusculo *teretiuscula suberecta parum inclinata fusca*; perist. d. ext. robusti latere pallidi, lutei carnosuli, celerrime emollientes, int. aequilongi flavidi solidi, ciliis *binis limpidis nodosis aequilongis*. †.

*Neckera secunda* Hook. mst. ibidem. — *Leskea secunda* Hook. Ic. Pl. Rar. t. 23. f. 1. et Lond. Journ. of bot. 1840. p. 16 foliis ovato-acuminatis binervibus huc pertinere videtur.

*Patria.* Ad ligna putrida Indiae orientalis: Hb. Hooker.

Notis laudatis a congeneribus *H. polyantho* affini-  
busque facile discernibile.

**221. *H. pallescens* P. B.** (Prodr. p. 67.); *monoicum*; caulis longe *repens*, ramis *utrinque pinnatim dispositis, assurgentibus v. prostratis gracilibus teretiusculis subsimplicibus pallide viridibus v. lutescentibus pallidis rectis*, valde homomallophyllis; folia caulina densiuscule conferta, *e basi ovata breviter falcate acuminata, erose subdenticulata concava, margine anguste revoluto*, nervis binis brevibus pallidis, cellulis brevibus angustis virescentibus, basi subflavidis, alaribus multis minute quadratis obscuris intus granulosis; perich. *longe vaginantia, acumine breviusculo terminata, eroso-denticulata, subplicata, obsoletinervia, basi laxe reticulata, pallida*; theca in ped. longiusculo aurantiaco laevi gracili tortili suberecta cernuo-cylindracea, ore coarctata, basi angustata, simpliciter annulata, pallescens, operculo *turgide conico acuminato recto pallidiori*; perist. d. ext. angustiusculi lutei, int. subflavidi perforati vix punctulati, ciliis binis albis sublaevibus.

*Leskea pallescens* Hdw. Sp. Musc. p. 219. t. 55. — *L. hispida* Brid. Sp. Musc. II. p. 79.

*Patria.* In subalpinis et alpinis totius fere Europae, ad terram et corticem arborum.

**222. *H. adnatum* Hdw.** (Sp. Musc. p. 248. t. 64.); *monoicum*; *tenellum pusillum viridissimum haud sericeum*, ramis procumbentibus vagis *brevissimis teretibus*

*vix homomallophyllis, tenuioribus haud curvatis, parum intertextis; folia caulina dense conferta parum secunda, regulariter et breviuscule latiuscule ovato-acuminata integerrima profunde concava, margine basi paulisper reflexo, nervis breviusculis viridibus, cellulis ellipticis viridissimis, alaribus permultis planis quadratis parvis virescentibus granulosis; perich. externa reflexa minora, interna majora e basi latiuscule ovata laxius reticulata subpellucida longius acuminata erecta, crenulata; theca in ped. brevi purpurascete laevi stricto subvalido parum inclinata, oblonga, ore obliquo constricto inaequalis, olivacea, dein badia, exannulata; operc. cupulato obtuso mammillato pallido; perist. d. ext. lutei, int. flavidi aequilongi laeves pertusi, ciliis aequilongis albidis capillaribus subrugulosis singulis.*

*Hypnum Stereodon adnatus* Brid. II. p. 591.

*Patria.* America septentrionalis, ad arborum corticem Pennsylvaniae primus legit Mühlenberg; in republica Massachussets: Torrey. Ad saxa, rarius in arboribus haud infrequens legit Sullivan. Coll. No. 28.

Species pulchella facile distinguenda. Flos masc. turgidus, foliis late ovatis breviter et obtuse acuminatis. Ab *H. polyantho*, parum simili, notis cursive impressis toto coelo differt.

**223. H. ambiguum** Harvey (Ic. Pl. Rar. Hook. tab. 24. f. 4; c. descr. Lond. Journ. of bot. 1840. 2. p. 20.); *monoicum*; caulis repens tenuis pallidus, ramis gracillimis flexuosis breviusculis inaequaliter pinnatus; folia dilute viridia laxiuscule conferta subsecunda parva, anguste ovato-acuminata caviuscula minute serrulata, margine erecto, nervis binis longiusculis, cellulis angustissime linearibus subconflatis virescentibus, alaribus vix ullis; perich. e basi latiuscule vaginante acuminata reflexa; acumine flexuoso tenui, subdenticulata, enervia; theca in ped. elongato rubro laevi horizontalis, minute sphaerica.

*Patria.* Nepal: Wallich.

Notis laudatis facile discernibile.

Species ob cellulas alares ignotas incertae sedis.

**224. H. fuscescens** Hook. et Arn. (in Cap. Beechey's Voy. Bot. 1841. p. 76. t. 19.); *monoicum?* caulis laxissime cespitosus vage ramosus compressiusculus prostratus *brunnescens* dichotome divisus; folia caulina distichacea laxè disposita *subsecunda*, e basi brevissima angustiore amplexante late ovato-acuminata, enervia, laxè reticulata, membranacea *nitida* caviuscula, margine *subundulato* erecto *apice obscure serrulato*; theca in ped. brevi laevi apice valde arcuato maxime nutans parva ovata urceolata, operc. hemisphaerico-mucronato; perist. d. ext. angusti, int. haud perforati, ciliis binis brevibus interjectis. †.

*Patria.* Insulae societatis: Lay et Collie.

Ex icone et descriptione species, notis cursive impressis distincta, huc pertinere videtur.

**225. H. succedaneum** Hook. et Wils. (Fl. Antarct. II. p. 420.); folia laxè imbricata, sicca et humida patula subsquarrosa, late ovata, caviuscula, margine subreflexa, cellulis parallelogrammis; perich. longiora apice subsquarrosa. †.

*Patria.* Brasilia, prov. Rio prope Novo-Friburgum: Martius, inter *H. Loxense*  $\beta$ . *rivulare*.

Cui affine?

**226. H. conterminum** C. Müll.; hermaphroditum; caulis repens fasciculatim ramosus, ramis subsimplicibus flexuosis incurvatis laxis rufis; folia densa *subsecunda* erecto-patentia, oblonga acuminata integerrima enervia (?) concava involuta straminea nitentia, cellulis linearibus obsoletis (?); perich. ext. latissime ovata acuminata profunde concava obscure serrulata enervia dilute rufescentia laxius reticulata, interiora latiora brevius acuminata, intima minutissima latissima subrotunda mucronulata, cellulis parallelogrammis laxis; theca in ped. erecto gracili flexuoso laevi purpurascente suberecta oblonga rufescens;

perist. d. ext. intus valde cristati, linea perpendiculari diaphana exarati, rufescentes, int. solidi, ciliis rudimentariis (?). †.

*Leskea affinis* Hsch. Fl. Bras. I. p. 71.

*Patria.* Brasilia, in sylvis ad arbores prope Tijuca, vicinia Sebastianopoleos: Beyrich Aprili legit.

Ex animadv. auctoris *Leskeae stramineae* Hsch. et *constrictae* Brid. simillimum appellatur et differt a priori statura minori, ramificatione diversa, pedunculo ter breviori et theca multo minori, a posteriori foliis oblongis nec cordatis et pedunculo breviori.

**227. H. hookerioides** C. Müll.; monoicum; repens irregulariter subpinnatim ramosum, ramis brevibus erectis curvatis breviter ramulosis; folia caulina dense imbricata subsecunda erecto - patentia luteo - viridia concava, late ovata acuminata, obscure et remote serrulata, nervis debilibus obscuris infra medium evanidis, cellulis conferte linearibus; perich. ext. ovata breviter acuminata, interiora longiora oblonga longe acuminata, intima minuta lanceolata, omnia integerrima enervia dilute viridia laxe reticulata; theca in ped. unciali et longiori erecto apice curvato et incrassato flexuoso laevi purpurascente nutans obovata brevis inaequalis curvula paullo rugosa badia, operc. hemisphaerico - conico paulisper incurvo badio; perist. d. ext. linea longitudinali diaphana angustissima exarati subtilissime trabeculati, ad margines costato - prominentes ferruginei apice pallidi, int. in membr. lutescente aequilongi lati solidi, ciliis subulatis hyalinis, articulo inferiori plerumque bifido instructis. †.

*Hookeria hypnoides* Hsch. Fl. Bras. I. p. 67; sed calyptra cucullata!

*Patria.* Brasilia, prope Tijuca in vicinia Sebastianopoleos: Olfers.

*Hookeriae praelongae* ex auctore simillimum, sed foliis imbricatis subsecundis serrulatis binervibus distans.

**228. H. cavifolium** C. Müll.; caulis ascendens parce ramosus; folia conferta patentia subsecunda, sursum spe-



stantia, siccitate appressa, late ovata acuta enervia, margine reflexo; perich. ovato-lanceolata; theca in ped. brevi erecta subovata, operc. longirostro. †.

*Leskea cavifolia* Wils. Lond. Journ. of bot. 1844. 3. p. 161.

*Patria.* Brasilia, Jusajuba Bay pr. Rio, ad rupes: G. Gardner 1837.

*H. cespitoso* affine videtur.

**229. *H. secundifolium*** C. Müll.; caulis decumbens, ramis *elongatis robustis parce dichotomis* apice subcurvulis viridibus; folia caulina dense conferta secunda, *latiuscule elliptica acutiuscula, concava, margine reflexa, angustissime lineari-areolata, obsolete binervia* ramea *elliptico-oblonga obtusiuscula*; perich. erecta. †.

*H. lithophilum* Hook. et Wils. Fl. Antarct. II. p. 420. t. 155. f. 4.

*Patria.* Insula Eremitae ad Cap. Horn, societate *H. amoeni*: J. D. Hooker.

Ab *H. Loxensi*  $\beta$ . *rivulari* (*H. lithophilo* Hsch.!) notis expositis procul dubio differt.

**230. *H. crassicollum*** Tayl. (Lond. Journ. of bot. 1847. p. 337.); caulis procumbens repens subpinnatus; folia *magis imbricata* patentia, rotundato-ovata apiculata, *concavissima subdenticulata enervia*; pedunculi sparsi tennes laeves; theca ovata cernua basi apophysata, operc. *brevirostro*. †.

*Patria.* In monte Pichincha Andium Quitensium ad corticem arborum: W. Jameson, Nov. 1846. Demarara: Hb. Grevillean.

Caulis 1—2 unc. longus; specimina montis Pichincha viridia, Demararae luteo-viridia; ped. apice curvatus; theca macrostoma et apophysi distinctissima; perist. pallide fuscum, d. internis ciliis singulis interpositis. — Ab *H. molli* Dicks. ex animadv. auctoris notis laudatis differre legitur. Inter speciem hancce descriptam species duae distinctae videntur!

**231. *H. tenuirostre*** Hook. (Musc. Exot. t. 111.); caulis repens flexuosus filiformis, ramis erectis elongatis

crebre divisis remotis apice homomallis; folia caulina falcato-secunda undique inserta fusco-viridia nitentia, e basi angustiore ovata longe acuminata, summo apice denticulata, enervia; theca in ped. breviusculo recto inclinata ovato-oblonga fusca, operc. conico subulato obliquo; perist. d. int. imperforati, ciliis binis interjectis. †.

Brid. II. p. 616.

*Patria.* Dusky-Bay Novae Seelandiae: Menzies 1791.

**232. H. pyrrhophyllum** C. Müll.; monoicum; caulis repens ramosus, ramis erectis simplicibus rarius ramulosis dense foliosis rufescentibus; folia caulina dense imbricata patentia oblonga longe acuminata integerrima enervia nitentia profunde concava pellucida, inferne fuscescentia, superne pallide viridia, cellulis linearibus confertis; perich. ovato-acuminata, intima lanceolata longius acuminata subvaginantia; theca in ped. breviusculo tortili laevi purpurascente suberecta v. cernua parva oblonga parum inaequalis brunnea, basi fusca, operc. subulato obliquo thecam aequante; perist. d. ext. inferne ferruginei, int. solidi subhyalini, ciliis rudimentariis (?). †.

*Leskea fulva* Hsch. Fl. Bras. I. p. 73.

*Patria.* Brasilia, prov. Rio Negro, ad fl. Japurá, in montibus Araracoara et Cupati: Martius mensib. Decembris usque ad Martium fertile legit.

### B. *Folia uninervia.*

#### a. *Folia distincte homomalla.*

**233. H. leucostegum** C. Müll.; monoicum; caulis laxe cespitosus humilis prostratus, ad paginam inferiorem radicans, ad superiorem homomallophyllus glauco-viridis v. lutescens, parce breviter divisus, densifolius; folia caulina laxe imbricata, valde ad latus unicum spectantia, e basi angustiore breviuscule anguste ovato-acuminata integerrima cymbiformi-concava margine erecto v. vix revoluta, nervo unico ultra medium producta, cellulis mollibus virentibus elongatis angustis, alaribus multis

*laxe quadratis pellucidis, intus granulosis; perich. anguste vaginantia, reflexe acuminata; theca in ped. medioeri rutilante laevi nutans minute obovata, operc. conico recte rostrato, annulo nullo; perist. d. ext. angusti breves lutei, int. aequilongi solidi pallidi, ciliis vix brevioribus albidis singulis.*

*H. Breutelii* W. P. Sch. in litt. ad Breutel! — *H. flavo-nitens* C. Müll. Bot. Zeit. 1844. p. 742! — *H. subflavum* Hook. et Wils. Lond. Journ. of bot. 1844. in Musc. Gardner. No. 121! — *Leskea leucostega* Brid. II. p. 333!

*Patria.* In Antillis: Porto Rico: Bertero; Cuba, inter *Polypodium incanum*: Hb. Meissner.; St. Jan: Breutel ad cort. arborum. Brasilia, Serra de Araripe, ad arbores: G. Gardner.

Notis cursive impressis species distincta.

**234. *H. saxatile*** Hook. et Wils. (Lond. Journ. of bot. 1844. p. 164.); *monoicum*; *H. leucostego* simillimum, sed theca *horizontalis subcernuo-ovalis latior*, operc. conico *oblique* rostrato.

*H. Gardnerianum* C. Müll. Bot. Zeit. 1844. p. 742.

*Patria.* Brasilia, ad lapides sylvarum, Natividade, Jan. 1840: G. Gardner No. 123.

**235. *H. microstegum*** C. Müll.; *monoicum?* *H. leucostego* simillimum, sed theca *brevissime pedunculata, minutissime ovalis inclinata*, operculo *minutissimo conico papillato*.

*Hookeria prostrata* Harv. in Hook. Ic. Pl. Rar. t. 20. f. 5. — Cum descr. in Lond. Journ. of bot. 1840. p. 15.

*Patria.* India orientalis, Sylhet: Wallich.

Fructus nobis non visus.

b. *Folia subsecunda.*

α. *Pedunculus laevis.*

**226. *H. confertum*** Dicks. (Fasc. Crypt. IV. 1802! p. 17. t. 11. f. 14.); *monoicum*; cespites *conferti* prostrati viridissimi v. sordide lutei subnitentes; caulis repens, ramis subcompressis *confertis brevibus* vage ramosus, arcte

adhaerens; folia caulina *conferta*, saepius subsecunda, humore subpatula, e basi angustiore anguste oblongo-acuminata breviuscula subprofunde concava, margine erecto denticulato, nervo dimidiato tenui, cellulis elongatis angustis subpellucidis, alaribus *vix ullis*, ad infimam basin *vix impressam rectangularibus* pellucidis; perich. anguste vaginantia, strictiuscule breviuscule acuminata, obsoletinervia, longius laxius pellucidius reticulata, superne denticulata; theca in ped. breviusculo rubro laevi inclinata, e basi angustiore tenelle oblonga subcernua, ore coarctata, annulata, fusca, operc. conico sensim oblique longirostro; perist. d. ext. angusti rufescentes, int. flavi laeves angusti *vix* perforati, ciliis binis *brevioribus* teneris albis *nodosis*.

Brid. II. p. 405. — Schw. Suppl. I. II. p. 199. t. 90. — *Leskea Ludwigii* Brid. Sp. Musc. II. p. 61. — *Hypn. Ludwigii* Spreng. Anleit. z. Kenntn. der. Gew. III. 1804! p. 297. tab. 7. f. 56. — *H. Thuringicum* Web. et Mohr. Bot. Taschenb. p. 322. excl. Syn. Bridel. et Hedwig. — *H. clavellatum* Hdw. Musc. Fr. IV. p. 80, sub finem descriptionis *H. muralis*. — *H. serrulatum* Turu. Musc. Hib. p. 148 et Sm. Fl. Brit. III. p. 1290, excl. syn. Hedw. — *H. laete virens* Sm. Fl. Brit. III. p. 1290 e spec. auth., a Green ad Bridel olim missis! Forma omalioidea magis compressa, angustius areolata. Brid. II. p. 408! sub nomine appellato. *H. rotundifolium* Dicks. Fasc. II. Pl. Cr. p. 10. excl. Syn. Scop. et With. fide Bridelii.

*Patria.* Per totam Europam, praeter hyperboream, in saxosis regionis montosae vel in arborum truncis. Dickson detexit in Anglia. — *Primo vere.*

Ab *H. Megapolitano*, pro varietate plerumque credito, notis citatis certe differt; multis partibus cum *H. serrulato* Hdw. convenit, diversum autem habemus.

**237. H. murale** Neck. (Meth. Musc. p. 172.); *monoicum*; cespites latissime procumbentes sordide virides humiles, ditissime fertiles; caulis vage ramosus, ramis brevibus turgidis subhomomallophyllis; folia caulina laxa *conferta*, *subrotundate ovata breviter acuminata*, *valde concava subintegerrima*, margine erecto, nervo latiusculo ultra medium evanido plano viridi, cellulis brevibus am-

pliusculis pellucidis virescentibus mollibus, alaribus multis laxis pellucidis teneris introrsum impressis; perich. vaginantia acuminata laxe pellucide reticulata; theca in ped. plus minus breviusculo rufo flexuoso inclinata, *ventricoso-ovata* fuscidula, ore siccitate coarctata annulata, operc. conico longe oblique subulato; perist. d. ext. aurantiaci planiusculi lati longi, int. flavidi solidi lati, ciliis 2—3 albidis tenuissimis rugulosis nodosiusculis.

*H. Stereodon muralis* Brid. II. p. 586. — Hdw. Musc. Fr. IV. p. 79. t. 30. — *H. clavellatum* L. Sp. M. p. 1596. — *H. myosuroides*, brevius et crassius, capsulis cernuis. Dill. Musc. p. 318. t. 41. f. 52.

*Patria.* Ad muros septentrionem spectantes, fossarum margines lapideos, saxa humida, in sylvaticis udis montanis ad terram, per totam Europam usque ad Lapponiam. — *Vere.*

**238. H. neglectum** Brid. (Sp. Musc. II. 1812! p. 120.); *monoicum*; cespites *humiles conferti* virides v. lutescentes; caulis repens, ramis *humilibus ascendentibus tenuibus subjulaceo-teretibus pungentibus*; folia caulina dense conferta, interdum subsecunda, breviter oblonga obtusiuscule brevissime acuminata, concava, margine distincte erecto *integerrimo*, nervo tenui ultramedio flavido unico, interdum gemello, cellulis *angustissimis subconfatis breviusculis* pallidis, alaribus paucis laxius quadratis subpellucidis et parum ventricose impressis; perich. stricta appressa pallida majuscula exserta, *anguste longiuscule lanceolato-acuminata*, *elongate angustissime* pellucide areolata, 1—2 nervia, plicata; theca in ped. brevi laevi flexuoso rubro inclinata cylindraco-oblonga cernua, annulata, operc. conico *brevi subobliquo acuto*; perist. d. ext. lati planiusculi lutei, int. flavidi subpunctulati, ciliis binis albis nodosis brevibus.

*H. Stereodon neglectus* Brid. II. p. 564. — *H. Stereodon intextus* Brid. II. p. 584 vel *H. intextum* Voit. Musc. Herbip. 1812! p. 106. et in Sturm. Deut. Fl. II. Fasc. XI. e specim Funk. partim huc, partim ad *H. serpens* pertinet; *H. intertextum* Brid. Mant. Musc. 1819. p. 167; *H. ruderale* var. *intricatum* Brid. in Sp. Musc.

II. 1812, in Add. — *Leskea julacea* Brid. Sp. Musc. II. p. 68! et Br. univ. II. p. 304.

*Patria.* In udis Germaniae in Franconia De la Vigne 1800 detexit, dein locis accuratius non designatis Montis Piniferi ad rupes legit Funk 1825; in Valesia Helvetiae et in Sabaudia: Thomas 1820; circa Romam in Esquiliis: Bridel 1806; prope Avenionem Galliae australis: Requier 1820; in alpibus Helveticis in terra nuda: Roger.

Ab *H. murali* characteribus cursive impressis toto coelo differt; ab *H. conferto* foliis integerrimis ramisque julaceis jam refugit. Species pulcherrima revera neglecta, probabiliter praetervisa!

**239. *H. tenuifolium*** Hdw. (Sp. Musc. p. 283. t. 75.); caulis arcuatim protensus, ad extremitates radicans, ramis simplicibus arcuatis pallidis robustiusculis haud attenuatis; folia caulina inferiora minutula, ab inde confertiuscula imbricatulo-potentia, saepe ad unum latus magis directa, tenuia, late ovata breviter acuminata integerrima, breviter uninervia; theca in ped. purpureo laevi arcuato mediocri recta, curvatura pedunculi ad latus spectans, ovata; perist. d. ext. rubri, apice albi, transversim striati, medio lenius pellucidi, interni ciliis binis. †.

*Isothecium tenuifolium* Brid. II. p. 383.

*Patria.* Insulae Australes: Banks?

*H. murali* affine videtur.

**240. *H. Andrieuxii*** C. Müll.; *dioicum*; cespites laxissime cohaerentes, humiles decumbentes *amoene lutescentes v. aurescentes*; caulis decumbens multoties dichotome divisus; rami curvuli breves homomallophylli *robustiores*; *tenuiusculi*; folia caulina subsecunda conferta, *breviuscula, oblongo-lanceolata, superne subobliqua*, profunde concava subcomplicata, margine e basi usque ad apicem late revoluta, superne parce dentata, nervo unico dimidiato complicato, cellulis angustissime linearibus pellucidis v. lutescentibus, alaribus multis laxe quadratis pellucidis; perich. e basi late vaginante laxissime reticulata amoene

pellucida enervi vel obsoletinervi in acumen breve latiusculum acutatum subreflexum attenuata, subintegerrima; theca in ped. elongato purpureo *laevi* erecta, *elongate anguste cylindrica*, vix arcuata, aurantiaca; perist. d. ext. breviusculi rufescentes involuti, int. *in membrana altiuscula libera flava laxa reticulata*, ciliis singulis latis rudimentariis.

*Isothecium* (*Entodon*) *Andrieuxii* Mont. in litt.

*Patria.* Mexico: *Andrieux*.

*H. subcapillato* proximo characteribus expositis alienum. Pl. mascula femineae intermixta fragilis, floribus minute gemmaceis deciduis intense fuscescentibus.

241. **H. pterogonoides** C. Müll.; *dioicum*; caulis repens, ramis *vagis subfasciculatis assurgentibus curvulis subtenuibus, obtusiusculis subjulaceo-foliosis, e lutescenti fuscescentibus, rigidiusculis*; folia caulina dense imbricata, vix homomalla, breviter anguste oblonga acuta plicatula, concava, margine ubique anguste revoluto integerrimo, nervo tenui ultra medium evanido, cellulis anguste oblongis pallide lutescentibus subconflatis, alaribus ad basin totam infimam laxa quadratis turgidis amplis fuscis, decurrentibus; perich. appressa longius acuminata; theca in ped. longiusculo recto laevi rubro erecta oblonga angusta, operculo conico acuto.

*Leskea pterogonoides* Harv. in Hook. Ic. Pl. Rar. t. 24. f. 8; cum descr. in Lond. Journ. of bot. 1840. p. 17.

*Patria.* Nepal: *Wallich*.

Quoad characteres expositos species facile discernenda, *H. fulvo* et *leucostego* e structura interna affinissima. Thecam non vidimus.

242. **H. lucidulum** Hook. et Wils. (Fl. Antarctic. II. p. 418. t. 155. f. 1.); *dioicum?* caulis humilis ramosus, cespitosus mollis fragilis, ramis brevibus dichotomis densifoliis obtusiusculis pusillis; folia caulina dense conferta erecto-patentia vix secunda, pallide viridia nitida, ovato-acuminata, apice attenuata, caviuscula, tenera, concava, margine integerrimo reflexa, nervo brevi tenui, saepius

furcato, cellulis angustissimis; perich. ovata breviter acuminata, erecta, integerrima; theca in ped. longiusculo laevi rubro, apice incurvato inclinata, ovato-oblonga basi attenuata, parva, brunnea; perist. d. ext. lutei, int. albescentes, ciliis binis. †.

*Patria.* Insula Eremitae, ad rupes humidas: J. D. Hooker.

Ex auctoribus *H. Seligeri* habitu subsimile, *H. adnato* tamen affinius.

β. Pedunculus papillosus.

**243. H. oedistegum** C. Müll.; *monoicum*; cespites densi flavissimi nitiduli humiles; caulis repens, ramis confertissimis robustiusculis ascendentibus brevibus parce ramulosis subcurvatis *subcompressis* vage ramosus; folia caulina laxe plumose imbricata, *vix subsecunda*, humore patula, *angustissime lanceolato-acuminata*, concava, superne subdenticulata, margine erecto, nervo *tenui* dimidiato, cellulis angustissime linearibus elongatis densis virescentibus, alaribus *ad alas planas vix ullis*, *infima basi pluribus rectangularibus viridibus majusculis*; perich. late vaginantia longe et subreflexe tenuiter acuminata, maxime obsoletinervia, basi laxius reticulata, superne viridia, subdenticulata; theca in ped. mediocri rubro, inferne *laeviusculo*, *superne scabriusculo* inclinata, *anguste oblonga*, ore coarctata, subannulata, firma rufa, operc. *turgide conico obtuso apiculato*; perist. d. ext. rubiginoso-lutei, int. flaviduli subgranulosi vix hiantes, ciliis 1 — 2 aequilongis *nodosis* hyalinis.

*H. pseudoplumosum?* Mont. Ann. d. sc. nat. 1842. Crypt. Nilgher. No. 12!

*Patria.* Montes Neelgherienses, in montibus Avalanchy: Perrottet.

Ab *H. pseudoplumoso* characteribus laudatis longe diversum.

**244. H. pseudoplumosum** Brid. (Sp. Musc. II. p. 159.); *monoicum*; cespites densi robusti virides vel fusciscentes; caulis repens, ramis *confertis breviusculis den-*



*sifoliis, apice saepius curvulis, ascendentibus, parce breviter ramulosis; folia caulina, dense imbricata, parum vel distincte secunda, magna, late ovata breviter acuminata, subintegerrima, concava, margine erecto, nervo lato dimidiato, cellulis angustissime linearibus densis firmis viridibus, alaribus ad alas basilares plus minus ventricose impressas multis quadratis, plerumque incrassatis, dein fuscidulis; perich. late vaginantia, longe et parum reflexe acuminata, subintegerrima, obsoletinervia, elongate anguste areolata, firminuscula virescentia; theca in ped. mediocri valido rubro superne scabriusculo inclinata, rufa, dein brunnescens, turgide gibboso-ovalis, operc. conico brevissimo concolori, annulo angustissimo arcte adhaerente; perist. robusti d. ext. inferne rubiginosi, int. flavi subgranulosi hiantes, ciliis binis longis capillaribus albidis longe appendiculatis.*

Brid. II. p. 472. — *H. plumosum* auctorum, qui pedunculum scabrum declaravere. — *H. alpinum* Sm. Fl. Brit. III. p. 1330! Engl. Bot. t. 2071. — *H. aquaticum* Fk. Moost. p. 61. t. 44. fide Bridelii. — *H. laevisetum* Crome! in Magaz. d. Naturf. Freunde. 5. Jahrg. p. 78. t. 3. f. 5. 13; e spec. cum ped. scabro! — *H. saxatile* Brid. Musc. Rec. II. II. p. 153! — *H. asperulum* Brid. Sp. Musc. II. p. 169! — *H. polyrrhizon* Brid. Sp. Musc. II. p. 176! Spec. auctori a P. B. ex America donata. — *H. hygrophilum* Brid. olim in schedis. — *Leskea plumosa* Sw. Musc. Suec. p. 69. ex Schwägrichen. Suppl. III. 1. 1. t. 225. sub *H. plumoso*, quod huc pertinet!

*H. asprellum* Schw. Suppl. I. II. p. 246! — Brid. II. p. 480. E spec. detectoris Richard procul dubio huc pertinet.

*Patria.* Ad lapides humidus, praesertim rivulorum regionis montanae et subalpinae per totam Europam, usque ad Lapponiam. Ad lapides rivulorum Sudetorum „im Schnallensteinschen Forste” primus omnium, sed rarissime legit Seliger! In America sept. legit P. B. et Drummond, qui ad rupes madidas ad „Lake Superior” legit et sub nom. *H. plumosi* No. 177 edidit, primus omnium autem Richard. — *Junio.*

Notis cursive impressis facile cognoscitur. Habitus saepius *H. palustri*  $\beta$ . *subsphaericarpo* simillimus. Ab *H. plumoso* saepe commutato longe discrepat.

245. *H. subcapillatum* C. Müll.; *monoicum*; cespites lati depressi, sericeo-virides; caulis tenellus pusillus repens, ramis brevibus erectis subcurvulis; folia caulina conferta, *anguste vix secunda, ovato-acuminata, acumine longiusculo, profunde concava*, margine basi vix reflexo, *superne subdenticulato, nervo unico tenui ultramedio*, cellulis brevibus oblongo-linearibus dilute viridibus *majoribus*, alaribus *submultis laxe quadratis pellucidis*; perich. multo teneriora, vaginantia longius acuminata, flaccida, denticulata, ubique laxiuscule pellucide tenero-reticulata; theca in ped. erecto breviusculo flexuoso rufo, *ubique papilloso suberecta, ovato-oblonga, ore coarctata*, exannulata, operc. conico *oblique subulato*; perist. d. ext. lanceolati obtusiusculi intense rubri, intus valde cristati, carnosuli, linea diaphana *latiuscule exarati*, int. externis adglutinati subaequilongi, *haud secedentes, subcapillares tenerrime membranacei vix conspicui*, ciliis rudimentariis singulis.

*Lasia subcapillata* Brid. II. p. 202. — *L. scabriseta* Brid. olim. — *Pterigynandrum subcapillatum* Hdw. Sp. Musc. p. 83. t. 16. f. 9—12. — *Pterogonium subcapillatum* Schw. Suppl. I. I. p. 107. — *Pt. decumbens* Schw. Suppl. II. I. p. 32. t. 110!

*Patria.* America septentrionalis, haud frequens, soc. *H. intricati*, in Pennsylvania a Mühlenberg ad arbores detectum. — *Sub aestatis finem.*

Ab *H. intricato* characteribus expositis facillime distinguitur.

#### Incertae sedis.

246. *H. ruderale* Brid. (Sp. Musc. II. p. 160.); caulis repens, ramis tenellis brevibus angustis viridibus; folia dense imbricata, suprema vix secunda, anguste ovato-lanceolata, stricte acuminata, ob marginem valde revolutum subdenticulatum biplicata, nervo ultra medium evanido, cellulis angustis longiusculis pellucidis, alaribus perfecte quadratis laxiusculis pellucidis multis mollibus parvulis.

*H. Stereodon ruderale* Brid. II. p. 585. — *H. viridulum* Brid. Sp. Musc. II. p. 181.

*Patria.* Hispaniola, in ruderatis: Poiteau.

Species distincta quidem, sed ob specimina valde incompleta Hb. Bridelii sedem certe non occupans. Estructura folii interna *H. leucostego* affine.

**247. *H. fulvum*** C. Müll.; caulis repens vage ramosus, ramis brevibus *gracilibus*, *apicem versus subclavate incrassatis aurescentibus*; folia caulina dense imbricata, *vix subsecunda*, *anguste oblongo-lanceolata*, *subcomplicate concava*, *marginibus ubique valde reflexo*, *apice subserrulato*, nervo dimidiato canaliculate carinato, cellulis oblongis pallescentibus v. lutescentibus densiusculis, alaribus *submultis laxe quadratis amoene pellucidis* v. intus granulosis.

*Leskea fulva* Harvey in Hook. Ic. Pl. Bar. t. 23. f. 2. et c. diagnosi pauperrima in Lond. Journ. of bot. 1840. p. 16.

*Patria.* Nepal: Wallich.

E characteribus expositis facile discernendum, sterile tantum notum, quoad structuram internam *H. leucostego* affinibusque simile.

c. *Folia haud secunda.*

**248. *H. Megapolitanum*** Blandow (in Sturm. Deut. Fl. II. Fasc. 9.); *monoicum*; cespites late procumbentes virides; caulis repens, ramis *elongatis flaccidis laxe intertextis* subcompressis parum ramulosis vage ramosus; folia caulina *laxe imbricata*, *e basi subcordata impressa ovata acuminata*, *tenera*, *acumine brevi semel torto terminata*, *planiuscula*, *marginibus infima basi reflexo ubique denticulato*, nervo dimidiato carinato tenui, cellulis angustis longiusculis pellucidis teneris, alaribus ad alas impressas *multis quadratis intus granulosis*; perich. *latiuscule vaginantia*, *longe subreflexe acuminata*, *obsoletinervia*, *laxissime pellucide reticulata*, *tenerrima*; theca in ped. mediocri flexuoso laevi rubro inclinata *H. conferti*; perist. d. int. *valde hiantes*, ciliis binis *aequilongis valde appendiculatis*.

Brid. II. p. 491.

C. Müller: Synops. musc. frond.

*Patria.* Per Germaniam, Galliam et in Pyrenaeis occidentalibus prope Aq. Tarbellicas: Spruce; in arenosis humidis umbrosis exsiccatisque inundatis rarius occurrit. In collibus arenosis sylvaticis prope Waren in terra Megapolitana Blandow copiose primus legit. In umbrosis ad terram lapidesque prope Cagliari Sardiniae m. Januarii formam majorem robustiorem legit Fr. Müller. — *Primo vere.*

Ab *H. conferto* saepius conjuncto virtutibus designatis certe refugit.

249. **H. raphidorrhynchum** C. Müll.; *monoicum*; *H. Megapolitano* simillimum, sed folia *anguste ovato-acuminata*, *haud cordata*, subdenticulata, e cellulis *angustissimis elongatis viridibus*, alaribus parum impressis *paucis subincrassate quadratis*, *haud amoene pellucidis*, *composita*, *firmiora*; perich. *firmiora*; theca longius pedunculata, *longius cylindraceo-oblonga*, *valde arcuata*, longissime aciculari-operculata, late annulata; perist. int. ciliis binis *haud appendiculatis*.

*Patria.* In sylvis primaevis prom. b. spei, prope Krakakamma (Distr. Uitenhage), ad lignum putridum copiose legit m. Jul. 1832 Zeyher.

250. **H. leptomerocarpum** C. Müll.; *monoicum*; *H. Megapolitano* simillimum, sed folia angustiora, *angustius longius densissime reticulata*, *ubique distincte serrulata*, *profunde carinata*; perich. *anguste* vaginantia *brevius stricte acuminata*, *enervia*, *robustius densius reticulata*; theca *minute ovata*, ore coarctata, annulata, opere. conico subito *maxime oblique* rostrato; perist. d. ext. *internis breviores*, *apice serrulati*, int. *subrugulosi perforati*, ciliis binis *rudimentariis*.

*H. Megapolitanum* Hsch. in Musc. Mexican. No. 1096.

*Patria.* Mexico, Xalapa: Schiede.

251. **H. cespitans** C. Müll.; *dioicum*; cespites latissimi decumbentes, viridissimi vel atro-virides; caulis longe repens, ramis brevibus teretibus strictis confertis subtenuibus assurgentibus vix ramulosis pinnatim vage

divisus; folia caulina conferta appressa, *haud secunda, humore erecto-patentia*, subrotundate ovalia, breviter acuminata, concava, estriata, margine basi parum revoluta, apice vix conspicue denticulato, nervo ultra medium evanido viridi, cellulis brevibus *angustissimis* plerumque sordide chlorophyllose virentibus mollibus, alaribus *vix conspicuis* quadratis; perich. pauca appressa, e basi vaginante *minute tenerrime* reticulata pellucida enervi breviter stricte et acute acuminata, integerrima; theca in ped. breviusculo rubente *ubique papilloso erecta cylindraceo-oblonga angusta brevis*, late annulata, operc. conico *brevi obtuso apiculato*; perist. d. ext. rufescentes, superne subserrulati, int. angusti perforati flavi laeves, ciliis **1—2** *brevissimis* albis laevibus.

*H. cespitosum* Wils. Engl. Bot. Suppl. t. 2878.

*Patria.* Anglia, in muris prope Warrington Lancashire, ubi Wilson detexit, quocum Martio 1847 legit W. P. Schimper, qui nobis benevole communicavit. Ad arborum radices in pratis irriguis arenaque suffusis prope Aquas Tarbellicas Pyrenaeorum occidentalium, ubi in planitie legit Spruce, cujus specimina nostro Montagne debemus.

*H. murali* habitu peraffine, sed notis laudatis primo adspectu distinguendum et pulchra species.

#### Incertae sedis.

**252. *H. clinocarpum*** Tayl. (Lond. Journ. of bot. 1848. p. 194.); dioicum? caulis procumbens subbiuncialis implexus vage ramosus, ramis brevibus subcomplanatis; folia laxa patentia concava estriata, late ovata acuminata dentata, ultra medium uninervia; theca in ped. scabro apice decurvo ovato-oblonga inaequalis inclinata; perist. d. int. ciliis tribus brevissimis interpositis. †.

*Patria.* Monte Pichincha: W. Jameson, Decbr. 1846.

Auctor *H. rutabulo*, foliis confertioribus erectioribus plicatis et theca haud arcuata jam longe recedenti, comparavit.

Subsectio III. **Isothecium** Brid. II. p. 355, emend. — Caulis decumbens vage ramosus plus minusve robustus; folia ovato-lanceolata vel acuminata, *distincte plicata*, e cellulis elongatis mollioribus areolata, erecto-conferta, plus minusve subsecunda, plumose imbricata.

A. *Theca erecta.*

**253. H. sericeum** L. (Sp. Pl. p. 1595); *dioicum*; cespites latissimi decumbentes sericeo-lutei; caulis longe repens et saepius longe prostratus, ramis fastigiatim confertis erectis *curvatis* v. pinnatim dispositis appressis, breviter ramulosis, attenuatis sciuroideis; folia caulina plumulose imbricata subsecunda, lanceolata longiuscule acuminata acutissima, stricta, margine inferne revoluto vix denticulato, plicis pluribus profundis, nervo subvalido viridi ante apicem evanido, cellulis angustissime linearibus luteis vix pellucidis densis, alaribus multis minute quadratis pellucidis pachydermibus; perich. multo longius acuminata erecta nervosa plicata; theca in ped. purpureo scaberrimo tortili *erecta subcylindrico-elliptica microstoma cernua pallida* anguste annulata, operc. conico oblique acuminato; perist. d. ext. anguste lanceolato-subulati rufescentes dense trabeculati intus tenuiter cristati, int. in membrana flavida *rugulosa angusti breves solidi rugulosi*, ciliis singulis *rudimentariis* interpositis.

*Isothecium sericeum* Spruce in Musc. Pyren. No. 76. — *Leskea sericea* Hdw. Musc. Fr. IV. p. 43. t. 17. — Brid. II. p. 295. — *Neckera sericea* Hdw. Fund. Musc. II. p. 93. — Hypnum vulgare sericeum recurvum, capsulis erectis cuspidatis. Dill. Musc. p. 325. t. 42. f. 59.

*Patria.* Per totam Europam et in America septentrionali, e Canada usque ad Rocky Mountains, in terra, ad saxa, rupes et arborum corticem vulgare. — *Hyeme et vere.*

Ab *H. lutescente* characteribus laudatis distinguitur.

**254. H. Philippianum** C. Müll.; *dioicum*; *H. sericeo* simillimum, sed *rami siccitate erecti*, minus sericei, folia *excurrentinervia*; theca in ped. *sublaevissimo*; perist. d. ext. *pallidi tenuiter membranacei, intus haud cristati*,

*articulate trabeculati*, interni *pallidi* lineari-subulati solidi tenerrime papilloso.

*Isothecium Philippianum* Spruce in Musc. Pyr. No. 77 et Ann. and Mag. 1849. Musc. Pyr. No. 88.

*Patria.* Ad saxa calcarea Pyrenaeorum, in umbrosis montis Lhieris, prope Bagnères-de-Bigorre; in rupibus graniticis sylvae Bois de Gouerdère dictae, prope B.-de-Luchon, in zona montosa superiore: Spruce auctumno et hyemis initio legit.

Species revera distinctissima!

255. *H. luteolum* C. Müll.; *dioicum!* cespites latissimi prostrati laete virides v. lutescentes subsericei; caulibus longe repens prostratus, ramis remotis decumbentibus substrictis parce divisis sciuroideis; folia caulina dense conferta, humore erecto-patentia, e basi late ovata longe acuminata, pluries profunde plicata, margine ubique valde revoluto subdenticulato, nervo ultra medium evanido, cellulis *angustissime linearibus luteis vix pellucidis densis*, alaribus multis *minute quadratis, intus granulosis v. parum pellucidis*; perich. e basi late vaginante longissime acuminata, obsoletinervia, interna ante acumen emarginate dentata, caetera subintegra, elongate laxe pellucide reticulata; theca in ped. mediocri rubro laevissimo erecta, *longiuscule* anguste cylindrica arcuata, macrostoma, fusca, exannulata, operc. conico breviter oblique acuminato; perist. d. ext. in acumen capillare subserrulatum attenuati lutei, int. laeves flavi hiantes longi, ciliis singulis v. binis capillaribus longis nodosis albis tenerrimis.

*H. laetum* Sendtner in schedis!

*Patria.* Bayerbrunn prope Monachium, in „Nagel-fluhe” inter fruticeta, *H. lutescenti* consociatum: Sendtner. — *Per totam hyemem.*

Ab *H. laeto* Brid. characteribus cursive impressis longe differt; ab *H. lutescente* pedunculo laevissimo et theca erecta primo adspectu distinguitur.

256. *H. laetum* Brid. (II. p. 479.); *monoicum!* *H. luteolo* simillimum, sed folia *elongate pellucide laxius re-*

*ticulata*, cellulis alaribus *laxe quadratis distincte pellucidis*; theca *brevior*.

*Patria.* America septentrionalis, respública Massachusetts in vicinia urbis Deerfield: Dewey, e cujus collectione Torrey ad Bridel misit.

Non satis notum.

**257. H. congestum** Sw. (Prodr. Fl. Ind. Occ. p. 142.); *dioicum*; caulis longiusculus declinatus, ramis confertissimis simpliciusculis brevibus patentibus teretibus robustiusculis erectiusculis vel declinatis, apice *leviter curvatis dilute viridibus nitentibus*; folia caulina longe lanceolata plicata subsecunda integerrima, nervo ante apicem evanido; perich. lanceolata conniventia; pedunculi numerosi erecti rubri *breves* (laeves?); theca *minuta ovata erectiuscula*, *rarius e curvatura pedunculi subnutans*, fusco-rubra, operc. convexo oblique rostellato saturate rubro; perist. d. ext. rubri, int. albidissimi. †.

Hdw. Sp. Musc. p. 283. t. 74! — *Leskea congesta* Brid. II. p. 323 ex parte!

*Patria.* In insula Jamaica, ad truncos vetustos, regione temperatiore: Swartz. Insula Antillarum Montserrat, unde habuit Hedwig, an verum autem, dubii sumus.

Ab *H. aureo*, quocum Bridel confudit, toto coelo distat.

**B. Theca inclinata.**

a. *Pedunculus laevis.*

α. *Inflorescentia monoica.*

**258. H. plumosum** L. (Sp. Pl. p. 1592.); *monoicum!* cespites lati *laxe cohaerentes lutescentes*; caulis repens, ramis elongatis flexuosis *flaccidis* sciuroideo-attenuatis lutescentibus parce breviter ramulosis vage ramosus; folia caulina *laxe imbricata*, humore patula, magna, late ovata longe latiuscule acuminata, subdenticulata, laeviter striata, caviuscula, margine *erecto vel vix reflexo*, nervo dimidiato, cellulis pellucidis mollibus *longiusculis pallidis*,



alaribus ad alas basilares *impressas* decurrentes *paucis* laxioribus quadratis *parum distinctis*; perich. late vaginantia, longe reflexe acuminata, obsoletinervia, longius et laxius reticulata, *subintegerrima*; theca in ped. elongato rubro laevi inclinata gibboso-ovalis, rufa, exannulata, operc. conico acuto concolori; perist. d. ext. robusti rubiginosi, superne lutei, latere integri, int. flavi subgranulosi valde hiantes, ciliis binis brevioribus *appendiculatis* granulosis albis *saepius obsolete evolutis*.

Brid. II. p. 475. — Hedw. Musc. Fr. IV. p. 37. t. 15! — *H. repens*, filicinum plumosum. Dill. Musc. p. 280. t. 35. f. 16??

*β. salebrosum*; folia profunde plicata, margine plica ubique distinctius reflexo et distinctius denticulato vel serrato; perist. int. cilia perfecta capillaria vix appendiculata. *H. salebrosum* Hoffm. Deutsch. Fl. II. p. 74. — Brid. II. p. 477. c. varietatibus! — *H. fasciculatum* Lam. Encycl. Meth. Bot. III. p. 177. fide Bridelii. — *H. capillaceum* Starck in Brid. Sp. Musc. II. p. 174! et Br. univ. II. p. 481. — *H. Thomasii* Brid. Sp. Musc. II. p. 175!

*Patria.* Per totam Europam temperatiorem, in Scandinavia hucusque in Gothia boreali, praeprimis ad fossarum latera, in pratis, ad rupes et saxa sylvarum umbrosarum. Var. *β.* per totam Europam usque in Lapponiam. — *Vere.*

Ab *H. glareoso* et *albicante* characteribus laudatis longe differt.

**259. III. lamprocarpum** C. Müll.; *monoicum*; cespites latissimi *mollissimi sericeo-pallescens*; caulis decumbens repens, ramis decumbentibus flexuosis elongatis attenuatis flaccidis pinnatim divisis, saepius iterum breviter ramulosis vage ramosus; folia caulina laxè imbricata subsecunda, *e basi angustata anguste ovato-acuminata* longiuscula, leviter plicata, caviuscula, margine leviter revoluta, sursum serrulata, nervo ultra medium evanido tenui, cellulis elongatis pellucidis, alaribus *planis, nec decurrentibus nec impressis*, quadratis pellucidis laxiusculis paucis; perich. *anguste* vaginantia, longe flexuose pilifera, denticulata, laxius reticulata, enervia; theca in

ped. brevi rubro laevi *parum inclinata, saepius erecta, oblonga, nitido-badia, brevis, ampliuscula; perist. H. plumosi.*

*Patria.* Java, ubi in montosis ad truncos ramosque *Gnaphalii Javanici* m. Novbr. legit Junghuhn.

*H. plumoso* simillimum, characteribus autem expositis facile discernibile. Operculum non observavimus.

**260. H. oxycladon** Brid. (Sp. Musc. II. p. 128.); *monoicum; caulis humilis prostratus, utrinque ramis brevibus simplicibus tenuiusculis acutis vel fasciculatim divisus assurgentibus strictis luteo-viridibus subsericeis pinnatim vel vage ramosus; folia caulina conferta parum secunda, anguste lanceolato-acuminata, laeviter biplicata, stricta v. curviuscula, vix denticulata, cellulis alaribus laxiuscule quadratis tenuibus intus granulosis; perich. nervata, interna longe subfiliformi-attenuata, haud plicata; theca in ped. laevi inclinata ovalis aequalis, operculo conico obtuso, recto; perist. d. int. haud hiantes, ciliis longis teneris albidis singulis interpositis.*

Brid. II. p. 423. — Schw. Suppl. III. II. 2. t. 285. — *H. attenuatum* Brid. II. p. 448, foliis densius areolatis magis plicatis.

*Patria.* Pennsylvania: Mühlenberg.

Ab *H. lutescente* haud dissimili characteribus expositis toto coelo distat.

β. Inflorescentia dioica.

**261. H. albicans** Neck. (Meth. Musc. p. 180.); *dioicum; cespites densi luteo-virides pallidi sericei; caulis repens, ramis teretibus gracilibus erectiusculis longiusculis amoene sciuroideis, summo apice tantum attenuatis vage ramosus; folia caulina dense conferta, humore patentia, vix secunda, late ovata, in acumen longum subtenue strictum attenuata, valde concava plicata, margine ante acumen ubique maxime et amoene revoluta subintegerrimo, nervo dimidiato, cellulis breviusculis pellucidis mollibus, alaribus ad alas basiales amoene et longe decurrentes permultis laxe quadratis amoene hyalinis; pe-*

rich. e basi late vaginante laxissime reticulata pellucida tenera apice subsinuato-emarginatâ longissime capillari-acuminata stricta v. reflexa, interna enervia; theca in ped. mediocri rubro laevi inclinata *parva turgide gibboso-ovalis* brunnea, angustissime annulata, operc. conico brevissimo concolori; perist. d. ext. robusti rubiginosi, intus valde cristati, int. in membrana flava alta densissime reticulata angusti valde perforati laeves, ciliis binis brevibus pallidis.

Brid. II. p. 492. — Hedw. Musc. Fr. IV. p. 13. t. 5. — *H. rivulare* Brid. Musc. Rec. II. II. p. 177. — *Neckera albicans* Willd. Prodr. Fl. Berol. No. 940. — *H. flavescens* Roth. Fl. Germ. III. p. 303. — *H. albicans*  $\beta$ . *flavescens* Brid. II. p. 494. — *Hypnum sericeum*, gracile, albicans, capsulis subrotundis. Dill. Musc. p. 328. t. 42. f. 63.

*Pterigynandrum cirrhosum* Brid. II. p. 184 procul dubio e spec. auth. huc revocandum. — *Maschalocarpus Weinmannianus* Spreng. ex Bridel.

*Patria.* In apricis, ericetis, collibus pascuisque arenosis per totam Europam temperatiorem in regione montosa atque in planitie. In America septentrionali. In locis humidis caulis multo robustior et ramosior, sed rarius fertilis observatur. — *Primo vere.*

Characteribus laudatis facile discernibile.

**262. H. glareosum** Bruch (in schedis); *dioicum*; *H. albicanti* simillimum, sed rami *multo robustiores et ramosiores*, sericeo-lutescentes v. intense virides; folia caulina majora, *longissime* acuminata, profundius plicata, superne saepius undulata, cellulis *elongatis* laxioribus, alaribus *indistinctioribus* laxioribus; theca *major oblonga cernua*, operculo *longius acuminato acutiori*.

*H. albicans*  $\gamma$ . *Minnidunense* Brid. II. p. 494. — *H. salebrosum* H. et T. Musc. Brit. p. 166. t. Suppl. 5. ex parte fide *Sprucei*! — *H. lutescens* Drumm. Musc. Amer. No. 174!

*Patria.* Locis umbrosis ad terram et rupes hic illic per totam Germaniam, in regione montosa atque planitie; in Suecia ex *Ångström*; in Anglia teste *Spruce*; in Vogesi arenosis: *W. P. Schimper*; circa *Minnidunum* Helvetiae in montibus salebrosis primus legit *Bridel*. Ad

radices arborum Americae septentrionalis legit Drummond. Verosimiliter praetervisum! — *Primo vere.*

Inter *H. albicans* et *plicatum* medium tenet; a posteriori differt: ramis flaccidioribus magis compressis, foliis vix secundis, minus plicatis, elongate laxiuscule areolatis, quorum alae basilares laxissime reticulatae et perist. interno.

**263. *H. implicatum* Hornsch.** (in Musc. Capens., a Mundt et Maire lectis!); *dioicum*; cespites latissimi *dense implicati molles pallescentes* procumbentes; caulis longe repens, ramis *subpinnatim breviter ramulosis* vage ramosus, ramulis *subcurvulis subsericeis*; folia caulina dense conferta, humore subplumose patula, parvula, *e basi late ovata concava subito fere in acumen strictiusculum vel plus minus crispato-cirrhosum* longiusculum producta, biplicata, margine *ubique convexo vix denticulato*, nervo ante acumen evanido viridi tenui flaccido, cellulis elongatis *pellucidis*, alaribus ad alas convexas, haud impressas, quadratis *laxioribus valde pellucidis*; perich. e basi anguste vaginante laxissime reticulata obsoletinervi longissime reflexe acuminata, vix denticulata; theca in ped. longiusculo laevi purpureo inclinata, subcernuo-oblonga brunnescens, sicca ore coarctata; perist. d. ext. robusti rubiginosi, int. flavidi subpunctulati hiantes, ciliis ternis subrugulosis albidis.

*Patria.* Prom. b. spei, Hangklipp: Mundt et Maire.

Praeter notas laudatas teneritate caulis sericei facile cognoscendum et *H. sericeo* haud dissimile.

**264. *H. Buchanani* Hook.** (Trans. of the Linn. Soc. Lond. IX. p. 320. t. 28. f. 3.); *dioicum*; cespites late prostrati molles pallide lutescentes sericei; caulis repens, ramis longiusculis, ramulis *deorsum curvulis breviter pinnatis* attenuatis vage ramosus; folia caulina densiuscule imbricata, e basi *anguste ovata* longiuscule *parum oblique* acuminata, *laeviter plicata*, concava, margine *ubique fere convexo* denticulato, nervo tenui ante acumen evanido, cellulis *angustissime linearibus densis teneris pal-*

*lescentibus* mollibus, alaribus ad basin convexam *paucis parvis* quadratis, intus granulosis; perich. e basi vaginante longissime reflexe et tenuiter acuminata subintegerrima tenerrima elongate laxe pellucide reticulata nervia; theca in ped. mediocri laevi rubro inclinata majuscule oblonga *exannulata*, operc. conico brevi; perist. d. ext. rubiginosi, superne subserrulati, int. flavi laeves subper-tusi, ciliis binis teneris albis nodosis.

Schw. Suppl. III. I. 1. t. 224. — Brid. II. p. 423.

*Patria.* Nepal: Buchanan; ex India orientali in locis non designatis collectum ex Hb. Sendtneriano accepimus.

Ab *H. glareoso* characteribus expositis longe differt.

**265. H. subplicatum** Hmp. (in litteris!); *dioicum*; caulis elongatus crassus lutescens, ramis elongatis robustis lutescentibus apice vix curvulis v. cuspidulatis dichotome divisus; folia caulina dense conferta, majuscula, vix conspicue secunda, *latissime rotundate ovata*, ex apice *obtusiusculo in acumen piliforme breve flexuosum producta*, parce leviter (*haud profunde sulcate*) *plicata*, concava, margine *ubique erecto* obsolete denticulato, nervo tenuissimo, ultra medium evanido, *haud canaliculato*, cellulis *elongatis laxiusculis* mollibus pellucidis, alaribus multis *laxe quadratis amplis* pellucidis; perich. late vaginantia, longius acuminata, laxius reticulata; theca in ped. laevi mediocri aurantiaco valido flexuoso inclinata.

*H. rutabulum* var. 5! Hook. et Wils. in Fl. Antarct. II. p. 418!

*Patria.* Insulae Falklandi, in fontaneis cespites latos sistens: J. D. Hooker.

Ab *H. plicato* simillimo notis datis longinquum.

**266. H. plicatum** Schleich. (Cent. IV. n. 27.); *dioicum*; caulis procumbens elongatus, vage ramosus, ramis *elongatis iterum divisis vel brevibus simplicibus crassiuscule teretibus* apice subcurvatis luteo-viridibus subpinnatus; folia caulina erecto-conferta subsecunda, late lanceolato-acuminata longiuscula, *stricta*, *longitudinaliter valde plicata*, dorso *laevia*, margine ubique revoluto, apice

obsolete denticulato, nervo ultra medium evanido canaliculato, cellulis mollioribus brevibus densis pellucidis, alaribus multo paucioribus *regulariter quadratis pellucidis vix incrassatis* parvulis; perich. breviora subintegerrima, basi laxius reticulata; theca in ped. purpureo *breviusculo breviter arcuato - oblonga nitido - badia*, operc. conico *brevi*; perist. d. ext. angustiores aurantiaci, int. latiusculi flavidi subhiantes breviores, ciliis singulis brevibus albidis.

*H. Stereodon plicatus* Brid. II. p. 636. — *H. Moretii* Garovagl. fide De Notaris.

*Patria.* Ad saxa praecipue calcarea alpium totius Helvetiae, ubi in monte La Varaz detexit Schleicher. In Jura tractu legit W. P. Sch.; in „Heiligenbluter Tauern“ Carinthiae: Funk; in alpibus Bavariae: Sendtner; Italia, in sylvis montanis provinciae Novariensis et in m. Baldo: De Notaris, in montibus ad Larium: Garovaglio; in Pyrenaeis ad saxa praecipue granitica: Spruce. — *Aprili, Majo.*

Caract. laudatis ab *H. rugoso* haud dissimili distinctissimum et primo momento *Hypni glareosi* formam maximam referens.

Infloresc. ignota.

267. *H. conostomum* Tayl. (Lond. Journ. of bot. 1848. p. 194.); dioicum? caulis decumbens, ramis erectis divisis subcomplanatis albide viridibus *nitidis crassioribus* folia caulina arcte imbricata arctiuscula, e basi cordato-ovata *valde concavâ longe tenuiter acuminata, tenuius serrulata*, margine reflexa, siccitate distincte humore minus plicata, nervo *brevi*; perichaetium *angustius*; theca in ped. laevi ramos haud superante leniter incurva cylindrica, operc. conico; perist. d. int. imperforati, ciliis binis interpositis. †.

*Patria.* Monte Pichincha Andium Quitensium: W. Jameson, Majo 1847.

Ab *H. lacto* Brid. ex auctoris ratione characteribus expositis differt.

268. **H. Kamounense** Harvey (in Hook. Ic. Pl. Rar. t. 24. f. 10.); caulis longe repens vage pinnatus, ramis simplicibus curvatis assurgentibus *teretiusculis* subatenuatis *robustiusculis*, *virentibus*, *inferne fuscescentibus*; folia caulina conferta, late ovata longe acuminata, concava, plicata, *acumine tenui plano flexuoso*, nervo lato brevi, margine serrulato; perich. longius acuminata recta, similia; theca in ped. longiusculo valido laevi rutilante subinclinata *turgide ovato-oblonga*, operculo *conico mammillato*; perist. robusti d. interni hiantes flavidi, ciliis *ternis* interjectis. †.

Cum diagnosi in Lond. Journ. of bot. 1840. p. 19. — Schwägr. Suppl. IV. t. 323!

*Patria.* India orientalis, Kamoun: Wallich.

Ex ic. *H. plumoso* affine, characteribus laudatis tamen sat distinctum videtur.

#### Species incerta.

1. **H. Weinmanni** Nees ab Es. (in litt. ad Weinmann!); caulis repens ramosus, ramis erectis subsimplicibus teretibus ut plurimum ad unum latus spectantibus confertis inaequalibus; folia caulina imbricata erecto-patula ovato-acuminata integerrima enervia, concava, margine apicem versus involuto, elongate areolata, subnitentia; perich. ext. lanceolata acuminata reflexa, int. longe crinita torta integerrima enervia; theca in ped. longiusculo solitario, inferne purpureo superne lutescente laevi subcylindracea, longiuscula incurva, lutescenti-viridis, dein fuscescens, operc. conico-rostellato recto et curvulo, apice purpurascens. †.

Weinmann in Bull. de la soc. imp. des Naturalistes de Moscou 1845. p. 477.

*Patria.* In imperio Rossico, prope Pawlowam in regione Zarskoeseliensi anno 1821 ad basin truncorum aestate legit Weinmann; in Gubernio Olonetziano: Olbers.

Hypnis plumosis laevisetis auctor adscripsit.

b. *Pedunculus scaber.*

α. Inflorescentia monoica.

**269. H. subpilosum** Hook. et Wils. (Lond. Journ. of bot. 1844. p. 553.); *monoicum*; caulis decumbens, ramis crassiusculis teretibus parce et breviter ramulosis lutescentibus subfastigiatis divisus; folia caulina dense conferta, *late ovato-lanceolata*, *acumine longiusculo flexo terminata*, pluries plicata, ubique denticulata, margine inferne latiuscule reflexo, nervo latiusculo *ultramedio*, cellulis anguste linearibus lutescentibus subpellucidis, alaribus ad alas basilares valde convexas parum impressas, majusculis rectangularibus pellucidis multis; ped. superne scabriusculus.

Fl. Antarct. II. p. 418. t. 154. f. 4.

*Patria.* Cap. Horn, in insula Eremitae: J. D. Hooker sterile legit.

*H. albicanti* vel *pilifero* simile, ab *H. populeo*, cui pedunculo affine, characteribus laudatis distat. Theca nondum observata.

**270. H. populeum** Hedw. (Sp. Musc. p. 278. t. 70.); *monoicum*; *H. filiformi* simillimum, sed folia anguste ovata, subsecunda, in acumen *longissimum* strictum sensim attenuata, densissime lineari-areolata, firma, viridissima, margine *inferne revoluta*, nervo *in cuspidem excurrente*; perich. longe anguste vaginantia, in acumen *longissimum reflexum* producta, *ubique tenuiter elongate laxe reticulata*, vix denticulata, nervo *tenuissimo* obsoleto; theca in ped. *inferne laevi*, *superne scabriusculo* subinclinata, *breviter turgide gibboso-ovalis*, intense rubra, operc. *conico acuto brevissimo*, annulo *imperfecto angusto arcte adhaerente*.

Brid. II. p. 470. — *H. saxicola* Voit. in Sturm, Deut. Fl. II. Fasc. 12. — *H. implexum* Turn. Musc. Hib. p. 173. t. 16. — *H. viride* Lam. Fl. Franç. I. p. 536! — *H. erythropodium* Brid. Sp. Musc. II. p. 281! Pedunculo elongato! — *H. polysetum* Blandow in schedis. — *H. concinnum* Hartm. Sk. Fl. Ed. 5. 1849. p. 328. e spec. auth. certe huc pertinet!



*Patria.* Per totam Europam ad arbores et saxa, rarius ad terram. — *Auctumno et hyeme.*

**271. *H. trachypodium*** C. Müll.; *monoicum*; *H. populeo* simillimum, sed rami breviores, folia anguste ovata, longe stricte tenuiter acuminata, *teneriora*, plicata, concava, margine *ubique erecto* denticulato, nervo *tenuissimo ad medium evanido*, cellulis angustissime linearibus longioribus *tenerioribus*, alaribus ad alas basilares *vix ullis paucissimis minutissime quadratis inanibus*; perich. pallidissima, *late* vaginantia, in acumen longum tenue plerumque strictum attenuata, *intima ante acumen sinuato-erosa*, *enervia*; theca in ped. *ubique scabriusculo* rubro subvalido inclinata, turgidiuscule gibboso-ovalis, *deoperculata ore valde coarctata*, rufa, dein brunnescens; operc. conico; perist. *H. populei*.

*Isothecium trachypodium* Brid. II. p. 766!

*Patria.* Carinthia, in rupibus „auf dem Heiligenbluter Tauern”: Funk 1826; in alpe Pasterze legit amicissimus Haro Bergen mense Augusti 1842.

**272. *H. rutabulum*** L. (Sp. Pl. p. 1590.); *monoicum*; cespites latissimi procumbentes mollusci pallide virides; caulis maxime vage ramosus, ramis pinnatim dispositis inaequalibus longiusculis compressiusculis laxifoliis robustiusculis curvatis attenuatis *flaccidis*; folia caulina laxè imbricata patula, *latissime ovata longiuscule acuminata magna*, biplicata, margine erecto v. basi infima tantum revoluto, *ubique denticulato*, nervo lato viridi ultra medium evanido saepius furcato, cellulis elongatis *valde pellucidis mollibus*, alaribus paucis quadratis pellucidis *parum distinctis*; perich. multa *late* vaginantia, in acumen longissimum latum attenuatum valde reflexum producta, vix denticulata, *ubique multo laxius reticulata*, *enervia*, margine superne undulata; theca in ped. longiusculo crasso purpureo *ubique maxime papilloso subhorizontalis* turgide gibboso-ovata cernua, rufa, pachydermis, *late annulata*, operc. turgide conico acuminato recto concolori; perist. robustissimi d. ext. *late lanceolati longe subulati*, inferne dense

trabeculati rubiginosi, superne serrulati pallidi granulosi, interni aequilongi robusti lati in acumen capillare granulolum attenuati, flavi laeves, valde hiantes, ciliis 2—4 albidis granulosis appendiculate nodosis interpositis longis.

Brid. II. p. 485. — Hdw. Musc. Fr. IV. p. 29. t. 12! — *H. dentatum*, vulgatissimum, operculis obtusis. Dill. Musc. p. 295. t. 38. f. 29. A! et B?

*H. rutabulum*  $\beta$ . *longisetum* Brid. II. p. 487! — *H. rut.*  $\gamma$ . *exiguum* l. c. in Hb. Brid. deest. — *H. rut.*  $\delta$ . *flaccidum* l. c.! — *H. rut.*  $\epsilon$ . *aureo-virens* l. c.! — *H. rut.*  $\zeta$ . *explanatum* l. c.! — *H. rut.*  $\eta$ . *crenulatum* l. c. vel *H. crenulatum* Sm. Engl. Bot. t. 1261 fide Hookeri.

$\beta$ . *campestre*; pedunculus parum scaber; perist. int. cilia minus appendiculata. *H. campestre* Bruch in schedis! — *H. affine* Bruch in Hb. Bridelii! — *H. geniculatum* Schleicher! e spec. auctoris.

*Patria.* Per totam Europam, ad terram, lignum putridum, saxa et rupes, vulgatissimum et polymorphum. In America septentrionali. Var.  $\beta$ . Locis siccioribus. — *Hyeme et vere.*

Ab *H. chrysostomo* characteribus laudatis distinguitur.

$\beta$ . Inflorescentia dioica.

**273. *H. chrysostomum* Rich.** (in Michaux. Fl. Amer. Bor. II. p. 319.); *dioicum*; *H. rutabulo* simillimum, sed *rigidiusculum*, ramis subcuspidatis; folia caulina multo minora, *ovato-lanceolata breviter acuminata*, *densius areolata*, *irregulariter et plerumque profunde plicata*, *acumine pro more subtorto*, *alis basilaribus ob cellulas alares laxiores distinctiores plus minus ventricose impressis decurrentibus*; perist. internum ciliis *binis interjectis*; operculum longius acuminatum.

*H. rutabulum* Drumm. Musc. Amer. No. 178! — *H. vagans* Drumm. Musc. Amer. No. 166! Pedunculo papilloso! — *H. rivulare* Bruch in schedis cum speciminibus Bridelianis flavioribus omnino convenit! — *H. flavescens* Brid. Sp. Musc. II. p. 185. — *H. rutabulum*  $\theta$ . *flavescens* Brid. II. p. 488. — *H. rutabulum*  $\iota$ . *laxifolium* Brid. II. p. 488! — *H. rutabulum*  $\lambda$ . *chrysostomum* Brid. II. p. 489.

*Patria.* Ad Muggendorf Franconiae legit Nees ab Esenbeck; prope Bipontum Bruch; praeterea per regionis montosae Germanicae partem majorem ad lapides rivulorum et rupes humidas, sed praetervisum et valde polymorphum. Ex Ångström in Gothia Sueciae. In Pyrenaeis centralibus et occidentalibus legit Spruce; Montagnes Noires: Requier; in insula Terre Neuve Americae septentrionalis La Pylaie; in Carolinae depressis humidis primus omnium legit Michaux; in locis umbrosis Canadae et in Rocky Mountains on the descent of „la grande Côte,” to the westward of the „Height of Land”: Drummond. Per Europam totam et Americam septentrionalem probabiliter distributum sit.

Ab *H. rutabulo* saepe commutato inflorescentia dioica certe distinguitur.

**274. *H. piliferum* Schreb.** (Spic. Fl. Lips. p. 91.); *dioicum*; caulis longissimus decumbens rigidiusculus maxime vage ramosus compressus, ramis pinnatim dispositis brevibus strictis simplicibus v. longis curvatis iterum pinulatis rigidiusculis subcuspidatis viridibus v. pallescentibus subsplendentibus; folia caulina laxa conferta appressa, humore patula, *latissime ovata, ex apice obtuso in acumen piliforme longiusculum producta*, plus minus plicata, concava, ubique subdenticulata, cellulis angustis densiusculis alaribus in alis basilaribus magnis ventricose impressis longe decurrentibus multis laxis quadratis pellucidis, nervo ad medium evanido, margine erecto; perich. latissime vaginantia laxa reticulata tenera, in acumen longissimum tenue reflexum sensim attenuata, subintegerrima enervia; theca in ped. elongato scabriusculo rubro valido inclinata, turgide gibboso-ovata cernua, late annulata, operc. *conico longe oblique subulato*; perist. *H. chryso-stomi*.

Brid. II. p. 489 ex parte. — Hdw. Musc. Fr. IV. p. 35. t. 14. — *H. Cassubicum* Dicks. Fasc. III. Pl. Crypt. p. 10.

*Patria.* Ad terram inter fruticeta, in sylvis aliisque locis umbrosis per totam fere Europam temperatiorem. — *Vere.*

Characteribus accuratius expositis paucis jam distinctissimum et *H. chrysostomo* vel *rutabulo* habitu simile.

**275. H. filiforme** Lam. (Fl. Franç. I. p. 535!); *dioicum*; cespites *densiusculi prostrati*; caulis *filiformis repens*, ramis *tenuibus sciuroidibus attenuatis flexuosis flavescens* vix ramulosis longioribus v. brevissimis vage ramosus; folia caulina *dense appressa plumose imbricata, humore erecto-patentia, anguste ovata, in acumen longiusculum sublatum strictum sensim attenuata*, concava, plus minus plicata, ubique subdenticulata, nervo ultramedio, margine erecto, cellulis *dense elliptico-linearibus*, alaribus ad alas basilares *vix distinctas haud decurrentes minute quadratis paucis* intus granulosis; perich. *anguste vaginantia*, in acumen longum *distincte denticulatum strictiusculum* attenuata, nervo lato ultramedio, cellulis laxioribus *firmis apice densis*; theca in ped. mediocri subvalido rubro papilloso subinclinata, minor, gibboso-ovalis, late annulata, operc. conico longe oblique subulato; perist. *H. piliferi*.

*H. Reichenbachianum* Hübner Dresd. in Regensb. bot. Zeit. 1847. No. 41, c. tab. — *H. velutinoides* Bruch in schedulis! — *H. Flotowianum* Sendtner in schedis! — *H. piliferum*  $\beta$ . *filiforme* Brid. II. p. 491.

*Patria.* In sylvis ad arbores, Parisiis: Thuiller in Hb. Lamarck. et Bridel.. In Delphinatu: Dejean 1800 in Hb. Bridel.. In Hassia superiore legit Bruch in schisto argillaceo; in Hercyniae valle Bodethal dicta: Hampe; in Saxonia: Hübner; ad Sattler prope Hirschberg Silesiae: Flotow. Probabiliter per totam Europam mediam atque australiorem occurrens.

*H. populeo* simillimum, sed operculo longirostro obliquo primo adspectu distinctum. Ab *H. pilifero*, quocum Bridel conjunxit, notis laudatis longe diversum est.

**276. H. lutescens** Huds. (Fl. Angl. p. 421.); *dioicum*; cespites latissimi prostrati, lutescentes, inferne sordidi; caulis longissimus multoties divisus, ramis confertis attenuatis *strictis longiusculis crassioribus*; folia *H. seri-*

*cei*, sed caulina multo latiora et perichaetialia multo latiora et teneriora; theca *inclinata cernuo-oblonga* fusca anguste annulata, operc. conico brevius oblique acuminato; perist. d. *interni valde hiantes laeves*, ciliis *longis* singulis vel binis interpositis.

Brid. II. p. 466. — Hedw. Musc. Fr. IV. p. 40. t. 16. — *H. Cassubicum* Scop. Fl. Carn. ed. 2. n. 1327. — *Isothecium lutescens* Spruce in Musc. Pyr. Exs. No. 88. — *Climacium lutescens* Voit. Musc. Herbip. p. 79. — *Neckera lutescens* Willd. Prodr. Fl. Ber. n. 939. — *Leskea longifolia* Ehrh. Cr. Exs. n. 281. — *Hypnum sericeum*, surculis longioribus et teretioribus, capsulis incurvis. Dill. Musc. p. 325. t. 42. f. 60.

*Patria.* Per totam Europam temperatiorem vulgare, et in America septentrionali atque Asia boreali, in terra argillacea, calcarea et ad radices arborum: *Hyeme et vere.*

Ab *H. sericeo* notis cursive impressis longe differt.

**277. *H. aurescens* C. Müll.; *dioicum*; *H. sericeo* simillimum, folia caulina *leviter biplicata*, margine *magis reflexo* ubique *integerrimo*, cellulis alaribus *creberrimis teneris laxius quadratis* pellucidis; perich. *flaccidissima*, *haud plicata enervia*; theca *inclinata cernuo oblonga macrostoma*, *dein nigrescens*, operc. *turgide cupulato mammillato recto*; *peristomium H. lutescentis.***

Brid. II. p. 469. — *Isothecium aureum* Spruce Ann. and Mag. of Nat. Hist. 1849. Musc. Pyren. No. 85. — *H. aureum* Lagasca in Ann. de Cienc. Nat. No. 14. Nomen illo Lamarckiano junius.

*Patria.* In Hispania detexit Lagasca; nuperius in Pyrenaeis copiose legerunt W. P. Schimper in Sierra Morena et Spruce in rupibus prope locum Espingo zonae inferalpinae. In Sardiniae australioris collibus: Morris, De Notaris, in monte Genargentu: Comba; in Italia ipsa: Bridel.

**278. *H. crassinervium* Tayl. (in Mackay. Fl. Hib. II. p. 43.); *dioicum*; cespites densiusculi lati viridissimi procumbentes; caulis repens, ramis subscendentibus teretiusculis rectis v. curvulis, *humore turgidis*; folia caulina laxe conferta, *haud vel vix secunda*, late ovata, *latiuscule breviter acuminata, substriata, cavitate ante***

*acumen abrupta profunda*, margine vix convexo, infima basi parum revoluta, superne subserrulato; nervo *latissimo*, cum cavitate folii abrupto, superne constanter *inaequaliter furcato*, cellulis viridissimis chlorophyllosis rhomboideo-ellipticis, alaribus ad alas paulisper decurrentes pellucide quadratis; perich. anguste vaginantia longiuscule stricte acuminata, vix denticulata, maxime obsoletinervia, laxissime pellucide reticulata; theca in ped. mediocri purpureo *ubique valde tuberculoso* inclinata subturgide oblonga gibbosa, ore subcoarctata, late annulata, operc. conico *longe aciculari obliquo*; perist. *H. Vaucheri*.

Wilson in Engl. Bot. Suppl. t. 270 b.

*Patria.* Ad rupes calcareas Hiberniae prope Cork detexit Taylor 1820, praeterea ad Mucruss circa Killarney: W. Wilson, ad Demkerron vulgare: Taylor; in Pyrenaeis centralibus: Spruce et W. P. Schimper m. Augusti; in Vogeso et Jura: W. P. Sch.; in tractu Taunus Germaniae occidentalis: Bayrhofer; in Istria: Sendtner ad Moshieniza m. Aprilis fertile legit.

Ob vestigia exposita sp. distinctissima, ex operculo *H. piliferum* et *filiforme* spectans, sed foliorum structura primo momento distinguenda.

**279. H. Vaucheri** Lesq. (Enum. Musc. Helvet.); *dioicum*; cespites latissimi prostrati sericeo-lutescentes; caulis repens, *ramis ascendentibus*, apice longius attenuato decurvo saepius radicantibus, ramulis fasciculatis tenuibus curvulis, attenuatis; folia caulina dense plumose imbricata, vix secunda, late ovata, in acumen elongatum strictum subpiliforme sensim attenuata, concava subplicata, margine inferne revoluta, ubique subdenticulato, nervo dimidiato, cellulis breviusculis subpellucidis, alaribus ad alas revolutas decurrentes laxius quadratis subpellucidis; perich. e basi late vaginante laxe reticulata enervi pellucidâ longissime reflexe acuminata, ad acumen sinuata, subdenticulata; theca in ped. mediocri valido rubro, inferne scabriusculo, superne *valde tuberculoso* inclinata turgide *gibboso-oblonga*, ore *coarctata*, annulata,

operc. conico *acuminato*; perist. d. ext. rubiginosi integri, int. flavi angusti valde hiantes laeves, ciliis binis tenerimis longis nodosis albis.

*Patria.* Regione montosa et subalpina plerumque in saxis calcareis; prope Fleurier Helvetiae Neocomiensis: Lesquereux; in alpibus Julicis, Sadenza: Sendtner Aug. 1841 cum fruct. maturis; Bayerbrunn prope Monachium: Sendtner; in Pyrenaeis centralibus solo calcareo et in imis truncis saxisque graniticis: Spruce hyeme fertile legit.

Characteribus expositis facile discernibile.

Subsectio IV. **Illecebrina.** Caulis *decumbens illecebrinus vage ramosus turgidus plus minus julaceo-teres*; folia estriata.

a. *Folia cochleariformia.*

280. **H. cochlearifolium** Schw. (Suppl. I. II. p. 221. t. 88.); caulis repens decumbens et subinde radiculosus *tenuis*, ramis subpinnatis *subsimplicibus* ascendentibus *ad apices quandoque radicantibus* flavide viridibus nitidis *teretibus acutiusculis turgidis, obtusis*; folia caulina *dense conferta*, e basi vix auriculata et vix excavata latissime rotundato-ovata, apice acutiusculo, marginibus superne distincte involutaccis, subcochleariformi-concava, obsoletinervia, cellulis incrassatis scariosis; perich. exserta multo minora anguste convolutacea breviter acuminata, inferiora minima ovata acutiuscula; theca in ped. tenui breviusculo anguste cylindrica parva recta, inclinato pedunculo subhorizontalis; perist. parvum, dentes ext. angusti, int. breves parum perforati, ciliis singulis interpositis.

*Isothecium flexile* Brid. II. p. 361 partim. — *H. flexile* Hook. Musc. Exot. t. 110! non Swartz!

*Patria.* Australasia: La Billardiere; Nova Seelandia, Dusky-Bay: Menzies; insulae Aucklandi et Campbelli antarcticae, usque ad altitud. 1400 pedum: J. D. Hooker.

281. **H. auriculatum** Mont. (in Voy. au pôle Sud, Crypt. p. 331. t. 20. f. 3.); ramus inordinate ramosus, ra-

mis elongatis *obtusè cuspidatis teretiusculis* pallide viridibus nitidis laxifoliis; folia *e basi maxime auriculata, cellulis alaribus in orbem magnum ventricosum complicatum dispositis magnis laxis albidis praedita vix excavata, subrotundato - ovata latissima, obtusissima integerrima*, marginibus erectis, subcymbiformia, pallide viridia, *latitudine longitudinem subaequantia*, nervo obsoleto brevi furcato saepe carente.

*Patria.* In freto Magellanico leg. Jacquinet.

Notis designatis pulcherrima species.

282. **H. chlamydophyllum** Hook. et Wils. (Lond. Journ. of bot. 1844. p. 552.); caulis sesquiuncialis vage ramosus turgidus, ramis uncialibus, ad apices ob folia arcte convoluta *cuspidatis simplicibus turgidis*; folia caulina imbricata patentia, e basi *subquadrata dilatate truncata*, cellulis *alaribus laxis praedita*, auriculatâ cochleariformi-rotundata obtusissima, valde concava, integerrima, pallide luteo-viridia subscariosa pellucida splendentia, nervo simplici infra medium evanido v. nervis duobus brevibus, cellulis anguste oblongis; perich. erecta; theca in ped. *elongato gracili laevi rubro torto cernua v. horizontalis, ovato-oblonga angusta brunnescens, operc. brevi conico*; perist. luteum.  $\frac{1}{4}$ .

Cum ic. in Fl. Antaret. I. p. 139. t. 61.

*Patria.* Insula Campbelli, ad terram: J. D. Hooker.

Ex auct. ab *H. cochlearifolio* characteribus laudatis differt; *H. auriculatum* foliis basi lobate ventricose auriculatis recedit.

283. **H. concinnum** Wils. (Lond. Journ. of bot. 1848. p. 277. t. 10!); dioicum? caulis repens, ramis remotis erectis brevibus subincurvis clavato-teretibus julaceis turgidis; folia caulina dense appressa, rotunda cochleariformi-concava, *subapiculata*, basi *angustiore* margine reflexa decurrentia, nervo *dimidiato tenui*, crenulata, nitentia, cellulis *laxioribus*; perich. lanceolato-acuminata.  $\frac{1}{4}$ .

*Patria.* China, ad muros vetustos insulae Chusan: T. Anderson 1845.



Ex obs. auctoris *H. obtusifolio* Hook. in Drumm. Musc. Amer. No. 193. simillimum, sed foliis supra descriptis differre dicitur.

b. *Folia ovata.*

284. **H. Boscii** Schw. (Suppl. I. II. p. 223.); *dioicum*; caulis vage ramosus, ramis *turgide julaceis simpliciusculis mollibus viridibus, dein versicoloribus inaequalibus*; folia caulina madefacta et sicca dense conferta, e basi *majuscule et undulate auriculata*, cellulis alaribus *in orbem parvulum subventricosum dispositis incrassatis flavidulis* praedita vix excavatâ latissime ovata, acuminata profunde concava, marginibus haud involutaceis *denticulatis, nervis binis saepe in unicum longum tenuem conflatis*; perich. exserta, multo angustiora, acuminibus longis reflexis; theca in ped. flexuoso crasso purpureo laevi cylindrica cernua inclinata, operculo conico rostrato; perist. majusculum.

Brid. II. p. 430. — *H. illecebrum* Hdw. Sp. Musc. p. 252. t. 66. f. 1. 2. — *H. illecebrum*  $\beta$ . *Americanum* Brid. Sp. Musc. II. p. 126. — *H. tumidiusculum* Lamarck e spec. auth.! — *H. cupressiforme*, rotundius, vel *illecebrae aemulum*. Dill. Musc. p. 311. tab. 40. f. 46. C.

*Patria.* Per Americam septentrionalem frequens, sed rarius fertile.

Ab *H. cochlearifolio* notis laudatis, ab *H. illecebro* pedunculo laevi jam differt.

285. **H. Berthelotianum** Mont. (Hist. d. Iles Canaries, p. 4. t. 1. f. 2.); caulis prostratus elongatus vage ramosus, ramis elongatis teretibus, ramulis inaequalibus subjulaceo-teretibus pinnatim dispositis breviusculis erectis robustis *apice obtusis aureo-nitentibus subsimplicibus*; folia caulina subjulaceo-imbricata, e basi semiamplexicauli parum auriculatâ *late ovato-lanceolata caviuscula, subdenticulata, acumine lato flexuoso longo hic illic undulato-constricto, siccitate torto, grossius inaequaliter dentato*, margine erecto, nervis binis subobsoletis pallidis, cellulis brevibus subellipticis submollibus virentibus, ala-

ribus auriculae *vix ullis quadratis pellucidis minutis*; perich. confertissima, late vaginantia longe acuminata, acumine recto reflexo v. semel torto, ubique subdenticulata, basi laxe pellucide reticulata, nervis obsoletis v. longis in unum conflatis; theca in ped. brevi valido purpureo laevi tortili horizontalis *magna turgide oblonga* exannulata, operc. *perfecte conico recte breviter acuminato*; perist. magni d. ext. rufescentes parum cristati, int. aequilongi flavidi valde hiantes, ciliis singulis brevioribus albidis.

*Hypnum Hochstetteri* Schimp. in Seubert. Fl. Azorica, p. 14 huc forsitan pertineat.

*Patria.* Ad corticem arborum in sylva Agua Garcia insulae Teneriffae: Webb; in insulis Azoricis: Hochstetter.

286. **H. illecebrum** L. (Sp. Pl. p. 1594.); *dioicum*; cespites late procumbentes e viridi lutescentes v. aurescentes; caulis vage ramosus, ramis illecebris teretibus turgidis *incurviusculis*, saepius subpinnatim dispositis; folia caulina dense conferta, humore patula, e basi parum impressa *oblongo-ovata breviter subreflexe acuminata*, concava, margine erecto denticulato, nervo unico ultra medium producto, cellulis angustissime linearibus lutescentibus, alaribus parvulis pellucide quadratis; perich. e basi longe angusta vaginante, laxe pellucide reticulata concava in acumen reflexum longum tenue attenuata, subintegerima; theca in ped. longiusculo aurantiaco ubique valde papilloso inclinata, parva subgibbose ovalis, operculata subventricose turgida ore contracta brunnescens, late annulata, operc. conico apiculato; perist. d. ext. rufescentes, int. pallidi subpunctulati hiantes, ciliis binis valde appendiculatis longis albis teneris.

Brid. II. p. 428. — *H. blandum* Lyell in Hook. et Tayl. Musc. Brit. Ed. II. p. 176. Suppl. t. 5. — *H. Vaillantii* Thuill. ex Bridel. — *H. Touretii* Brid. II. p. 429! — *H. crassum* La Tourette in Hb. Bridelii! — *H. cupressiforme*, rotundius, vel illecebrae aemulum. Dill. Musc. p. 311. t. 40. f. 46. A. B.

*Patria.* In Germaniae occidentalis monte Taunus haud frequens legit Bayrhofer; in pascuis herbidis

Italiae superioris et mediae raro, frequentius in Italia australi et insulis adjacentibus; inde per Helvetiam australem ad Galliam transiens, ubi circa Lutetiam primus legit Vaillant, usque ad Pyrenaeos occidentales, ubi Spruce observavit; praeterea in Anglia australi, ubi in Hampshire loco Cadnam Lane, New Forest detexit Lyell. In Algeria insulisque Canariensibus indicavit Montagne. E planitie ad zonam montosam, nunquam in montes editiores ascendens. — *Aestate.*

Ab *H. cirrhoso* notaculis datis differt; praeterea pedunculo scaberrimo facile discernibile.

**287. *H. cirrhosum* Schw.** (in Schultz. Reise auf den Glockner II. p. 365.); *dioicum*; *H. illecebro* simillimum, sed rami *stricti* turgidiores, folia latiora, *obtusa*, *ex apice obtuso in pilum longiusculum reflexum producta.*

Brid. II. p. 495 excl. speciminibus in insula Melville lectis, forsan ad *H. glareosum* pertinentibus! — *H. turgidum* Hartm. Sk. Fl. Ed. V. p. 328.

*Patria.* In summis alpibus Carinthiae, ubi in alpe Brennkogl detexit Schwägrichen, Tirolis, Salisburgiae, Bavariae et Helvetiae; in Herjedalia Sueciae collegit Thedenius.

Fructus nulli visus. Ab *H. illecebro* certe distare videtur.

**288. *H. aureo-nitens* Hook.** (in Schw. Suppl. III. I. 1. t. 221.); *monoicum*; *caulis longissimus lycopodioido-decumbens turgidus*, ramis *elongatis crassissimis brevibus simplicibus vel elongatis parce divisis aurescentibus nitidis*; folia caulina dense imbricata appressa, humore erecto-patula, *e basi ob alas subconniventes coarctata angustiore auriculatâ latissime ovata, acumine latissimo sinuato-undulato longe tenuiter subulato terminata, concava, estriata, nervo tenuissimo ad acumen producto, margine erecto vix conspicue crenulato, cellulis brevibus densis angustis conflatis lutescentibus, alaribus paucis polygonatis parvis diaphanis*; perich. longissime acuminata;

theca in ped. brevi rubro laevi subinclinata anguste cylindrico-oblonga breviuscula badia; perist. d. ext. robusti rufescentes, int. flavi subpertusi, ciliis ternis longis articulatis albis.

*Patria.* Nepal Indiae.

*H. illecebrosus* v. *cirrhosus* habitu aliquando simile, vestigiis laudatis optime distinguendum. Fructus nobis non visus.

Subsectio V. **Cuspidaria.** Caulis *erectus vel assurgens, ramis turgidis cuspidatis.*

A. *Cellulae alares quadratae.*

a. *Folia uninervia.*

289. **H. stramineum** Dicks. (Fasc. II. Pl. Crypt. p. 6. t. 1. f. 9.); *dioicum*; cespites latissimi *laxissimi proceri straminei nitidi*; caulis erectus *filiformis teretiusculus laxe julaceus flaccidus, obtuse cuspidatus, ramis paucis distantibus erecto-patentibus obtuse cuspidatis subpinnatus*; folia caulina *ovato-oblonga ligulato-obtusa, subcymbiformi-concava, leviter plicata, margine erecto integerrimo*, nervo latiusculo infra apicem dissoluto, cellulis angustissimis densissimis pallide luteis, apice brevioribus incrassatis, alaribus multis laxissimis pellucidis ventricoso-impressis; perich. ubique laxe reticulata pellucida, apice breviter acuminato et sinuato-dentato; theca in ped. elongato flexuoso aurantiaco laevi subcylindrica arcuato-cernua aurantiaca inclinata exannulata, operc. conico acuto brevi; perist. d. ext. flavidi dense trabeculati, int. albidii, haud vel vix hiantes, 1 — 2 interjectis.

*Hypnum Stereodon stramineus* Brid. II. p. 568. — *H. obtusum* Vill. Pl. Dauph. III. n. 912.

*Patria.* In paludibus profundis plerumque sphagnosis graminosis totius Europae borealis et temperationis atque Americae septentrionalis (e Canada usque ad Rocky Mountains) usque ad regiones polares. In ericetis paludosis Angliae Dickson primus detexit. — *Aestate*, sed rarissime fructificans.

**290. H. purum** L. (Sp. Pl. p. 1594.); *dioicum*; *H. Schreberi* simillimum, sed robustius turgidius, ramis saepe elongatis et iterum ramulosis; folia caulina *late ovata*, apice in acumen brevissimum *acutum* subcrenulatum attenuata, nervo *unico*, *interdum furcato*, *inferne lato*, *ad medium producto*, cellulis alaribus minoribus paucioribus *pellucidis albidis*; perich. superne denticulata; theca annulata robustior; perist. d. ext. *vix cristati*, interni *angusti haud serrulati, sed veluti geniculati*.

Brid. II. p. 425. — Hdw. Sp. Musc. p. 253. t. 66. f. 3 — 6. — *H. elegans* Ehrh. Crypt. Exs. n. 242. — *H. cupressiforme*, vulgare, foliis obtusis. Dill. Musc. p. 309. t. 40. f. 45.

*β. illecebrum*; caule procumbente vage ramoso, ramis inordinatis teretibus obtusis. Brid. II. p. 427. — *H. illecebrum* Brid. Musc. Rec. II. II. p. 91 et al.

*Patria.* In locis iisdem *H. Schreberi* plerumque associati. — *Vere*, rarius fructificans.

**291. H. cordifolium** Hdw. (Musc. Fr. IV. p. 97. t. 37.); *dioicum*; cespites *elati mollissimi lati amoene laete virides*; caulis assurgens flaccidus elongatus *inferne ramis brevibus paucis subpinnatus*, parte superiore plus minus elongata *simplicissima laxa vel remote foliosa*, *subcuspidata*; folia caulina magna, sicca erecta, *humore patentissima remota*, e basi dilatata inferne parum coarctatâ *oblongo-ligulata planiuscula v. marginibus involutis integerrimis*, nervo *latiusculo viridi ad apicem evanido*, cellulis elongatis angustissimis viridibus, apice summo minutis incrassatis, alaribus multis magnis *laxis pellucidioribus* parum ventricose impressis subdecurrentibus; perich. *late vaginate lanceolato-acuminata* laxius reticulata nervosa; theca in ped. elongato aurantiaco laevi *tenui flexuoso horizontalis* cylindracea arcuata, exannulata, operc. conico acuto; perist. *H. straminei*, interni dentes subrugulosi, ciliis longis **2—3** interpositis.

*Hypnum Stereodon cordifolius* Brid. II. p. 565. — *H. cuspidatum β. bicolor* Turn. Musc. Hib. p. 176. — *H. phyllorrhizans* P. B. Prodr. p. 67. — *H. fontanum* Schleich. Crypt. Helv. Exs. Cent. Cent. n. 53. — *H. crassum* Schumach. Pl. Saeland. II. p. 80?

*β. compactum*; compacte cespitosum, ramulis permultis brevissimis valde pinnulatum, folia late cordato-ligulata obtusa planiuscula, parva, cellulis minutis incrassatis, alaribus maximis amoene pellucidis et ventricose impressis. *H. cordifolium* Drumm. Musc. Amer. No. 209.

*Patria.* In locis graminosis aquosis per totam fere Europam rarius et in America septentrionali. Prope Upsaliam Swartz primus legit. — *Vere.* Rarissime fructificans.

*H. cuspidato* proximum.

292. *H. sarmentosum* Wahlenb. (Fl. Lapp. p. 380.); *dioicum*; caulis *prostratus* elongatus ramosus *purpurascens* cuspidatus, ramis brevibus incurvis acutis *e viridi-purpurascentibus* pinnatus, rigidiusculus; folia caulina laxo erecto-conferta *longiuscule oblongo-ligulata, acumine brevissimo acuto introrsum inflexo terminata*, cymbiformi-concava v. plus minus planiuscula, integerrima, nervo *purpurascente* ante apicem evanido, cellulis anguste linearibus densissimis elongatis *purpurascentibus*, alaribus multis laxis *pellucidis teneris magnis dein incrassatis aureis planiusculis*; perich. longe vaginanti-acuminata, ubique tenerrime elongate laxo pellucide reticulata nervosa integerrima; theca exannulata et ped. *H. trifarii*; perist. d. ext. longi lati lutei, latere diaphani, int. in membr. altiuscula flaviuscula *lati haud hiantes, latere non limbati*, ciliis binis longis appendiculatis.

*H. trifarium β. sarmentosum* Rabenh. Deutschl. Crypt. II. p. 290. — *H. Stereodon stellatus ε. Terrae Novae* Brid. II. p. 603.

*Patria.* In rupibus Lapponiae alpinis, ubi aqua nivialis defluit, detexit Wahlenberg, dein Hübener in Dovrefjeld Norvegiae fertile legit; in summis Sudetis in „der weissen Wiese“ et „am grossen Teiche“: Nees ab Esenbeck 1831; in Tirolis ad Roskogel: Sendtner. Specimina tantum Norvegica fertilia vidimus. Insula Terre Neuve Canadae: La Pylaie.

Ab *H. cuspidato* haud dissimili colore purpurascente et foliis uninerviis primo momento distinguitur, ab *H. trifario* notis cursive impressis longe recedit.

**293. *H. trifarium*** Web. et Mohr. (Schwed. Reise, p. 177. t. 2. f. 2. a—d.); *dioicum*; caulis longissimus *julaceus teres turgidiusculus, inferne fuscus, superne laete viridis* splendens, ramis paucissimis *julaceis, basi filiformibus apicem versus crescentibus subclavatis apice cuspidatis* longiusculis divisus; folia caulina *dense appressa, rotundato-ovata, cochleariformi-concava, haud plicata*, margine erecto integerrimo, nervo tenuiore brevioribus, cellulis arctioribus brevioribus fuscis v. viridibus, alaribus multis *sublaxis pachydermibus viridibus*, parum ventricose impressis; perich. externa minuta, caetera late vaginantia oblonga breviter acuminata plicata *integerrima*; theca, pedunculus et perist. externum *H. straminei*, perist. interni d. flaviores *margine tenuissime limbati maxime hiantes*, in membrana magis et robustius reticulata positi, ciliis 2—3 interjectis.

*Hypnum Stereodon trifarius* Brid. II. p. 567. — *H. stramineum* β. foliis latioribus. Schw. Suppl. I. II. p. 212. t. 89. — *H. illecebrum* Schultz. Fl. Starg. p. 318. excl. Syn. Brid. *H. uliginosum*. — *H. uliginosum* Schleich. Cent. III. n. 54?

*Patria.* In paludibus profundissimis totius Europae borealis et temperatioris, praesertim in planitiibus turfosis Germaniae septentrionalis, usque in alpes ascendens atque in America septentrionali, ubique autem rarissime fructificans. — *Aestate.*

Ob vestigia laudata cum *H. stramineo* proximo nunquam conjungendum, pulcherrimum.

**294. *H. nitens*** Schreb. (Spic. Fl. Lips. p. 92.); *dioicum*; cespites altiusculi lati laxi *rigidi aureo-nitentes*; caulis erectus rigidus *subpungens durus*, ramis approximatis *subcompressis pungentibus rigidis duris subpatientibus* curviusculis, foliorum imbricatione *veluti plumosis*; folia caulina sicca et humore erecto-patientia *strictissima, e basi rotundatâ longiuscule late lanceolato-acuminata*

*maxime longitudinaliter plicata, integerrima, margine basi reflexo, nervo unico ultra medium evanido, cellulis angustissimis densissimis pallidis veluti striatula, cellulis alaribus vix ullis pellucidis minutissimis praedita; perich. caulinis simillima, longiora, basi laxius reticulata; theca, pedunculus, operculum H. straminei; annulus latus; perist. d. ext. lati lutei, latere hyalini subdenticulati, int. flavidi hiantes haud limbati, ciliis binis longis rugulosis albidis subappendiculatis.*

*H. Stereodon nitens* Brid. II. p. 562. — *H. cuspidatum* Hdw. Sp. Musc. p. 354. et al. — *H. palustre erectum trichodes*, ramulis crebris, luteo et rufo-virentibus glabris. Dill. Musc. p. 303. t. 39. f. 37! haud p. 300. t. 39. f. 34, ut Bridelius citat.

*Patria.* In pratis uliginosis spongiosis totius Europae atque Americae septentrionalis et in Asia sept., usque in zonam alpinam et arcticam, sed rarius et parce fertile. — *Aestate.*

Ab *H. cuspidato*, saepe commutato notis cursive impressis toto coelo differt, et cum *H. rufescente* simillimo foliis uninerviis et peristomio jam discrepat.

b. *Folia binervia.*

c. *Nervi deplanati.*

**295. H. nitidum** C. Müll.; *dioicum?* caulis elongatus teres tenuis mollis, apice e foliis convolutis cuspidatus, ramis longiusculis subsimplicibus teretibus dichotome divisus, e lutescenti-viridis sericeo-nitidus; folia caulina dense appressa, *ovato-oblonga acuminata, acumine vix tertiam partem folii aequante, concava, subconvoluta, integerrima, nervis binis brevissimis, cellulis elongatis angustissimis; perich. longiora subsquarrosa; theca in ped. longiusculo tortili gracili rubro suberecta cylindracea vix arcuata, interdum subcernua, basi attenuata, brunnea, annulo operculo adhaerente, operc. conico oblique rostellato breviusculo; perist. d. ext. lutei, int. angusti carinati. †.*

*Leskea nitida* Hook. et Wils. Lond. Journ. of bot. 1844. p. 551. — Cum ic. in Fl. Antarct. II. p. 416. t. 154. f. 6.



*Patria.* Staaten-Land: Menzies 1787 fertile legit; insula Eremitae ad Cap. Horn: J. D. Hooker sterile invenit.

Ab *H. stramineo* simillimo characteribus explicatis toto coelo recedit. Cilia peristomii interni interposita probabiliter rudimentaria auctores neglexerunt. Ab *H. extenuato* (*H. crinito* H. et W.!), cui auctores peraffine declaraverunt, ex ic. et descr. longissime diversum est.

**296. *H. cuspidatum* L.** (Sp. Pl. p. 1595.); *dioicum*; cespites elati *rigidissimi* lati *pallide* virides; caulis assurgens *rigidus* longiusculus *dense foliosus pungens*, ramis *creberrimis plus minus cuspidatis maxime pinnatus*; folia caulina *laxe erecta, late oblongo-lanceolata* planiuscula v. plus minus involuta, integerrima, *nervis binis brevibus*, cellulis *H. cordifolii*, alaribus multis laxis pellucidis ventricosis contractis; perich. late lanceolata, *longissime acuminata valde vaginantia et plicata tenuiter reticulata pallide membranacea enervia*; theca in ped. elongato rufo laevi *crasso rigido erectiuscula v. subhorizontalis turgide gibboso-cylindracea* arcuata, *late annulata*, operc. conico acuto subobliquo; perist. d. ext. longissimi latissimi lutei, dense trabeculati, latere superne distincte pellucide serrulati, int. in membrana *altissima flavida valde reticulata, subhiantes, latere inferne tenuissime limbati, superne denticulati, ciliis tribus longissimis appendiculatis* albidis.

*Hypnum Stereodon cuspidatus* Brid. II. p. 562. — *H. palustre* extremitatibus cuspidatis et pungentibus. Dill. Musc. p. 300, t. 39, f. 34.

*H. heterophyllum* Hüb. Musc. Germ. p. 633 e spec. authent., ab eo accepto, cum descriptione autem minus connivens omnino huc pertinet. — *H. flexile* Brid. II. p. 417; forma aquatica flaccidissima nervis obsoletissimis.

*Patria.* In locis palustribus per totam Europam, Americam septentrionalem et in Asia septentrionali, usque in zonas polares, vulgatissimum. — *Vere et aestate.*

Notis cursive impressis ab *H. cordifolio* longissime refugit.

297. **H. Schreberi** Willd. (Prodr. Fl. Berol. n. 955.); *dioicum*; cespites lati laxi altiusculi pallide virides; caulibus elongatus erectus rigidus subcuspidatus, ramis *patentibus attenuatis curvatis compressiusculis* pallide viridibus pinnatus; folia caulina *appressa, e basi angustâ elliptica, in acumen brevissimum ligulato-obtusum crenulatum producta*, integerrima, *cymbiformi-concava, marginibus superne plus minus involuto-conniventibus basi reflexis*, nervis binis breviusculis flavidis, cellulis elongatis angustissimis densis, alaribus multis laxis *planiusculis fuscis*; perich. externa reflexa parva, interna vaginantia longe lateque lanceolato-acuminata integerrima pallidissima nervia laevia longius et laxius reticulata; theca in ped. longo rigido crasso purpureo laevi horizontalis arcuato-oblonga fusca exannulata, operc. conico acuto; perist. d. ext. longi lati lutei, *latere maxime cristati*, dense trabeculati, int. in membr. alta flaviuscula lati *hiantes*, latere superne serrulati, ciliis 2—3 longis albidis appendiculatis.

Brid. II. p. 420. — *H. compressum* Schreb. Spic. Fl. Lips. p. 96. — *H. muticum* Sw. Musc. Suec. p. 60. — *H. purum*  $\beta$ , Ehrh. Huds. With. — *H. parietinum* L. Fl. Suec. n. 1020. — *H. cuspidatum*  $\beta$ . *inerme* Weis. Crypt. Goett. p. 253. — *H. inerme* Schrank. Prim. Fl. Salisb. n. 845. — *H. cupressiforme* tenuius et compressum. Dill. Musc. p. 312. t. 40. f. 47.

*Hypnum Curlandicum* Brid. Mant. Musc. p. 160. seu *H. Schreberi*  $\beta$ . *Curlandicum* Brid. II. p. 421. ramis densioribus et foliis minoribus vix variat.

*Patria.* In locis umbrosis praesertim ericetis sylvestribus per totam Europam et Americam septentrionalem. — *Hyeme et vere.*

Notis cursive impressis ab *H. cuspidato* longe recedit et *H. puro* simillimum.

298. **H. rufescens** Dicks. (Fasc. III. Pl. Crypt. p. 9. t. 8. f. 1.); *dioicum*; procerum erectum plus minus dichotome ramosum *robustum* rigidum substrictum, e viridifuscens aureo-nitidum, late laxo cespitosum, parum compressum; folia caulina rigide erecto-patentia laxo conferta, e basi rotundato-concava late lanceolata, acumine

*elongato* acuto senectute canescente terminata, integerrima, plus minus carinate plicata, margine ubique fere valde revoluta, nervis deplanatis tenuibus breviusculis haud callosis laevibus, cellulis *elongatis angustissimis rectis* pallide viridibus v. fuscescentibus, basi semper fuscis, alaribus vix ullis; perichaetia *turgida*, folia caulinis minora, late ovata, acumine elongato flexuoso terminata, subdenticulata, enervia, margine erecto, cellulis ubique fuscis v. brunnescentibus plus minus conflatis laxioribus; theca in ped. elongato purpureo laevi *erecta* cylindrica, annulata, fuscidula, operc. conico *oblique acuminato v. rostrato* aurantiaco; perist. d. elongati late lanceolati subulati carinati, inferne dense trabeculati lutescentes, linea media tenuissima exarati, superne articulati pallidiores, int. aequilongi angusti carinati subulati, *subrugulosi*, imperforati albidi, in membrana brevi positi, ciliis 2—3 *rudimentariis* interjectis.

*Isothecium rufescens* Hüb. Musc. Germ. p. 600. — *Leskea rufescens* Schw. Suppl. I. II. p. 178. t. 86. — Brid. II. p. 284. — Hypnum caulibus vix ramosis, foliis subulatis aristatis, capsulis gracilibus. Hall. Hist. St. Helv. n. 1784.

*Patria.* In alpibus totius Europae, ubi loca frigida irrorata habitat et *aestate* fructificat.

Ab *H. aureo* proximo vestigiis illustratis longe recedit.

**299. H. chryseon** Schw. (Schult. Reise auf den Glockner II. p. 364.); dioicum; procerum *gracile subsimplex* plerumque lutescens; folia caulina *appressa, multo breviora, latius lanceolata breviter et reflexiuscule vel oblique acuminata* stricta, cellulis *magis serpentino-flexuosis, igitur striatulis* pallidis, alaribus ad basis infimae concavae marginem involutum fuscum vix ullis; perichaetia *angustissima*, foliis in acumen tenuissimum filiforme productis, angustioribus; theca *suberecta minor*, operculo conico *obtuso*; perist. *brevius* et angustius, dentes ext. *rugulosi*, int. *laeves breviores*, ciliis internis interpositis *tenuissimis longiusculis tenerrimis* binis.

*Isothecium chryseum* Spruce in Musc. Pyr. No. 90. Ann. and Mag. of Nat. Hist. 1849. — *Isothecium rufescens*  $\beta$ . *chryseum* Hüb. Musc. Germ. p. 601. — *Leskea rufescens*  $\beta$ . *chrysea* Brid. II. p. 286. — *Leskea chrysea* Hoppe et Hsch.; Brid. l. c.

*Patria.* In alpe Pasterze Carinthiae superioris in rupibus nivalibus: Hornschuch; in Austria inferiore fide Schwägricheni; in Pyrenaeis occid. et central. ad rupes humidas, in fissuris: Spruce, e zona subalpina usque ad medialpinam ascendit; Rocky Mountains, ad rupes humidas: Drummond No. 221.

Notis laudatis ab *H. rufescente* distinctum.

$\beta$ . Nervi callosi.

300. *H. aureum* Lam. (Encycl. Meth. Bot. III. p. 172.); dioicum; robustum fastigiatum ramosum, dicranoideum luteo-fuscum nitidum, ramis apice cuspidatis ascendentibus breviusculis erecto-patentibus; folia caulina erecto imbricata, humore maxime patentia, elongata, subsecunda, longissime late lanceolata acuminata, parum falcata, pluries distincte longitudinaliter plicata, margine erecto vel parum reflexo planiusculo, ubique denticulato, nervis longissimis parallelis tenuibus flavidulis distincte conspicuis, dorso calloso-prominentibus, superne dentatis, apice spinae forma abruptis, cellulis angustissimis incrassatis serpentinis elongatis fuscidulis, basi infima fuscis, alaribus paucis brunneis veluti obsoletis; perichaetia turgida, foliis late vaginantibus longissime acuminatis flexuosis, basi laxissime reticulatis aureis v. brunnescentibus, vix plicatis enervibus; theca in ped. elongato purpureo erecta breviter cylindracea fusca; perist. d. ext. linea media diaphana latiuscula exarati, late lanceolati subulati, interni in membrana lutescente ciliaeformes.

*Dicranum Novae Hollandiae* Hsch. in Sieber. Musc. Exs. No. 7; in patria certe false indicata. — *Leskea congesta* Brid. II. p. 323. excl. Syn. Swartz. — *L. striata* Schw. Suppl. I. II. p. 180. t. 86. — Brid. II. p. 334. — *H. phryxophyllum* Arn. — *Mnium aureum* P. B. Prodr. p. 74.

*Patria.* Insulae Antillarum, ubi in monte sulphurifero insulae Guadeloupe primus legit Richard.

Ex habitu *Dicrano scopario* haud dissimile.

B. *Cellulae alares vesiculaeformes.*

a. *Folia acuminata.*

301. *H. pungens* Hdw. (Sp. Musc. p. 237. t. 60.); *hermaphroditum*; cespites laxe cohaerentes; repens, ramis erectis longiusculis *patentifoliis*, apice subcuspidatis, flexuosis crassiusculis *stramineo-viridibus subsecundis nitidulis* irregulariter breviuscule subpinnatis; folia caulina *subhorizontalia laxe imbricata, e basi coarctata brevissima reflexa, cellulis alaribus introrsum impressis subventricosis maximis hyalinis v. flavidis praedita subauriculatâ dilatate lanceolato-acuminata, acutiuscula, margine plus minus involutaceo integerrimo, summo apice involuto parum denticulato v. integra*, nervis obsoletis, cellulis pallidis basi flavidis; perich. paucissima late vaginantia breviter acuminata, sub apice solo involutacea, superne denticulata, basi laxius reticulata flavida; thecae in pedunculis *inter cespitem occultis brevibus*, tenuibus purpureis *superne subpapillosis erectae minute urceolato-ovales*, badiae, exannulatae, *ore truncatulo aequali v. constricto*, operc. conico longe aciculari flexuoso aurantiaco; perist. d. ext. breves angusti, *linea media latiuscule diaphana valde exarati subrufi*, int. aequilongi angustissimi vix perforati flaviusculi, ciliis *singulis rudimentariis v. nullis* interpositis.

*Leskea pungens* Sw. Fl. Ind. Occ. III. p. 1806. — Brid. II. p. 291. — *Leskea patens* Hsch. Fl. Bras. I. p. 72! forma minor, haud rare occurrens.

*Patria.* Ad radices arborum in sylvis humidis montosis Jamaicae primus legit Swartz; Surinam, ad truncos fruticum planitierum arenosarum prope Joden-Savanna, rarius: Kegel, Nov. 1845; insula Antillarum Trinidad, monte Tocuche: Crüger mensibus Januarii, Martii, Jul. et Dec. 1847, in societate *Syrrhopodontis lycopodioidis*, *Mniadelphi aurati* et al. muscorum; Venezuela, prov. Carabobo, Cumbre de Valence, alt. 5000', 1846 Ja-

nuario: Funck et Schlim in Coll. Linden. No. 619; Brasilia, in Minis Generalibus: de Martius.

Flores in eodem caule numerosi eparaphysati.

302. **H. hermaphroditum** C. Müll.; *hermaphroditum*; *H. pungenti* simile, sed rami apice erecto cuspidato brevi, densifolii; folia caulina brevia, patentia quidem, sed tamen dense approximata et igitur caulem subjulaceum efficientia, latissime ovato-lanceolata convoluta, acumine brevissimo subcrenulato, cellulis et foliis perichæatialibus *H. pungentis*; theca in ped. longiusculo superne lamelloso-verrucoso purpureo erecta v. vix inclinata parvula elliptica atro-badia, exannulata, operculo concolori longe flexuose aciculari; perist. *H. pungentis*.

*Leskea straminea* Hsch. et Reinw. in Nov. Act. Acad. Caes. Leop. XIV. II. Suppl. p. 718. ex parte!

*Patria.* In monte Klabat in regno Menado insulae Celebes: Reinwardt.

303. **H. luxurians** Dz. et Molkb. (Ann. d. sc. nat. 1844. 2. p. 307.); *dioicum*; caulis repens subpinnatim ramosus, ramis brevibus ascendentibus compressis pallide viridibus; folia caulina erecto patentia in series indistinctas rectas disposita, late oblonga concava, in acumen basi constrictum latiusculum longiusculum serrulatum producta, dorso tenerrime papillosa, margine recto, sub acumen interdum parum convexo, ubique fere denticulato, nervis obsoletis, cellulis longiusculis subconflatis pallidissimis, basi flavidis, alaribus magnis 3—5 pellucidis; perich. e basi breviuscula late vaginante longius acuminata valde serrata, basi laxius reticulata; theca horizontalis v. nutans, oblongo-cylindrica, operc. convexo-conico subulato.

*Patria.* Java, Sumatra.

Ab *H. Bruchii* proximo et simillimo ob vestigia explicata differt.

304. **H. Bruchii** Dz. et Molkb. (Ann. d. sc. nat. 1844. 2. p. 306.); *dioicum?* *procumbens* ramosum, ramis dense congestis erectis subsimplicibus curvatis compressiusculis

parum cuspidatis rigidis pallide viridibus; folia *in series sex rectas disposita*, lateralia patentia, superiora erecto-appressa, *late oblonga ligulato-lanceolata*, tenerrime papillata, cymbiformi-concava, dorso margine erecto, *sub apice utrinque convexo, apice summo planiusculo crenulato*, nervis obsoletis, cellulis grossiuscule ellipticis pallidis, basi aureis, alaribus magnis aureis c. quinis longiusculis; perich. erecta oblonga *cuspidato-acuminata, acumine longo serrato*; theca *horizontalis oblongo-cylindrica foveolata*, operc. conico-rostrato curvato.

*Patria.* Sumatra: Korthals.

Fructum non vidimus. — Notis illustratis habitu proprio et *H. hermaphrodito* haud dissimile.

**305. *H. strepsiphyllum* Mont.** (Lond. Journ. of bot. 1844. III. p. 632.); *dioicum; H. pungenti* simillimum, sed *gracilius et fuscidulo-viride rigidissimum*; folia caulina *maxime patentia laxius imbricata*, basi latiora semel vel bis contorta; perich. robustiora; theca in ped. *longissimo apice curvato longior cylindraco-oblonga, basi latiore, sub ore angustiore* parum coarctata badia, operc. conico-depresso oblique rostrato; perist. d. ext. latiores longiores, *intus latere valde cristati, int. lati*, ciliis *binis tenerrimis longiusculis*.

*Hypnum strepsiphyllum* Mont. Ann. d. sc. nat. 1845. 4. p. 91.

*Patria.* Java, in cortice arborum prov. Buitenzorg: Hb. Miquel.

Flores in eodem caule paucissimi.

**306. *H. procerum* C. Müll.;** *maxime elongatum erectum robustissimum, ramis longis simplicibus flexuosis subcuspidatis remotis subpinnatum*, pallide stramineum; folia caulina laxe imbricata valde patula v. patentia, *maxima, latissime ovata, breviter acuminata*, margine erecto, apice parum involutaceo, nervis obsoletis, cellulis grossis longiusculis, parietibus inferne et superne furcatis, pallidis basi aureis, alaribus maximis septenis aureis ventricosis.

*Hypnum tanytrichum* Dub. (haud Montagne!) in Moritzi Syst. Verz. d. Zolling. Pfl. p. 130!

*Patria.* Java: Zollinger No. 1737 ex parte.

*Hypno cuspidato* v. *cordifolio* simile. Sub No. 1737 coll. Zolling. plantae duae diversae (*H. procerum* et *tanytrichum*) editae sunt.

307. *H. hyalinum* Reinw. (in Schw. Suppl. III. I. 2. t. 227.); *dioicum!* *H. pungenti* simillimum, procerum et ramis longioribus; folia caulina *multo latiora robustiora obtusiuscula*; theca in ped. *longissimo* flexuoso crassiore *major*; perist. d. int. *late* lanceolati, ciliis *subaequilongis* singulis.

*Patria.* Java, monte Gédé: Reinwardt, dein Junghuhn.

308. *H. Gedeianum* C. Müll.; *dioicum!* *H. hermaphrodito* simillimum, sed longius ramosius, *foliis irregulariter imbricatis horridum*; folia caulina *magis erecto-patentia, longiora, acumine longiusculo terminata*; pedunculus *H. hermaphroditi*, theca *longior oblongo-cylindracea, sicca horizontalis*.

*Leskea straminea* Reinw. et Hsch. in Nov. Act. Acad. Caes. Leop. XIV. II. Suppl. p. 717. t. 40; ex parte.

*Patria.* Java, monte Gédé: Reinwardt; ex Hb. Gottscheano habemus.

309. *H. turgidum* Dz. et Molkb. (Ann. d. sc. nat. 1844. 2. p. 309.); *dioicum*; *longiusculum*; *foliis densissime appressis veluti funiforme turgescens submolle lutescens* nitidum, inferne nigricans, ramis fastigiatis inaequalibus *parum uncinata et brevissime cuspidatis*; folia caulina *madefacta patula erecto-conferta, late ovata, acumine breviusculo acuto terminata, integerrima, margine plus minus involutacea, cellulis pallidissimis subconflatis, alaribus quaternis v. quinis aureis auriculatis, haud ventricosus* magnis, flavidis; perich. *erecta late vaginantia et subito fere longius acuminata, superne croso dentata,*



basi laxe flavide reticulata; theca in ped. arcuato nutans ovato-oblonga, operc. conico-rostrato, rostro subulato curvato.

*Patria.* Sederatœ insulae Javae, Sumatra, Borneo: Hb. Lugd. Batav.

Ab *H. procero* statura multo humiliore et characteribus celebratis differt. Fructum non vidimus.

b. *Folia pilifera.*

**310. *H. tanytrichum*** Mont. (Ann. d. sc. nat. 1845. 4. p. 88.); *dioicum*; caulis *longissimus* semipedalis et longior, prostratus, foliis *subjulaceo-imbricatis teretiusculus gracilis*, ramis longis iterum ramulosis, ramulis flexuosis curvatis gracilibus fuscidulo-stramineis nitidis v. robustioribus cuspidatis; folia caulina erecto-conferta, e basi angustatâ obovato-rotundata concava, apice e sinistra ad dextram subtorte involuto et in pilum tenue flexuosum longum producto, subintegerrima, margine erecto, nervis obsoletis, cellulis elongatis pallidis basi flavidis, alaribus inferioribus 3—4 parvulis, sed amplis turgide prominentibus amoene flavidis, superioribus nonnullis paucis longis pellucidis; perich. longe et late vaginantia acuminata v. pilifera denticulata, basi longe laxe et badio-areolata; theca in ped. *longissimo* purpureo valido laevi in sporangium sensim incrassato horizontalis longiuscule anguste cylindracea subclavata, medio constricta; perist. d. ext. flavidi, medio leviter exarati, lutei, int. aequilongi pertusi flavidi, ciliis singulis pyramidatis.

*Patria.* Java: Zollinger No. 1737.

E distinctissimis. Theca exannulata videtur; operculum ignotum.

**311. *H. extenuatum*** Brid. (II. p. 484.); *dioicum?* caulis prostratus appressus flexuosus crassiusculus densifolius, in cuspidem subflagelliformem tenuiorem productus, lutescens; rami brevissimi patentifolii, in flagella tenuissime filiformia brevia teretia glauca multa aggregata strictiuscula fragilia dissoluti; folia caulina erecto-paten-

tia laxe conferta, e basi late truncata brevissime reflexâ late ovato-lanceolata, in acumen piliforme tenue subrectum producta, membranacea, planiuscula, subintegerrima, margine erecto, nervis obsoletis, cellulis angustissime linearibus conflatis pallidissimis, basi flavidis, alaribus superioribus paucissimis pellucidis subincrassatis minutis, inferioribus magnis vesiculaeformibus ventricose impressis hyalinis v. flavescentibus; folia ramorum flagelliformium minute lanceolata concava superne denticulata; theca in ped. laevi subovato cernuo, conico-operculata.

*H. crinitum* Hook. et Wils. Lond. Journ. of bot. 1844. p. 555! forma foliis apice magis obtusis et inde piliferis. — *H. glaucescens* Hsch. in Musc. Sieber.!

*Patria.* Nova Hollandia: Labillardiere primus legit, dein Sieber. In terra Van Diemen fertile legit J. D. Hooker.

Ab *H. denso* proximo characteribus explicatis facile distinguitur. Fructum nondum vidimus.

#### Incertae sedis.

**312. *H. Esmeraldicum* C. Müll.;** caulis subimplexus procumbens tenellus, ramis abbreviatis bilinearibus erectis subcomplanatis; folia caulina laxe imbricata patentia, flavide viridia, sicca nitentia, ovalia apiculata integerrima obsoletinervia; perich. stricta erecta longius acuminata appressa substriata; theca in ped. brevi sed pro ramis abbreviatis elongato biunciali erecta v. inaequalis erectiuscula subapophysata, operc. convexo longius rostrato; perist. d. int. pertusi, ciliis singulis brevibus interpositis. †.

*Hypnum microcladon* Tayl. (non Dz. et Molkb.) Lond. Journ. of bot. 1846. p. 64.

*Patria.* Ad truncos arborum in sylvis prope Esmeraldos Andium Quitensium: Prof. W. Jameson 1827 in Hb. Grevill.

Ex animadv. *Wilsoni* (l. c. p. 453.) *H. hyalino* affine.

Subsectio VI. **Plumularia.** *Plantae tenellae, plumulose foliosae*; rami assurgentes teneri; folia angusta elongate areolata laevia.

A. *Cellulae alares quadratae.*

a. *Pedunculus laevis.*

α. *Theca erecta.*

**313. H. longirostratum** C. Müll.; *monoicum*; caulis repens, ramis perpusillis parce divisis erectis pallide lutescentibus teneris homomallophyllis; folia caulina secunda, e basi angustiore brevissima, cellulis alaribus utrinque binis majusculis flavidis praedita *anguste ovato-acuminata strictiuscula* v. *curvula*, cymbiformi-cava, enervia, integerrima, cellulis elongatis angustis pallidis; perich. *pauca minuta late obovata vaginantia serrulata, acumine brevi angusto denticulato terminata*, laxius reticulata subcolorata; theca in ped. breviusculo rubro laevi *erecta minute ovalis*; operc. *cupulato longe suboblique aciculari*; perist. *H. tenelli*.

*Leskea longirostris* Brid. II. p. 311.

*Patria.* Insula Porto Ricco, ad arborum corticem; Bertero.

Characteribus laudatis facile cognoscendum. *H. tenello* simile.

**314. H. microtheca** C. Müll.; (Linn. XXI. p. 199.); *monoicum*; *tenellum pusillum*; cespites *latissimi subcompacte conferti, deplanati, pallide virides nitiduli, mollissimi*; caulis repens, *intricato-ramosus*, ramis brevibus flexuosis *gracillimis*; folia caulina *plumose imbricata, erecto-patentia, saepius subsecunda, e basi angustata brevissimâ angustissime oblongo-acuminata, stricta, cymbiformi-concava*, subintegerrima, margine ubique erecto, cellulis elongatis pellucidis, alaribus *quadratis amoene pellucidis paucis mollibus laxiusculis*, nervis binis obsoletis brevissimis; perich. *perpauca patula minora, teneriora, caulinis similia, sed laxius reticulata enervia*; theca in ped. *tenerrimo flavido laevi breviusculo erecta, angustissime cylindracea, amoene aurantiaca, ore brunnea, te-*

*nella*, operc. conico subulato subobliquo; perist. parvi d. rufescentes angustissimi, int. angustiores flavissimi solidi articulati, ciliis singulis tenerrimis brevibus pallidioribus interjectis.

*Patria.* Surinam: Kegel ad truncos arborum prope Paramáribo, m. Febr. fructibus maturis; in insula Trinidad ad La Ventille et Savanna copiose legit Crüger.

Species ex characteribus explicatis distinctissima atque pulcherrima, nulla alia confundenda, e theca angustissime cylindrica erecta tenella et statura gracillima primo visu cognoscenda, *Neckerae (Pterogonio) pulchellae* habitu quam maxime similis.

315. II. *Sendtnerianum* C. Müll.; *monoicum*; caulis repens, ramis filiformibus decumbentibus vel assurgentibus tenerioribus flexuosis apice parum curvatis homomallophyllis pallescenti-viridibus sericeis; folia caulina *plumulose* imbricata, secunda, anguste ovato-acuminata parum falcata, margine *ubique erecto subintegerrimo*, nervis binis obsoletis brevissimis, cellulis angustissime linearibus densis virescentibus, alaribus *vix ullis*; perich. perpauca dense appressa, e basi *breviter* vaginante ovata *tenera* pallidissima laxè reticulata *superne denticulata enervi* breviter et *tenerrime acuminata integerrima, minutissima*; theca in ped. rubro elongato laevi tenero erecta v. suberecta minuta *vix cernua ovalis* pallida, dein fusca, annulata, operc. conico brevissimo obliquo; perist. d. ext. angusti pallide lutei, int. *albidi* pertusi *laeves*, ciliis *singulis fugacissimis* brevibus.

*Leskea Sendtneriana* Schimp. in litt. ad Sendtner! — *L. laeta* Schimp. in schedis! — *Hypnum pulchellum* Funk in schedis! et Drumm. Musc. Amer. No. 167!

*Patria.* In Sudetis „an den Moraquellen im Mährischen Gesenke“ 1839 legit Sendtner, dein in alpibus Julicis, in alpibus Bavaricis Algoviae ad Linkerskopf elev. 7500 pedum et ad locum „kleiner Rappenkopf (?)“ alt. 6997 pedum, denique ad Karwendl ad locum „Kirchle“ dictum elev. 6800' mensibus Julii, Augusti et Septembris;

in alpihus Carinthiae pr. Heiligenblut: Funk; in rupibus ad flumen quoddam inter montes Rocky Mountains Americae septentrionalis: Drummond.

Ab *H. pallescente* proximo et simili characteribus illustratis facile distinguitur. Ab *H. pulchello* caule haud disticho jam primo aspectu differt.

**316. H. irroratum** C. Müll.; dioicum; laxe cespitosum *subhumile gracillimum, sterile subsimplex myosuroideum, attenuatum, fertile ramis brevibus remotis patentibus paucis superne pinnatum*, viridissimum sordidum nitidulum, dein rufescens; folia caulina imbricata, sicca parum patentia, *angustissime lanceolata, acumine elongato tenuissimo acuto substricto terminata*, integerrima, *parum plicata, margine erecto v. paullo revoluta*, nervis *brevissimis obsoletis*, cellulis elongatis angustissimis pallescenti-viridibus *strictis*, basi parum flavidulis; perich. caulinis similia, longissime acuminata; theca in ped. longiusculo flexuoso purpureo erecta, cylindraceo-oblonga brevis purpurascens, perist. *H. chrysei*.

*Leskea irrorata* Sendtn. in litt. — *L. chrysea* Sendtn. in litt. — *L. polyantha*  $\beta$ . *sericeola* Brid. II. p. 313!

*Patria.* In alpihus Bavaricis Algoviae, ad Flachskahr in rup. calcareis, alt. 6400', in „Seealpe am Eibsee im bayerischen Oberlande“, in Sudetis „im Riesengrunde“ et „am Peterstein im Mährischen Gesenke“: Sendtner; in monte Jura legit primus omnium Roger; in valle „Martellthal“ Tirolis meridionalis: Funk; in Flora Monacensi, ubi in rupium fissuris irroratis societate *Leptotrichi flexicaulis, Hypni rufescentis*, locis iisdem fructificantis, et *Barbulae paludosae* haud rarum, sed rarissime fertile legit Gattinger. — Vere.

Ab *H. chryseo* vestigiis cursive impressis longe refugit.

**317. H. Schlagintweitii** Sendtn. (in schedulis); dioicum; *H. irrorato* simillimum, sed *mollissimum*, ramis subsimplicibus perfecte myosuroideis *compressis* sordide viridibus *laxifoliis flexuosis*; folia caulina *laxe imbricata*

*patentia*, nervis *distinctioribus*; theca in ped. valde tortili *erectiuscula cernuo-cylindracea pallide fusca* parvula, operc. turgide conico *rectiusculo*; perist. d. ext. *latiuscule lanceolati*, dense *trabeculati*, *plani*, pallide *lutei* latere paulisper *pallidiores*, int. *aequilongi anguste subulati* *albid* *carinati integri laeves*, ciliis *binis aequilongis tenuissimis*.

*Patria.* Carinthia, „kalte Quellen beim Pasterzensee“, alt. c. 8100', ubi die 30. Augusti 1848 leg. fratres Schlagintweit.

β. *Theca inclinata.*

318. *H. tenellum* Dicks. (Crypt. Fasc. IV. t. 11. f. 12.); *monoicum*; cespites depressi *latissimi mollissimi tenelli intricati velutino-virides*; *caulis repens*, ramis *assurgentibus teneris flexuosis apice subcurvatis* brevibus *divisis*; *folia caulina parum secunda plumulose imbricata tenera*, *anguste lanceolato-acuminata stricta subintegerrima*, *carinata*, *margin* *erecto*, *nervo tenui viridi ad medium evanido*, *cellulis angustissime linearibus virescentibus densis*, *alaribus vix ullis*; *perich. caulinis simillima*, *vaginantia longius acuminata*; *theca in ped. brevi laevi purpureo inclinata parva turgide ovalis*, *ore subcoarctata*, *latiuscule annulata*, *operc. conico*, *oblique rostrato*; *perist. brevis angusti d. ext. lutei v. rufescentes*, *intus parum cristati*, *interni flavi laeves parum perforati*, *ciliis aequilongis albidis singulis laevibus flaccidis teneris*.

*H. Stereodon Algirianus* Brid. II. p. 592. — *H. Algirianum* Desf. Hb.; nomen antiquissimum quidem, sed ante illud Dicksonianum non editum ideoque delendum! — *H. exiguum* Blandow in Fasc. Crypt. II. No. 98! — *Pterigynandrum Algirianum* P. B. Prodr. p. 86.

*Patria.* Ad rupes, saxa, muros et truncos arborum antiquarum per totam Europam temperatam, praesertim mediterraneam. In Algiriae monte Atlante Africae primus legit Desfontaines 1795; in monte Sinai Arabiae: Seetzen 1816. — *Emensi Septembris usque ad Aprilem.*

Ab *H. litoreo* proximo notis cursive impressis differt.

**319. H. venustum** De Not. (Syllab. Musc. p. 30.); *monoicum*; dense implexo-cespitosum; caulis repens vix radiculiger vage ramosus, vix nisi apice subpinnatus, tenellus pusillus, ramis remotiusculis fasciculatisve brevibus simplicibus teretiusculis, *sordide lutescentibus*; folia caulina *dense plumulose imbricata, erecto-appressa, anguste ovato-acuminata*, acumine *semel torto longiusculo flexuoso*, concava, margine erecto, *ubique distincte denticulato*, nervo tenui dimidiato carinato, cellulis elongatis *angustissimis sordide lutescentibus*, alaribus minutissime quadratis diaphanis, ad marginem parum impressum dispositis; perich. caulinis similia, magis vaginantia, latiora, enervia; theca in ped. laevi brevi cernua ovata, operc. *conico subattenuato minute mucronulato*.

*Patria.* In sylvis fagineis vallis Vegezzo provinciae Novariensis Italiae superioris, ad terram: De Notaris.

*H. velutino* foliis appressis pedunculoque laevi jam alienum; ab *H. tenello* proximo characteribus explicatis certe recedit. Fructus nobis haud visus.

**320. H. tenerum** Sw. (Fl. Ind. Occ. III. p. 1817.); *monoicum*; cespites lati deplanati *albide lutescentes sericei*; caulis repens, ramis assurgentibus *tenerrimis* filiformibus flexuosis curvatis; folia caulina plumulose imbricata secunda, tenera, anguste ovato-acuminata, integerrima, stricta, subcymbiformi-concava, margine erecto, nervis binis brevissimis obsoletissimis, cellulis angustis linearibus pellucidis pallidis, alaribus vix ullis; perich. vaginantia longe acuminata, basi laxius reticulata; theca in ped. *elongato* tenerrimo laevi rutilante stricto horizontalis *minutissime ovalis*, operculo *conico recto brevi*; perist. minuti d. ext. carnosuli, intus valde cristati, interni solidi angustissimi flavi, ciliis singulis teneris albis interjectis.

*Isothecium tenerum* Brid. II. p. 385.

*Patria.* In Antillis, ubi ad truncos arborum Jamaicae montosae legit Swartz, in Porto Ricco: Bertero.

Notis cursive impressis facile discernibile, habitu *H. incurvato* haud dissimile, sed albidum.

**321. H. intortum** P. B. (Prodr. p. 65.); *dioicum?* laxe cespitosum *tenerrimum filiforme* longe repens, ramis brevibus subregularibus *tenuissimis viridibus apice tenuissimo curvulis* pinnatum; folia caulina laxe imbricata *patientissima, minutissima vix conspicua, angustissime longe lanceolato-acuminata strictiuscula*, basi subrotundata, margine erecto superne vix denticulato, nervis brevissimis pallidis saepe inconspicuis obsoletis, cellulis elongate angustissime linearibus viridiusculis, alaribus vix ullis minutissimis quadratis; perich. caulinis similia parum latiora et longiora denticulata; theca in ped. elongato laevi purpurascente horizontalis v. nutans parvula, *pro plantulae exiguitate majuscula, breviter urceolata, ore constricta, exannulata, badia, operc. cupulato-conico acuto brevi*; perist. d. ext. flavidi, int. lutei perforati aequilongi, ciliis 1—2 tenerrimis.

Schw. Suppl. I. II. p. 270. t. 92. — *Isothecium intortum* Brid. II. p. 383.

*Patria.* In sylvis insularum Bourbonis et Franciaes cespitibus valde intorto-implexis ad terram vivit: Bory St. Vincent.

**322. H. acanthophyllum** Mont. (Ann. sc. nat. 1845. 4. p. 90.); *monoicum*; caulis intricate repens vage ramosus *tenerrimus*, ramis *capillaribus erectis simplicibus vel compositis sordide viridibus* pinnatus; folia caulina *plumose imbricata remotiuscula, patientissima*, undique inserta, minuta, *strictiuscula, anguste lanceolata acuminata, carinata, margine basi leviter reflexo, ubique denticulato, nervo dimidiato viridi tenui, cellulis angustissime linearibus virentibus, alaribus vix ullis*; perichaetia angustissima, foliis pallidissimis tenerrimis, *latiuscule vaginanti-bus breviter acuminatis rectis, enervibus, integris, basi laxe reticulatis*; theca in ped. *longiusculo tenero rubro laevi horizontalis, minute oblongo-urceolata, sicca ore constricta, operc. conico oblique longe aciculari.*

*Patria.* Ad corticem arborum reipublicae Chilensis: C. Gay.



Peristomium nobis haud visum. Characteribus laudatis facile cognoscendum.

b. Pedunculus scaber.

**323. H. litoreum** De Not. (Syllab. Musc. p. 31.); *monoicum*; *H. tenello* simillimum, sed rami firmiores parum robustiores; folia caulina longius acuminata; perich. multo minora, vaginantia enervia, ovato-acuminata serrulata pallidissima, multo teneriora; pedunculus ubique scaberrimus; perist. interni dentes rugulosi vix pertusi, ciliis binis rugulosis tenerioribus, haud flaccidis interpositis.

*H. rigidulum* Bruch in schedis!

*Patria.* In collibus ad mare prope Cagliari Sardiniae: De Notaris, qui specimina humanissime nobis donavit. Prope Bipontum Germaniae occidentalis: Bruch.

**324. H. velutinum** L. (Sp. Pl. p. 1595.); *monoicum*; cespites latissime decumbentes velutine virides v. lutescentes; caulis repens, ramis laxè plumosis flexuosis brevibus tenuibus subpinnatim vage ramosus; folia caulina laxè plumose imbricata, e basi subovata longe lanceolato-acuminata angustiuscula, carinata, margine erecto ubique denticulato, infima basi parum convexo, nervo tenui carinato ultra medium evanido, cellulis angustissime linearibus densis longiusculis virescentibus, alaribus ad basin convexam paucis minutissime quadratis chlorophyllosis; perich. latius vaginantia, longius reflexe acuminata, ante acumen emarginate dentata, ubique elongate laxè pellucide reticulata, enervia v. obsoletinervia; theca in ped. longiusculo valido rubro ubique papilloso inclinata, turgide gibboso-ovalis, late annulata, badia nitida, operc. conico brevi; perist. d. ext. angusti integri lutei, int. flavilaeves angustissimi pertusi, ciliis binis aequilongis tenerimis majuscule appendiculate nodosis albis.

Brid. II. p. 457. — Hedw. Musc. Fr. IV. p. 70. t. 27. — *H. Stereodon Starkii*  $\beta$ . *tenellus* Brid. II. p. 596! excl. spec. Megapolitanis. — *H. fontanum* Schleich. fide Bridelii. — *Leskea velutina*

Schrank. Baiers. Fl. III. p. 461. — Hypnum velutinum, capsulis ovatis cernuis. Dill. Musc. p. 326. t. 42. f. 61.

*β. intricatum*; folia subhomomalla, apice subobliqua; theca brevis turgide subglobose gibboso-ovalis. Brid. II. p. 459. — *H. intricatum* Schreb. Spic. Fl. Lips. p. 99. — Hedw. Musc. Fr. IV. p. 73. t. 28. — Brid. II. p. 461.

*γ. sericeum*; amoene lutescenti-virens, sericeum, robustius; folia caulina longiora pellucidiora; perich. longius crinita, intima ante acumen valde emarginato-erosa; theca major. Brid. II. p. 459. — *H. sericeum* Fk. Moostaschb. p. 62. tab. 44.

*δ. microcarpum*; caulis tenuior; pedunculus parum scaber; theca parva, parum inclinata et minus gibbosa. *Leskea Fendleri* Sulliv. in Mem. of the Americ. acad. of arts and Sc. IV. 1849. p. 169. t. 1! e spec. auct. procul dubio huc pertinet.

*Patria.* Per totam Europam, in sylvis ad terram umbrosam vulgatissimum. In Africa septentrionali legit Desfontaines. Var. *β.* locis iisdem. Var. *γ.* ad rupes montis Rathhausberg alpium Salisburgiae: Funk, in Pyrenaeis in Sierra Nevada prope Guéjar: W. P. Sch. Var. *δ.* New Mexico, Santa Fé in Americ. sept.: Fendler. — *Omni anni tempore.*

Ab *H. litoreo* proximo characteribus cursive impressis facile distinguitur; ab *H. tenello* pedunculo scabro jam recedit.

**325. H. Teesdalii** Sm. (Fl. Brit. III. p. 1291 et Engl. Bot. t. 202.); *monoicum*; cespites vagantes *depressi tenerrimi viridissimi*; caulis *vage ramosus, intricatus* ramis brevibus subcompressis eleganter plumose foliosis tenerrimis; folia caulina *remotiuscule* imbricata, angustissime *lanceolata* brevia, strictiuscula, concava, margine erecto superne subdenticulato, nervo viridi dimidiato vel subexcurrente, cellulis angustis densis viridibus, alaribus vix ullis; perich. *caulinis multo latiora* vaginantia enervia tenerrima ovato-acuminata brevia, laxe reticulata, *integerrima*; theca in ped. rubro brevi muriculato *horizontalis*, minute ovalis, fusca, anguste annulata, operc. conico subulato obliquo luteo; perist. d. ext. angusti rufescentes,

int. flavidi subrugulosi vix hiantes, ciliis binis albidis subrugulosis in unum conflatis.

Brid. II. p. 416. — *H. curvisetum* Brid. Sp. Musc. I. p. 111! — *H. laxo-pinnatum* Brid. II. p. 405! — *H. Schleicheri*  $\beta$ . *curvisetum* Brid. II. p. 404! — *H. Schleicheri*  $\gamma$ . *obscurum* Brid. II. p. 405! — *H. obscurum* Brid. Mant. Musc. p. 158. — *H. rutabulum*  $\iota$ . *tenerimum* Brid. II. p. 488 vel *H. rutabuloides* Brid. I. c.

*H. Teneriffae* Mont. in Hist. des Iles Canar. Crypt. p. 3. t. 3. f. 1 omnino huc pertinet!

*Patria.* In Britanniae ripis nemorosis rivulorum, prope Mallock Scotiae Teesdale detexit, prope Belfast: Templeton; prope Avenionem Galliae: Requier, ad lapides udas in Delphinatu: Dejean; ad rivulorum exsicc. lapides in Pyrenaeis centralibus locis Elysée Cottin, Labassère etc., et in Pyr. occid. circa Gélos: Spruce; in Italia, ad Romam in monte Viminali et Esquiliis ad murorum humidorum basin: Bridel. Ad terram in stillicidiis sylvae Agua Garcia insulae Teneriffae: Webb et Berthelot.

Notis cursive impressis ab *H. litoreo* proximo differt.

**326. H. Laureri** Funk (in Brid. II. p. 595 sub *Stereodonte*); caulis repens *H. tenelli*, sed folia viridissima e basi ovato-lanceolata latiore longe acuminata, acumine subrecurvo, margine inferne revoluta, apice distincte denticulato, nervo subvalido in cuspidem excurrente viridissimo, cellulis viridissimis, alaribus subventricosis pallidis, intus granulosis, minute quadratis, multis; perich. multo latiora vaginantia, longissime cuspidata reflexa, basi laxe reticulata, obsoletinervia; theca in ped. ubique scabro inclinata ovalis, operc. convexo mucronato; perist. d. interni valde hiantes, ciliis binis aequilongis pallidis interpositis teneris rugulosis strictis.

*Patria.* In Carniolia superiore prope Heiligenblut in saxis; Laurer, Funk.

Ab *H. litoreo* foliis longissime cuspidatis dentatis, perich. reflexis obsoletinervibus, areolatione foliorum aliena et perist. interno valde hiante certe differt.

327. *H. petrophilum* Weinm. (Bull. Soc. imp. d. Moscou 1845. p. 475.); caulis repens vage ramosus, ramis simplicibus erectiusculis; folia laxè imbricata erecta lanceolata longe cuspidata *integerrima* solidinervia; perich. exteriora lanceolata acuta, interiora crinita subrevoluta; theca in ped. muriculato *oblongo-subcylindræa* incurva, operc. conico. †.

Auctor Funk. Moostaschb. p. 62. t. 46. No. 46. huc citavit.

*Patria.* In imperio Rossico, in graniticis prope Gatschinam m. Augusti: Weinmann.

Ad *Hypna velutina* auctor duxit; ab *H. Laureri* notis laudatis sat distinctum videtur.

328. *H. fimbriatum* C. Müll.; *dioicum?* caulis repens pinnatim ramosus, ramis approximatis intricatis brevissimis attenuatis *teneris* dilute viridibus; folia caulina erecto-patula, *minuta, anguste oblonga, acumine longiusculo tenui subacuto pluries torto terminata, ramulina obtusiuscula, omnia profunde concava, pluries leviter plicata, pallidissima, integerrima*, nervis binis pallidissimis obsoletissimis brevissimis, cellulis angustissime linearibus conflatis, alaribus vix ullis; perich. vaginanti-lanceolata longe acuminata flexuosa, *ad acumen pulchre ciliata, plicata*, enervia; theca in ped. *superne scabro* erecto-incurva, *oblongo-cylindrica*, operc. convexo rostrato subulato obliquo, calyptra *pilosa*.

*Leskea fimbriata* Dz. et Molkb. Ann. d. sc. nat. 1844. II. p. 310.

*Patria.* Nova Guinea, Amboina.

Fructum non vidimus. E characteribus explicatis species distinctissima.

### B. *Cellulae alares vesiculæformes.*

#### a. *Pedunculus laevis.*

329. *H. subulatum* Hmp. (Ic. Musc. t. 9.); *dioicum*; laxè cespitosum repens, ramis erectis *tenerrimis remotis intertextis laxifoliis* sordide luteo-viridibus brevibus et longiusculis subsimplicibus flexuosis vage ramosum tenel-

lum pulchellum; folia caulina *remota patentissima et erecto-patentia, pro exiguitate rami longiuscula, angustissime lanceolato-subulata strictissima, ob marginem valde involutum convolutaceo-concava*, subintegerrima obsolete-nervia, cellulis pallidis angustissime linearibus brevibus basi subflavidis, alaribus *majusculis hyalinis tenerrime membranaceis basin folii breviter reflexam dilatantibus*; perich. *strictissima, late vaginantia, acuminata, ubique denticulata, basi laxe et flavide reticulata*; theca in ped. *laevi purpureo tenerrimo brevi assurgens minutissima vix conspicua angustissime obovata brevicolla, sicca urceolata ore constricta, badia leptodermis exannulata, operc. cupulato-conico longe oblique aciculari aurantiaco*; perist. *minuti d. ext. flavidi, int. subaequilongi, ciliis singulis rudimentariis.*

*Dicranum diminutum Javense* Brid. I. p. 814 huc forsan vel ad affinem speciem pertinet.

*Patria.* Manila: Meyen.

Pl. mascula floribus pluribus turgescens. *H. in-torto* habitu simile, sed vestigiis laudatis toto coelo diversum et *H. pungentis* vel *strepsiphylli* veluti diminutiva forma.

**330. H. Beyrichii** Hsch. (Fl. Bras. I. p. 81. t. 4. f. 1.); *monoicum*; rami *pusilli graciles compressi breves curvati v. recti e viridi lutescentes splendentes*; folia caulina *erecto-patula, parum secunda, e basi angustâ angustius lanceolata longe acuminata strictiuscula integerrima cava, pallidissima, margine vix reflexo, nervis brevibus distinctioribus, areolatione H. cespitosi*; perich. *angustissime lanceolata longissime filiformi-acuminata subdenticulata, subnervosa, basi infima laxius et flavide reticulata*; theca in ped. *brevi tenuissimo purpurascens laevi erecta, curvatura pedunculi leni tantum subnutans minutissime obovata tenera exannulata fuscidula, sicca ore parum coarctata, operc. cupulato aurantiaco longe oblique aciculari*; perist. minutum.

*Patria.* Brasilia, ad truncos arborum putridos prope Rio Janeiro, m. Octobris: Beyrich.

Ab *H. cespitoso* exiguitate, teneritate et characteribus laudatis longe refugit.

**331. *H. brachypelma*** C. Müll.; cespitosum *fulvum molle humile* erectum; caulis repens, ramis *tenuibus* assurgentibus *apice curvatis*; folia caulina laxiuscule imbricata, secunda, e basi angustiore anguste lanceolata, *longiuscule tenuiter flexuose acuminata*, concava, *subdenticulata*, margine *erecto*, nervis binis brevissimis flavidis obsoletis, cellulis ubique angustissime linearibus elongatis pallescentibus, alaribus turgidis majusculis vesiculaeformibus pellucidis et flavidis; perich. vaginantia, longius acuminata subdenticulata; theca in ped. *perbrevis* rubro laevi inclinata *minutissime oblonga*.

*H. microcarpum* Hook. in Wallich. Catal. No. 7657. — Ic. Pl. Rar. t. 23. f. 4. — Lond. Journ. of bot. 1840. p. 18.

*Patria.* Nepal: Wallich.

Notis cursive impressis facile discernibile.

**332. *H. Boschii*** Dz. et Molkb. (Ann. sc. nat. 1844. 4. p. 306.); *monoicum*; caulis repens *intricato-cespitosus* vage ramosus, ramis assurgentibus, superne lutescentibus inferne fuscis subnitidis *tenuibus*, *apice vix vel parum aduncis* subfasciculatis; folia caulina laxiuscule conferta, subsecunda, *madore patula*, anguste oblongo-acuminata subintegerrima concava, margine parum *inferne revoluto*, nervis binis obsoletis brevissimis, cellulis elongate anguste linearibus subpellucidis basi luteis, alaribus utrinque nervi 3 — 4 turgide vesiculaeformibus aureis; perich. *longiuscule acuminata subdenticulata*, inferne vaginantia et laxius reticulata; theca in ped. breviusculo rubro laevi nutans minute oblonga brevicolla, ore coarctata, exannulata, operc. convexo subulato-rostrato; perist. minuti d. ext. angusti lutei, int. flavidi solidi, ciliis singulis brevioribus interjectis.

*Patria.* Borneo: Korthals.

Ab *H. Hornschuchii* affini notis cursive impressis differt.

**333. H. pusillum** Hsch. (Fl. Bras. I. p. 85.); *monoicum*; caulis *exiguus tenellus* parce divisus pallide viridis; folia caulina *erecto-patentia pauca, angustissime linearilanceolata acuminata stricta cymbiformi-concava, subintegerrima*, margine *anguste revoluta*, nervis *absolute nullis*, cellulis *elongatis angustis pellucidis pallidis subflexuosis*, alaribus *utrinque binis majusculis flavis*; perich. *angustissime lanceolato-acuminata longiuscula patula pauca*; theca in ped. pro plantulae exiguitate *elongato tenerrimo laevi rutilante flexuoso horizontalis minutissime pyriformi-urceolata, ore valde contracta, operc. hemisphaerico longe rostrato rectiusculo*; perist. *minuti d. ext. angustissimi breves carnosuli, intus valde cristati, int. solidi, ciliis singulis brevioribus*.

*Patria.* Brasilia, Tijuca in vicinia Sebastianopoleos inter Jungermannias in solo turfoso: Olfers.

Vestigiis declaratis facile discernibile. *H. crassiusculo* simile.

**334. H. crassiusculum** Brid. (Spec. Musc. II. p. 242.); *monoicum*; caulis repens confertim subpinnatimque ramosus, pusillus tenellus, ramis *brevissimis strictissimis lutescentibus*; folia caulina *patentissima laxiuscula, longiuscule angustissime lanceolato-acuminata, integerrima caviuscula, vix flavide binervia, elongate angustissime areolata lutescentia, basi flavida, cellulis alaribus vesiculaeformibus flavidis oblongis*; perich. e basi *vaginante longe tenuiter acuminata recta integerrima*; theca in ped. *brevi rubro laevi subinclinata minute ovalis, operculo cupulato-conico longe oblique subulato*; perist. *H. intorti*, ciliis internis singulis longiusculis.

Schw. Suppl. I. II. p. 271. t. 91. — *Isothecium crassiusculum* Brid. II. p. 384.

*Patria.* Insula Tristan d'Acunha: Aubert du Petit Thouars.

Ab *H. intorto*, habitu simili, notis laudatis certe distinguitur.

**335. H. Hornschuchii** Hmp. (in contextu *H. subulati* in Ic. Musc. t. 9.); *monoicum*; caulis laxiuscule cespitosus subgracilis brevissime vage ramosus sordide luteus; folia caulina *parum homomalla* conferta, *anguste oblongo-lanceolata*, *stricta regularia* caviuscula, margine *erecto apice vix denticulato* v. subintegerrimo, nervis binis obsoletissimis brevibus, cellulis anguste linearibus longiusculis subpellucidis sordide lutescentibus, alaribus utrinque nervi tribus turgidiuscule vesiculaeformibus flavidis; perich. vaginantia, *breviter acuminata* laxius reticulata; theca in ped. tenuissimo rubro laevi minutissime ovalis nutans, ore contracta, exannulata, operc. conico oblique longirostro; perist. d. ext. angustissimi, int. solidi, ciliis singulis brevioribus interpositis.

*H. microcarpum* Hsch. Fl. Bras. I. p. 84. t. 4. — *Leskea ambigua* Schw. Suppl. II. II. 2. t. 198.

*Patria.* Brasilia, ad urbem Para et in ripa flum. Amazonum: Martius.

Ab *H. Beyrichii* et demisso characteribus accuratius datis certe refugit.

b. *Pedunculus scaber.*

**336. H. pycnophyllum** C. Müll.; *dioicum*; *cespites densi humiles molles* virescentes nitidi, intus flavescentes, lati; caulis repens, ramis erectis *humilibus* apice cuspidato curvatis ramulosis flexuosis *teneris*; folia caulina erecto-patentia, humore patula, e basi cellulis alaribus utrinque quaternis majusculis *teneris hyalinis dilatata* elongate anguste elliptica, apice in collum angustum contracta et in acumen longissimum gracile valde flexuosum denticulatum producta, margine erecto v. plus minus involutaceo integro, nervis obsoletis, cellulis angustissime linearibus subconflatis pallidissime viridibus, basi flavidis; perich. late longe vaginantia, multo brevius acuminata stricta, superne denticulata, basi laxius et subflavide reticulata; theca in ped. breviusculo, pro planta humili autem longiusculo, purpureo, *superne maxime papilloso* horizontalis oblonga, *basi attenuata substrumosa*, ore ma-



*jori, rugulosa badia exannulata, operc. conico longe rostrato recto; perist. valde depressi breviusculi d. ext. lutei, basi rufescentes, linea media valde exarati, int. aequilongi angustissimi flavidi pertusi, ciliis singulis brevibus.*

*Hypn. luxurians* Dub. (non Montagne) in Moritzi Verz. d. Zolling. Pfl. p. 131!

*Patria.* Java: Zollinger No. 1739.

Characteribus cursive impressis species propria, tenella, *H. pungens, hyalinum et strepsiphyllum* in minuto referens.

#### Incertae sedis.

**337. H. bicolor** Bél. (Voy. dans l'Ind. Or. Bot. II. Crypt. p. 92. t. 10. f. 2.); caulis tenellus pusillus repens divisus, ramis simplicibus brevissimis rarius parce ramulosis planiusculis adhaerentibus, ramulis confertis; folia caulina laxissime imbricata, patula, subplana alterna, lanceolato-acuminata, *enervia integerrima*, oblongo-areolata, e viridi aurescentia nitida; perich. latiora longiora vaginantia; theca in ped. tenero mediocri rubro laevi *suberecta* minute ovalis aurantiaca, operc. brevissimo convexo rubro, *apiculo rufo-brunneo terminato, igitur distincte bicolori*; perist. d. ext. ferruginei, int. flavi, ciliolati. †.

*Patria.* Insula Bourbonis, ad ped. arborum vetustarum: Bélanger.

*H. tenello* ab auctore proximum, sed characteribus supra expositis diversum declaratur.

**338. H. Mauritianum** Bél. (Voy. dans l'Ind. Or. Bot. II. Crypt. p. 93. t. 10. f. 3.); caulis tenellus pusillus repens divisus, ramis simplicibus rarius compositis, ramulis semper *erectiusculis confertis*; folia caulina recta *retroflexa, ramea laxa imbricata*, apice appressa, lanceolata, *acumine piliformi desinentia, subdenticulata enervia*; perich. *pilifera*; theca ovata fere cernua minuta. †.

*Patria.* Insula Mauritii, in arboribus montis Pouce: Bélanger.

E notis designatis quoad auctorem ab *H. bicolori* distinguitur.

**339. *H. curvirostre*** C. Müll.; cespitosum; caulis ascendens vage ramosus subrectus breviusculus gracilis; folia imbricata erecta stricta lanceolata acuta integerrima enervia, margine recurva; perich. obtusius acutata denticulata; theca inclinata parva ovata breviter pedunculata, opere longe oblique aciculari; perist. d. ext. breviter lanceolati, int. robusti solidi, ciliis rudimentariis (?). †.

*Leskea curvirostris* Harv. in Hook. Ic. Pl. Rar. t. 20. f. 1. — Cum diagnosi in Lond. Journ. of bot. 1840. p. 16.

*Patria.* Nepal: Wallich.

E icone *H. Beyrichii* simile.

#### Species incerta.

**1. *H. Wissgrillii*** Garov. (Bryol. Austr. p. 79.); caulis repens, nec filiformis nec julaceus, ramis distichis; folia undique inserta laxe imbricata, ovato-acuta vel ex ovato breviter lanceolata, enervia, rarissime subserrulata; theca in ped. vix trilineari cernua v. saltem inclinata brevis ventricosa, dimidio brevior quam operculum longe rostratum; perist. int. imperforatum. †.

*Patria.* Saxis arenariis rivulorum montosorum tenaciter adhaerens, vix extricandum, rarius ad terram nudam riparum praeruptarum, tumque haud ita eleganter distichum, in valleculis pone Neuwaldegg et circa Mauerbach Austriae inferioris, sociis *H. conferto* et *Jacquini*: Putterlick. — Ab auctumno ad ver usque.

Subsectio VII. **Capillaria.** Caulis *capillaris*, ramis *capillaribus*; folia appressa vel plumulose imbricata.

Partim ad *Rigodia* spectantes plantae.

a. *Theca erecta.*

α. Pedunculus glaber.

**340. *H. compactum*** C. Müll.; *monoicum*; cespites latissimi *compacti*, *fabronioideo-intertexti humiles et sericei*, viridescentes, inferne ferruginei radiculosi; caulis

tenellus pusillus fasciculato-ramosus, ramis brevibus tenerrimis erectis, apice subcurvulis, homomallophyllis; folia caulina laxiuscule imbricata, e basi angustissime decurrente *anguste lanceolata parum falcato-acuminata, breviuscula*, margine *erecto*, *basi distinctius superne minus denticulato*, nervo carinato viridi subtenui subexcurrente, cellulis minutis mollibus teneris virescentibus, alaribus paucissimis minute quadratis; perich. multo majora vaginantia, late lanceolata breviter subfalcatim acuminata, laxius areolata, obsoletinervia; theca in ped. elongato tenero laevi parum tortili *in collum distinctum incrassato aurantiaco erecta subclavato-oblonga tenella pulchella*, plus minus majuscula, fusca, annulata, leptodermis, operc. *breviter conico luteo, rostello brevissimo incurvo pallido*; perist. d. ext. teneri lutei dense trabeculati, int. flavidi laeves vix pertusi fragiles, ciliis singulis albis brevibus.

*Hypnum serpens v. compactum* Hook. in Drumm. Musc. Amer. No. 188.

*Patria.* America septentrionalis, ad terram locis umbrosis humidis: Drummond in locis accuratius non designatis.

Species notis expositis distinctissima et elegantissima, cum nulla alia confundenda.

**341. H. parvulum** C. Müll.; *monoicum*; late decumbens viridissimum *pusillum tenellum* vage ramulosum; folia caulina erecto-conferta, humore *patentia subsquarrosa*, e basi *anguste cordatâ ovato-lanceolata*, *planiuscule carinata*, laevia, amoene breviter pellucide reticulata viridia, nervo tenui *ultra medium evanido*, margine infima basi ad cellulas alares minute quadratas granulosas chlorophyllosas parum revoluto, *superne pseudo-denticulato*; perich. vaginantia, subreflexa, basi laxius reticulata; theca in ped. brevi rufulo laevi erecta *minute ovalis*, annulo *obscuro persistente*, operc. e basi convexa *breviter oblique rostellato*; perist. minuti d. ext. lanceolati *brevissimi irregulares latiusculi*, *linea media secedente plerumque irregulariter bifidi*, densius trabeculati, rufescentes, interni

flavidi *bifidi* aequilongi, ciliis rudimentariis singulis interpositis.

*Rhegmatodon parvulus* Hmp. Ic. Musc. 1844. t. 14, c. perist. externo! — *Clasmatodon pusillus* Hook. et Wils. Lond. Journ. of bot. 1842. p. 421. t. 25. — *Leskea parvula* Hmp. Linn. XIII. p. 46!

*Patria.* America septentrionalis ubi in locis non designatis ad arbores legit Schweinitz; prope Ebenezer ad flum. Savannah soc. *Cryphaeae heteromallae*: Beyrich; in arboribus prope New-Orleans: Drummond; in Ludovicia, Alabama, Georgia et Carolina utraque copiosissime legit Sullivan.

β. Pedunculus scaber.

**342. H. capillare** Sw. (Prodr. Fl. Ind. Occ. p. 141.); *monoicum*; caulis filiformis tener, ramis vagis *longiusculis attenuatis* capillaribus divisus, repens viridis rigidiusculus; folia caulina laxiuscule imbricata, erecto-patentia, vix secunda, latiuscule ovato-lanceolata acutiuscula, subdenticulata; carinata, nervo flavido ante apicem evanido, margine erecto, cellulis brevibus subellipticis, utriculo primordiali valde chlorophyllosis, densis, alaribus quadratis *majusculis intus valde granulosis multis*; perich. ovata angustius acuminata, tenerius reticulata, distinctius et tenerrime denticulata, obsoletinervia; theca in ped. breviusculo rubente muriculato *erecta minute ovata, junior anguste obovata, pallida*, anguste annulata, operc. conico oblique rostellato aurantiaco; perist. d. ext. breves lutei, int. angustissimi rugulosi subperforati flaviduli, in membr. flavida subgranulosa positi, ciliis singulis rudimentariis.

*Leskea capillaris* Hdw. Muse. IV. p. 25. t. 10! foliis false nervibus delineatis. — *L. minutula* Brid. Sp. Musc. II. p. 69! Br. univ. II. p. 301. — Brid. II. p. 308. — *Hypnum furcatum* Brid. Sp. Musc. II. p. 151. — *H. Portoricense* Balbis in schedis.

*Patria.* Jamaica interior, ad arbores: Swartz. Mexico, ad Misantla: Deppe et Schiede inter filices; in Hispaniola et Porto-Ricco: Bertero.

Ab *H. pumilo*, statu sterili affini, characteribus datis longe differt.

**343. H. tenuirostre** C. Müll.; *monoicum*; *H. capillari* simillimum, sed caulis fasciculatim ramosissimus viridissimus, inferne nigrescens; folia *basi margine distincte convexo-revoluta, profunde carinata, distinctius granulosa*, vix secunda; perich. *multo longius acuminata teneriora ubique pallida laevia* obsoletinervia; pedunculus minus muriculatus, operculum cupulatum turgidum longius subulatum et obtusatum; perist. d. int. *amoene flavi laevissimi* longiores magis hiantes, ciliis rudimentariis singulis.

*Helicodontium tenuirostre* Schwägr. Suppl. III. II. 2. t. 293. —  
*Leskea tenuirostris* Hook. in schedis.

*Patria.* Brasilia, Rio Janeiro: Beske; Serra dos Orgãos: G. Gardner.

**344. H. lanceolatum** Hmp. et C. Müll.; *monoicum*; *H. capillari* simillimum, sed folia *robuste lanceolato-acuminata longiora*, e cellulis *firmis, utriculo primordiali vix praeditis*, composita; perich. multo latiora et longius acuminata, *enervia, ubique tenuiter laxa et pellucide reticulata*; pedunculus minus muriculatus, operculum conicum oblique rostellatum; perist. d. int. angustissimi pallide flavidi *ubique laevissimi*, haud hiantes, ciliis singulis rudimentariis.

*Leskea lanceolata* Hmp. et C. Müll. Linn. XVIII. p. 702.

*Patria.* Prom. b. spei, in sylva primaeva ad Krakamma distr. Uitenhagen: Ecklon.

b. *Theca inclinata.*

**345. H. serpens** L. (Sp. Pl. p. 1596.); *monoicum*; cespites latissimi valde depressi viridissimi v. lutescentes; caulis tenerrimus capillaris vage ramosus, ramis tenerrimis capillaribus flexuosis subattenuatis, apice gemmaceis curvulis, laxifoliis v. densius foliosis; folia caulina laxa imbricata remota patentissima, saepius subsecunda, *e basi ovata lanceolato-cuspidata, cuspide elongato strictiusculo, caviuscula, margine erecto vix denticulato, nervo carinato pallescente v. flavescente plus minus va-*

lido ultra medium et saepius in cuspidem evanido, cellulis breviusculis amoene pellucidis laxis ampliusculis, alaribus ad infimam basin seriem unicam sistentibus laxioribus, plerumque subflavis; perich. majora vaginantia tenerrima, multo laxius reticulata, obsoletinervia; theca in ped. rubro tortili laevi elongato suberecta, elongate cylindrica longicolla siphoideo-arcuata, annulata, aurantiaca leptodermis, operc. turgide conico acuto; perist. d. ext. latiusculi rufescenti-lutei, int. flavidi vix pertusi laeves, ciliis aequilongis binis albidis laevibus.

Hdw. Musc. Fr. IV. p. 45. t. 18. — *H. Stereodon serpens* Brid. II. p. 642. — *Neckera serpens* Willd. Prodr. Fl. Berol. No. 935. — *Gymnostomum serpens* Schrank. Baiers. Fl. II. p. 439. — *H. trichodes serpens*, sedis et capsulis longis erectis. Dill. Musc. p. 329. t. 42. f. 64.

*H. contextum* Hdw. Sp. Musc. p. 278. t. 72; *H. Stereodon contextus* Brid. II. p. 645; nervo ad duas tertias paginae pertingente. — *H. spinulosum* Hdw. Sp. Musc. p. 269. t. 69; *H. Stereodon serpens*  $\delta$ . *spinulosus* Brid. II. p. 645. — *H. tenue* Schrad. Crypt. Gew. No. 81; *H. Stereodon serpens*  $\zeta$ . *tenuis* Brid. II. p. 646; foliis densius areolatis, ad cellularum parietes granulose pallide chlorophyllosis. — *H. intextum* Voit. Musc. Herbig. p. 106 et in Sturm. Deut. Fl. II. XI et Brid. II. p. 584; ex parte! — *H. capillare* Fröhl. in Hb. Bridel.; foliis obsoletinervibus. In alpibus Austriacis, Schneeberg. — *H. clavellatum* Schrank. Baiers. Fl. II. p. 431; e spec. Fröhlich. foliis magis incrassate areolatis. — *H. viride* Lam. et Dec. Fl. Franç. I. p. 536; foliis viridissimis, magis incrassate areolatis; *H. Stereodon serpens*  $\eta$ . *viridis* Brid. II. p. 647. — *H. repens* Poll. Pl. Palat. III. No. 1051. f. 11; *H. Stereodon serpens*  $\iota$ . *repens* Brid. II. p. 647; *Trichostomum repens* Schrank. Baiers. Fl. II. p. 450; *Bryum repens* Gmel. Syst. Nat. II. p. 1333. — *Pylaisaea radicans* Brid. II. p. 282 et La Pylaie in Journ. Bot. Desv. 1813. No. 5. p. 24. t. 33. f. 2 e spec. Hb. Bridel. huc pertinere videtur.

$\beta$ . *varium*; caulis multo robustior; folia e cellulis plerumque incrassatis pachydermibus composita, crassius nervosa.

*Hypnum Stereodon varius* Brid. II. p. 652; *H. varium* P. B. Prodr. p. 72; *Leskea varia* Hdw. Sp. Musc. p. 216. t. 53. — *Hypnum tenax* Hdw. Sp. Musc. p. 277. t. 72; Brid. II. p. 496. — *H. orthocladon* P. B. Prodr. p. 67; Brid. II. p. 537. — *H. inordinatum* Brid. Sp. Musc. II. p. 182; Br. univ. II. p. 483; Schw. Suppl. III. II. 2. t. 287. — *H. Stereodon radicalis* Brid. II. p. 651; *H. ra-*

*dicale* P. B. Prodr. p. 68, e spec. auctoris foliis arctius areolatis; *H. debile* Brid. Sp. Musc. II. p. 250; *H. humile* P. B. Prodr. p. 68. — *H. pachypoma* Schw. Suppl. I. II. p. 259 et Suppl. III. II. 2. tab. 287; Brid. II. p. 538.

*Patria.* Per totam Europam et Americam septentrionalem vulgatissimum, ad terram, arborum radices, saxa, lapides, ligna etc., locis humidis. — *Ex hyeme usque ad Julium.*

Species, ut synonymia ostendit, maxime polymorpha, quoad vestigia laudata tamen facile discernenda.

**346. *H. pallidirostrum*** Brid. (mst. in Br. univ. II. p. 767.); *dioicum*; cespites late prostrati tenerrimi intricati luteo-virentes; caulis tenerrimus confervoideus, ramis similibus pinnulatis vage ramosus; folia caulina *erecto-patentia* remotiuscula parvula, *lanceolata acutata, latiora*, carinato-concava, margine erecto *subdenticulato*, *nervo viridi ante apicem evanido*, cellulis parvis *laxiuscule pellucidis* et chlorophyllosis, alaribus vix distinctis quadratis paucissimis; perich. multo majora, e basi late vaginante ovata subito fere in acumen breviusculum acutatum denticulatum producta, *ubique tenuiter pellucide laxius reticulata, obsoletinervia*, ante acumen minute sinuato-dentata; theca in ped. brevi *validiusculo muriculato* rubro horizontalis *turgide globoso-ovalis, pulchre aurantiaca*; operc. oblique subulato; perist. *majoris d. ext. breves angusti rufescentes, int. flavidi tenerrime punctulati angusti parum hiantes, ciliis binis albis rugulosis.*

*H. pumilum* Wils. in Engl. Bot. Suppl. t. 2942! — *H. prae-longum* ♀, *pallidirostrum* Brid. II. p. 767!!

*Patria.* In Germania occidentali, ubi in hortis arcium prope Heidelberg et Karlsruhe ad terram in locis umbrosis, rarius ad arborum radices primus detexit Alex. Braun 1826! Anglia, in lapicidio arenario prope Warrington, ubi Wilson detexit et W. P. Sch. 1847 Februario legit, qui specimina pulcherrima humanissime nobiscum communicavit. In Pyrenaeis occ. et centr. in solo calcareo sylvarum pr. Pau, et Bagnères-de-Bigorre pl.

femineam, pr. Dax Aquitaniae in arenosis pl. masculam Spruce legit.

Ab *H. confervoide* statu sterili simillimo notis cur-sive impressis longe distans, *H. serpenti* autem e structura folii affinius. Pulcherrima species!

**347. H. confervoides** Brid. (Sp. Musc. II. p. 153.); *monoicum*; cespites late *prostrati depressi* tenerrimi sordide viridissimi v. lutescentes; caulis valde vage ramosus maxime tenerrimus confervoideus *rigidiusculus pin-natus*; folia caulina patula vel appressa remota vix subsecunda, minuta, lanceolato-acuminata, enervia, concava, integerrima, cellulis minute ellipticis laevibus, *firmis* incrassatis, alaribus vix ullis; perich. *multo majora*, late vaginantia profunde concava obsolete nervia ovato-acuminata *tenerrime denticulata* viridia, basi vel ubique pellucidius et laxius reticulata; theca in ped. brevi rubro laevi *rigido firmo horizontalis* minute ovalis, anguste annulata, fusca, *major*, operc. conico obtuso brevi; perist. d. ext. minuti lanceolati lutei, *latiores*, int. flavidi angustissimi vix hiantes laeves, ciliis singulis vel binis *distinctis* hyalinis.

*H. Stereodon confervoides* Brid. II. p. 583. — *H. Conferva* Schw. Suppl. II. I. p. 158. t. 142. — *Leskea confervoides* Spruce in Lond. Journ. of bot. IV. 1845. p. 182.

*H. byssoideum* Brid. Hb. vel *H. jungermannioides* Brid. II. p. 549!

*Patria.* In monte Calenberg prope Vindobonam: Fröhlich detexit; ad lapides inter fruticeta pr. Heiligenblut Carinthiae et Salisburgum: Funk; monte Splügen Rhaetiae W. P. Sch.; praeterea locis aliis alpestribus Helvetiae atque Austriae; ad saxa in valle Intelvi ad Larium: Garovaglio; in Germania centrali prope Naumburgum ad Salam sitam: Beneken; in Norvegia et prope Gefle Sueciae ex Ångström. In America septentrionali, ad saxa calcarea in comitatu Greenbier Virginiae leg. Sullivant. E montibus humilioribus usque ad alpes ascendit. — *Ex Augusto per hyemem.*



Ab *H. Sprucei* notis illustratis differt. Species, a Bridel descripta, folia appressa ostendit.

348. *H. subtile* Hoffm. (Deut. Fl. II. p. 70.); *monoicum*; *H. confervoidi* simillimum, sed folia caulina subsecunda minute ovata longius acuminata pellucidius areolata, enervia, vel nervo obsoletissimo brevissimo vix conspicuo, subintegerrima, valde patula, majora; perich. caulinis robustiora, latiuscule vaginanti-ovato-lanceolata, longiuscule stricte acuminata integerrima, ubique pellucide et laxius reticulata enervia v. obsoletinervia; theca in ped. longiore tenero purpurascete laevi suberecta cylindraceo-oblonga, anguste annulata, pallida, dein fusca; perist. internum ciliis singulis rudimentariis.

*Leskea subtilis* Hdw. Musc. Fr. IV. p. 23. t. 9. — Brid. II. p. 309. — *Neckera subtilis* Musc. Rec. II. II. p. 45. — *Hypnum trichodes serpens*, setis et capsulis longis erectis. Dill. Musc. p. 329. t. 42. f. 64. B. — *H. minimum*, foliis ovato-lanceolatis, capitulis erectis, operculis conicis. Hall. Hist. St. Helv. n. 1757; fide Bridelii.

*Patria.* Per totam Europam et in America septentrionali, sed, uti videtur, regionibus arcticis exclusis, ad truncos arborum praesertim zonae montosae et subalpestris, rarius ad rupes. — *Vere.*

Ab *H. Sprucei* differt: foliis caulinis laxius reticulatis, perich. multo latioribus integerrimis, theca cylindraceo-oblonga, ore aequali haud dilatato praedita, longiore et cespitibus prostratis.

349. *H. Sprucei* Bruch. (in litteris!); *dioicum!* *H. confervoidi* simillimum, sed caulis erectus mollis tenerior; folia caulina erecto-patula majora et magis acuminata, subsecunda; perich. minutissima, anguste vaginantia, longiuscule acuminata, minute spinulose denticulata; theca in ped. tenerrimo suberecta minutissime obconica brevicolle macrostoma, sicca ore lato valde coarctata; perist. minus, internum ciliis singulis rudimentariis, saepius obsoletis, fugacissimis.

*Leskea Sprucei* Bruch. in litt. et Spruce in Lond. Journ. of bot. 1845. 4. p. 180. — *Hypnum confervoides* Drumm. Musc. Amer. No. 190!

*Patria.* Anglia, ad rupes basalticas locis umbrosis „by the Tees' side below Winch Bridge": Spruce soc. *Jungermanniae trichophyllae* detexit; in Pyrenaeis occidentalibus, in rupium umbrosarum fissuris montis Lizé et vallis Béost (♀) et in Pyren. centralibus, ad Vallon de Courbettes atque Forêt de Lhieris, *Mnio serrato* intermixtum (♂): Spruce. Ad rupes umbrosas in Rocky Mountains Amer. sept.: Drummond inter *Distichium capillaceum* legit.

**350. H. incurvatum** Schrad. (Crypt. Gew. No. 80.); *monoicum*; cespites latissimi deplanati viridissimi; caulis repens, ramis *filiformibus* teneris assurgentibus flexuosis curvatis brevibus; folia caulina *valde secunda* plumulose imbricata, anguste ovato-acuminata substricta, integerima, concava, margine *erecto*, nervis binis *brevissimis viridibus* tenuibus, cellulis anguste linearibus *chlorophyllosis*, alaribus *paucis quadratis minutis granulosis*, omnibus *mollibus*; perich. late vaginantia longe reflexiuscule acuminata enervia, basi laxius reticulata; theca in ped. longiusculo purpureo laevi *inclinata parva arcuate cylindraceo-oblonga*, badia, annulata; operc. *conico acuto recto*; perist. d. ext. angustiuscule lanceolato-subulati lutei, int. angustissimi flavi laeves vix pertusi, ciliis binis albis rugulosis interpositis.

Brid. II. p. 451. — Schw. Suppl. I. II. p. 285. t. 94. — *H. leskeoides* Brid. Sp. Musc. II. p. 177. — *H. Swartzii* Brid. Sp. Musc. II. p. 178. vel *H. plumosum* Sw. Act. Holm. et *Leskea plumosa* Sw. Musc. Suec. p. 69.

*Patria.* Per totam Europam, e planitie usque ad alpes ascendens, regiones nivales et arcticas refugiens, ad lapides humidus praesertim sylvarum umbrosarum. Ex insula Terre Neuve Americae septentr. retulit La Pylaie.

Characteribus laudatis facile cognoscendum.

Sterilia tantum nota.

**351. H. tenuicaule** Spruce (Ann. and Mag. of Nat. Hist. 1849. Musc. Pyren. No. 72.); *dioicum*; pusillum molle cespitosum tenerrimum flavescens ascendens parce

ramosum, ramis subdichotomis subappressis, elongatis tenerrimis flaccidissimis; folia caulina *erecto-patentia* plumulose imbricata, angustissime lanceolata, *longe piliformi-acuminata*, concava, margine *inferne* parum *revoluto*, *superne denticulato*, nervo tenui *carinato elongato*, *rarius brevi et subfurcato*, cellulis elongatis *pellucidis*, alaribus paucis planis quadratis *pellucidis*; perich. ext. minima rotundata apiculata, int. majora, e basi ovato-lanceolatâ *capillari-acuminata*, intima parvula subulata vel *capillaria*.

*Patria.* In zona montosa Pyrenaeorum centralium, in arborum radicibus sylvae Bois de Lagaille dictae in vicinia Bagnères-de-Bigorre sociis *H. Haldaniani* et *Neckeræ repentis* legit Spruce.

*H. incurvato* simili characteribus designatis alienum. Fertile adhuc non observatum.

352. *H. Durieui* Mont. (in Fl. Alger. ined.); *H. tenuicauli* simillimum, sed parum rigidius; folia caulina *erecto-patentia*, nunquam subsecunda, e basi parum dilatata *ovato-lanceolata*, breviuscula stricta, carinata, nervo unico dimidiato, *rarius brevi furcato*, margine *ubique erecto subintegerrimo*, cellulis *brevibus angustis pallescentibus*, alaribus *vix ullis minutissime quadratis*.

*Patria.* Algeria, insula La Galité: Durieu.

Nulli fertile visum.

#### Incerta.

1. *H. viridulum* Hartm. (Skand. Fl. ed. 5. p. 324.); caules ramique breves subcapillacei molles divisi; folia late ovata, apice brevi plerumque obtuso-acutata, integerrima, concava, nervo brevi saepissime duplici; theca obovata subobliqua. †.

*Patria.* In rupibus alpestribus rarissimum, in Lapponia Lulensi, ad Sarkavare: Holmgren.

Ex animadv. auctoris *H. arctico* Sommerf. valde affine, sed multo tenuius, fere ut *H. serpens*. Cespites

densos intricatos superne viridi-nitentes, in societate *Neckerae complanatae* et *Metzgeriae furcatae*, format; folia in apicem plus minusve obtusum subito contracta; theca operculo nullo observata. Species, si revera bona, ex novo nuncupanda, quum *H. viridulum* Brid. jam longe conditum sit.

2. **H. Sibiricum** C. Müll.; caulis decumbens subramosus *gracillimus* elegantissimus, pilo multo tenuior, *dense implexus*; folia remota undique fere *horizontaliter patentia* ovato-lanceolata acuminata concava *inaequaliter elegantissime ciliato-serrata*, ciliis *horizontaliter patulis*, *enervia*, dorso *asperula s. papillosa*, *circulariter elegantissime areolata*. †.

*H. gracile* Weinm. Bull. soc. imp. de Moscou 1845. p. 492.

*Patria.* Sibiria: Hb. Acad. Sc. Petrop.

*H. hirtello* affine videtur. Auctor Hypnis serpentibus adnumeravit. Notis cursive impressis species propria bona revera videtur.

Sectio V. **Rigodium** Kze. emend. Caulis dichotome vel pinnatim ramosus, decumbens vel assurgens, *rigescens*, *firmus*, saepius inter folia caulina filis teneris in folia transeuntibus obtectus; folia *scariosa vel firma*, *plerumque tenerrime papillosa*, e cellulis *brevibus densis firmis areolata*.

Inter *Mallacodium* et *Theliphyllum* pulcherrime intermediae plantae, ab illo characteribus laudatis, ab hocce foliis haud rotundate areolatis, nec opacis, diversae, saepius tamen sedem difficillime docentes, nunc ad *Mallacodia* nunc ad *Theliphylla* magis spectantes. Cellulas alares in foliis hujusce sectionis atque sequentis vesiculaeformes hucusque nunquam sed quadratas vel vix ulla observavimus.

Subsectio I. **Drepanophyllaria.** Caulis decumbens vel ascendens, dichotome vel pinnatim ramosus, *apice ut rami uncinatus vel curvatus*; folia *falcata*, nunquam squarrulosa.

a. *Folia enervia.*

353. **H. scorpioides** L. (Sp. Pl. p. 1592.); *dioicum*; cespites lati proceri luteo-rufescentes; caulis elongatus

robustus, ramis patentibus turgidis brevibus apice curvatis remote pinnatus; folia caulina laxè appressa, secunda, *latissime ovato-oblonga obtuse acuta caviuscula integerima*, margine erecto, hic illic involutaceo, *enervia*, cellulis angustissimis densissimis viridibus basi chlorophyllosis, alaribus *ad basin infimam totam majusculis laxis tenerrimis pellucidis*; perich. erecto-appressa, late lanceolato-acuminata, valde plicata, basi laxius reticulata; theca in ped. *elongato rufescente crasso arcuato-cylindracea turgida subhorizontalis aurantiaca*, exannulata, operc. conico; perist. d. ext. robusti, int. teneri albidi hiantes subangusti, ciliis 2—3 nodosis.

*H. Stereodon scorpioides* Brid. II. p. 637. — *H. squarrosum* Timm. Prodr. Fl. Megap. p. 827. — *H. crassum* Schum. Pl. Sael. II. p. 84. — *H. fuscum* Schleich. Cent. IV. n. 24. — *H. scorpioides*, palustre, magnum, lycopodii instar sparsum. Dill. Musc. p. 290. t. 37. f. 25.

*Patria.* In locis profunde turfosis per totam fere Europam, e planitie in alpes ascendens, usque ad Lapponiam et in America septentrionali. — *Aestate*, sed rarius fructificans.

Notis laudatis propria species.

b. *Folia uninervia.*

c. *Nervi excurrentes.*

**354. H. filicinum** L. (Sp. Pl. p. 1590.); *dioicum!* cespites lati procumbentes rigidi virescentes v. aurescentes; caulis decumbens longus valde ramosus rigidus, *foliolis veris brevibus lanceolatis paucissimis*, saepius tomento obtectus, ramis tenerrimis simplicissimis brevibus densis v. robustioribus plus minus iterum pinnatim ramulosis rigidis *apice distincte uncinatis* 1—2 pinnatim partitus; folia caulina *distincte homomalla*, plus minus laxiuscule imbricata, *e basi dilatata, alis magnis maxime ventricose impressis, laxè majuscule pellucide reticulatis praedita late hastato-acuminata, falcata*, margine erecto *ubique denticulato*, nervo crasso flavo v. rufescente in cuspidem exeunte, cellulis firmioribus brevibus pachyder-

mibus; perich. latiuscule lanceolato-acuminata appressa stricta subplicata *denticulata*, laxè tenuiter pellucide reticulata, nervo obsoleto in acumen exeunte; theca *H. fluviatilis*.

Brid. II. p. 527. — Hdw. Sp. Musc. p. 285. t. 76. — *H. compressum* Brid. Musc. Rec. II. II. p. 58. — *H. polycarpon* Blandow, Voit. in Sturm. D. Fl. Crypt. Fasc. 14! — *H. extricatum* Hoffm. Deut. Fl. II. p. 62. — *H. affine* Hoffm. l. c. p. 61. — *H. prolixum* Vill. Pl. Dauph. III. p. 914. sec. De Notaris. — *H. flaccidum* et *glareosum* Schleich. in schedis. — *H. filicinum*  $\beta$ . *trichodes* Brid. II. p. 529; *H. trichodes* Brid. Sp. Musc. II. p. 236; *H. dubium* Brid. Musc. Rec. II. II. p. 64; *H. rubrum* Vill. Pl. Dauph. III. p. 897; *H. conspurcatum* Brld. in schedis. — *H. filicinum*  $\gamma$ . *pendulum* Brid. II. p. 530. — *H. gracilescens* Bland. in Brid. Sp. Musc. II. p. 211; *H. filicinum*  $\delta$ . *gracilescens* Brid. II. p. 531. — *H. filicinum*  $\eta$ . *pinnatum* Brid. II. p. 532. — *H. repens*, *filicinum trichodes palustre*. Dill. Musc. p. 286. t. 36. f. 21!

*Patria.* Per totam Europam atque Americam septentrionalem, locis uliginosis, e planitie ad zonam subalpinam ascendens. — *Vere et aestate.*

Maxime varians quidem, sed tamen ab *H. fluviatili* characteribus cursive impressis facile distinguitur; ab *H. commutato* filis caulis confervoideis carens jam differt.

**355. *H. fluviatile* Sw.** (Musc. Suec. p. 63.); *monocum!* cespites late procumbentes rigidi virescentes v. aurescentes; caulis decumbens longus vage divisus rigidus filiformis, ramis *longiusculis vagis*, *apice haud vel vix curvulis*, rigidis simpliciter v. subpinnatim dispositis; folia caulina erecto-appressa v. subsecunda v. remota, *e basi angustata et medio parum latiore anguste lanceolata*, *apice parum incurvo*, carinato-concava, firma, margine erecto integerrimo, nervo crasso flavo v. rufescente excurrente v. in cuspidem exeunte, cellulis brevibus firmis saepe incrassatis diaphanis v. lutescentibus pachydermibus, alaribus *paucis planis* quadratis laxiusculis fuscescentibus; perich. appressa stricta pallidissima, longiuscule vaginantia anguste lanceolato-acuminata, elongate laxè tenuiter pellucide reticulata, nervo subvalido flavido in cuspidem subexcedente; theca in ped. elongato rubro laevi lon-

giuscule cylindrica arcuata inclinata, late annulata, operc. cupulato apiculato; perist. d. ext. lati longi lutei, intus maxime cristati, int. lati vix pertusi subpunctulati flaviusculi, ciliis 2—3 longis albis rugulosis remote nodosis.

Brid. II. p. 532. — Hdw. Sp. Musc. p. 277. t. 81. — *H. luridum* Sw. Musc. Suec. p. 68 ex Hartm. Sk. Fl. — *H. Seligeri* Brid. Musc. Rec. II. II. p. 67. — *H. flagelliforme* Brid. Sp. Musc. II. p. 240. — *H. diffusum* Blandow in Brid. Sp. Musc. II. p. 243! Brid. Br. univ. II. p. 538. — *H. Caucasicum* Brid. II. p. 535! — *H. fallax* Brid. Musc. Rec. II. II. p. 66. t. 2. f. 1. — *H. Vallis Clausae* Brid. Sp. Musc. II. p. 238! et Br. univ. II. p. 534. — *H. arrhizon* Brid. II. p. 535! — *H. filicinum*  $\varepsilon$ . *lanatum* Brid. II. p. 531; *H. radicabundum* Brid. in schedis; *H. lanatum* Sterm. in Schrift. d. Gesellsch. der Nat. Hist. I. 2. Heft. p. 30.

*Patria.* Per totam Europam, Americam septentrionalem et in Archipelago antarctico, locis uliginosis, planitiem et zonam montosam habitans. — *Aestate.*

Valde polymorphum, *H. filicino* proximum, notis autem laudatis procul dubio distinctum.

**356. H. hispidum** Hook. et Wils. (Lond. Journ. of bot. 1844. p. 552.); caulis laxe cespitosus longissimus, rami ascendentes *apice fastigiatis breviter divisi arcuati*, e viridi lutescentes, rigidissimi; folia caulina densiuscule imbricata, indistincte falcato-secunda, rigidissima, sicco flexuoso-crispata, madore erecto-potentia strictiora, e basi late ovata concava, ob marginis reflexionem distinctissimam biplicatâ subito *in subulam longam subfalcatam rigidam, nervo crassissimo subcanaliculato lutescente omnino occupatam opacam attenuata*, e cellulis ubique rotundis incrassatis firmis scariosis lutescentibus areolata; perich. minora ovata, nervo longe exserto; theca in ped. laevi ovata aequalis, operculo longirostri.

Cum ic. in Fl. Antart. I. p. 140. t. 61.

*Patria.* Insulae Aueklandi, ubi sterile legit J. D. Hooker; Nova Seelandia, fertile: J. D. H.

Fructum non vidimus. *H. fluviatili* proximum, notis laudatis distinctissimum, amphibium, cujus forma aquatica elongata *Cinclid. aquatico* similis.

357. **H. conspissatum** Hook. et Wils. (Lond. Journ. of bot. 1844. p. 553.); *caulis elongatus fluitans ramosus, ramis plus minus longis fastigiatim dispositis sordide viridibus, apice subincurvis, rigidis robustis; folia caulina densiuscule imbricata, plus minus falcato-secunda, rigida, crassiuscula opaca, carinato-concava, anguste ovato-lanceolata, nervo crasso excedente pungentia, limbo crassissimo tenerrime papilloso circumducta, integerrima, cellulis opacis maxime pachydermibus subrotundatis, sordide viridissimis, alaribus vix conspicuis incrassatis.*

Cum ic. in Fl. Antarct. II. p. 419. t. 155. f. 3.

*Patria.* Insulae Kerguelen et Falklandi, locis paludosis vel in aquis ipsis fluitans: J. D. Hooker, Lyall.

E distinctissimis, sterile tantum observatum, *H. fluviatilis* formis robustis proximum. *Cinclidodontibus* habitu haud dissimile.

$\beta$ . Nervi evanescentes.

358. **H. commutatum** Hdw. (Musc. Fr. IV. p. 68. t. 26.); *dioicum; cespites lati molles sordide virides ferruginei; caulis procumbens assurgens, ramulis gracilibus maxime secundifoliis simplicibus apice recurvis densissime approximatis apicem versus sensim brevioribus valde pinnatus, filis conferviformibus basi latioribus parce divisus obtectus; folia caulina laxa imbricata late hastato-lanceolata breviter acuminata falcata, superne tenuiter serrulata, firma, leviter plicata, carinata laevia margine subinvolutaceo, nervo valido ultra medium evanido luteo, cellulis minutis incrassatis luteo-viridibus pachydermibus subdiaphanis, alaribus majoribus paucis incrassatis fuscidulis v. pellucidis; perich. valde exserta appressa stricta, late lanceolata plicata subintegerrima, multo pallidiora, laxius reticulata, nervo latissimo ante apicem evanido; theca in ped. crasso purpureo flexuoso laevi geniculato-ascendente subhorizontalis, e basi turgida arcuato-cylindracea, badia, operc. conico acuto, annulo angusto; perist. robusti d. int. in membr. alta flavida angusti hiantes, ciliis 1-2 brevioribus albidis.*



Brid. II. p. 523. — *H. vitellinum* Brid. II. p. 769! — *H. filicinum* Vill. Fl. Dauph. III. p. 897. — *H. diastrophyllum* Sw. Musc. Suec. p. 58. — *H. glaucum* Lam. et Dec. Syn. Fl. Gall. p. 108. — *H. fontanum* Nonnull. — *H. repens filicinum crispum*. Dill. Musc. p. 282. t. 36. f. 19. A—F.

*β. falcatum*; caulis magis fluitans laxius foliosus, foliis minus circinnatis. *H. falcatum* Brid. Sp. Musc. II. p. 212. — Br. univ. II. p. 526.

*Patria.* In locis fontanis aquosis totius Europae, e planitie in alpes, ubi var. *β.* praeprimis habitat, ascendens. — *Aestate*, raro fructificans.

Notis cursive impressis species distinctissima.

**359. *H. lycopodioides*** Schwägr. (Suppl. I. II. p. 300.); *dioicum*; *H. scorpioidi* habitu simile, sed caules et rami flaccidi; folia caulina late lanceolata longe acuminata falcata robusta, margine erecto integerrimo superne subinvolutaceo, nervo lato ante apicem evanido, cellulis alaribus vix ullis minutissimis incrassatis viridibus; perich. caulinis similia, stricta ubique laxius reticulata, nervosa plicata; theca *H. scorpioidis*.

*H. Stereodon lycopodioides* Brid. II. p. 632. — *H. rugosum* Web. et Mohr. Bot. Taschenb. p. 362. — *H. scorpioides* Schultz. Fl. Starg. n. 923. — *H. diastrophyllum* Lam. et Dec. Fl. Franç. I. p. 528. — *H. lutescens crispum*, Lycopodii facie. Dill. Musc. p. 289. t. 37. f. 24. C. D.

*Patria.* In locis profunde turfosis per totam Europam, e planitie in alpes ascendens. — *Aestate*, rarius fructificans. Rarum videtur!

Ab *H. commutato*, quocum saepe commutatur, caule filis conferviformibus haud oblecto jam longe distat.

**360. *H. rugosum*** Ehrh. (Dec. n. 291.); *dioicum*; cespites lati laxe cohaerentes molles amoene lutei robusti proceri; caulis procumbens assurgens crassus robustus densifolius, ramis similibus crassis apice curvatis vel tenuioribus attenuatis vage ramosus et pinnatus; folia caulina densissime erecto-imbricata, secunda, late oblongo-ovata longe falcate acuminata, ubique rugosa, margine apice denticulato ubique revoluto, dorso remote denticu-

*lato-scabra*, nervo ultra medium evanido canaliculato, cellulis angustis *curvatis in membranam scariosam veluti conflatis* pallidis, alaribus *permultis planis rhomboideo-quadratis incrassatis*; perich. appressa stricta pallidiora, late lanceolato-acuminata longitudinaliter plicata, basi infima laxius reticulata; theca in ped. elongato purpureo inclinata, arcuato-cylindracea, late annulata, operc. conico *suboblique rostellato*; perist. d. ext. lati longi lutei valde cristati, int. in membrana alta flavida densissime reticulata angusti hiantes, ciliis 1—2 brevibus.

*H. Stereodon rugosus* Brid. II. p. 633. — *H. rugulosum* Web. et Mohr. Bot. Taschb. p. 363. — *H. lutescens crispum*, Lycopodii facie. Dill. Musc. p. 289. t. 37. f. 24. A. B.

*Patria.* In collibus apricis argillaceo-calcareis per totam Europam passim et in America septentrionali. — *Vere.* Rarissime fructificans.

Notis laudatis ab *H. scorpioide et lycopodioide* distinctissimum. Flores masculi et feminei fugacissimi.

**361. H. palustre** L. (Sp. Pl. p. 1593.); *monoicum*; cespites lati prostrati virides; caulis repens, ramis fasciculatim divisis *subtenuibus distincte homomallophyllis apice uncinatis*, humore mollibus; folia caulina valde secunda *brevia oblongo-ovato-lanceolata subcomplicate concava, parum falcata*, margine erecto v. paulisper involutaceo *integerrimo*, nervo valido ante apicem evanido *saepe gemino* viridi, cellulis brevibus viridibus minutis, alaribus paucis minutis viridibus, dein badiis plus minus impressis; perich. appressa stricta tenuiora late longe lanceolato-acuminata pallida; theca in ped. *brevi* crasso rufo laevi subflexo inclinata cylindraceo-oblonga cernua exannulata fusca, operc. conico; perist. d. ext. longi lati lutei, latere intus distincte cristati, int. in membrana breviuscula flavida subangusti hiantes, ciliis 1—2 albidis nodosiusculis.

*H. Stereodon palustris* Brid. II. p. 639. — *H. luridum* Sw. Musc. Suec. p. 58 et Hdw. Musc. Fr. IV. p. 99. t. 38. — *H. adnatum* Turn. Musc. Hib. p. 165. — *H. heterophyllum* Neck. Meth. Musc. p. 168. — *H. heterophyllum aquaticum polycephalum, repens,*

Dill. Musc. p. 293. t. 37. f. 27. — *Neckera palustris* Willd. Prodr. Fl. Berol. n. 943.

$\beta$ . *subsphaericarpon*; theca magna turgide globoso-ovata rectiuscula. *H. sphaerocarpon* Spreng. Syst. Veget. IV. p. 201. — *H. Stereodon subsphaericarpon* Brid. II. p. 641. — *H. subsphaericarpon* Schleich, Cent. II. N. 46. — *H. foliis ovato-lanceolatis falcatis, capsulis ovatis.* Hall. Hist. St. Helv. n. 1738.

$\gamma$ . *aquatile*; prostratum, foliis magis erectis. *H. aquatile* Mart. Fl. Erl. Crypt. p. 19. t. 1. f. B.

*Patria.* Per totam Europam et Americam septentrionalem, e planitie in alpes ascendens, aquam stagnantem v. fluentem et ibidem lignum putridum atque saxa habitans. Var.  $\beta$ . in alpibus rivulos et saxa humida amans. — *Aestate.*

Subsectio II. **Homomallia.** Caulis ascendens, dichotome ramosus, apice recto; folia plus minus secunda, nunquam falcata, nunquam squarrulosa.

A *Drepanophyllaria* foliis secundis, nec falcatis, a *Strigodio* foliis erectis differt.

a. *Folia secunda patula.*

362. **H. rusciforme** Weis (Crypt. Gött. 1770! p. 225.); *dioicum*; cespites latissimi laxè intertexti firmi sordide viridissimi; caulis ramis elongatis *robustis squamosè foliosis* dichotomis vage ramosus, plerumque fluitans vel repens; folia caulina laxè conferta vel densiora subsecunda, appressa, humore erecto-patula, magna robusta, late ovato-lanceolata, concava, margine erecto remote denticulato, nervo valido ultra medium tenuiter evanido, cellulis angustissime linearibus densis chlorophyllosis, alaribus ad basin parum impressam indistinctis majusculis pachydermibus rectangularibus; perich. pauca appressa, e basi vaginante laxissime reticulata enervi breviuscule et latiuscule acuminata stricta, margine superne hic illic emarginato v. denticulato; theca in ped. molli breviusculo rubente laevi inclinata, e collo brevi *ventricoso-oblonga, ore coarctata, pachydermis carnosa, late annulata, fuscidula, operc. conico longe oblique subulato;*

perist. d. ext. robusti rufescentes, apice subserrulati, int. angusti flavi hiantes subpunctulati, ciliis 2—3 albis subnodosis.

Brid. II. p. 497. — *H. ruscifolium* Neck. Meth. Musc. 1771! p. 181. — *H. riparioides* Hdw. Musc. Fr. IV. 1797! p. 10. t. 4. — *H. virens* Sw. e Mohri fide. — *H. rivulare* Ehrh. Crypt. Exs. No. 252. — *H. foliis rusciformibus*, capsulis subrotundis. Dill. Musc. p. 298. t. 38. f. 31. — *H. prolixum* Dicks. Fasc. II. Pl. Crypt. p. 13. *H. rusciforme*  $\beta$ . *prolixum* Brid. II. p. 499. Forma longissime fluitans. *H. aquaticum*, *prolixum*, foliis ovatis. Dill. Musc. p. 298. t. 37. f. 32 et t. 85. f. 20. — *H. rusciforme*  $\gamma$ . *fontanum* Brid. II. p. 499. — *H. Atlanticum* Desfont. in Brid. Musc. Rec. II. II. p. 121. t. 4. *H. rusciforme*  $\delta$ . *Atlanticum* Brid. II. p. 499. Forma robustissima. *H. flagellare*, saxatile, capsulis gracilibus. Dill. Musc. p. 306. t. 39. f. 42. — *H. alopecuroides* var. *Hibernicum* Hook. in Hb. Dec. *H. rusciforme*  $\epsilon$ . *alopecuroides* Brid. II. p. 500. Forma ramis elongatis subjulaceis subsimplicibus atro-virentibus. — *H. inundatum* Brid. Musc. Rec. II. II. t. 5. f. 3. *H. rusciforme*  $\zeta$ . *inundatum* Brid. II. p. 500. *H. aquaticum* Poll. Pl. Pal. III. p. 1020. *H. obtusifolium* Dicks. inedit. — *H. rotundifolium* Abbot. Fl. Bedfordiens. p. 245. *H. rusciforme*  $\eta$ . *rotundifolium* Brid. II. p. 501. — *H. rusciforme*  $\iota$ . *longisetum* Brid. II. p. 501.

*H. Fontium* Brid. II. p. 417, ex insula Teneriffae a Bory St. Vincent relatum formam putamus longissimam tenerrimam, foliis rotundius ovatis.

*Patria.* Ad saxa lignaque aquarum fluentium vel fontium planitiei et zonae montosae per totam Europam atque Americam septentrionalem. — *Auctumno et hyeme.*

E locis maxime varians, sed notis cursive impressis primo visu facillime cognoscendum.

**363. *H. duriusculum* Schimp.** (in Hb. Schlechtendal.); *monoicum*; cespites *latissimi prostrati dense cohaerentes lutescentes* duri robusti; caulis decumbens valde dichotomus assurgens robustiusculus subteres, ramis *apice curvatis* brevibus rigidis obtusis subjulaceis; folia caulina *dense erecto-appressa*, subsecunda, madore parum patula, *latissime ovata breviter acuminata*, alis basilaribus decurrentibus, ad nervum indistincte ventricose impressis, margine erecto, apice subdenticulato, nervo lato unico, ultra medium evanido, saepius subfurcato, cellulis firmis

breviter linearibus, hic illic implana, concava; perich. vaginantia, acuminata recta enervia, basi multo laxius reticulata; theca in ped. mediocri rubro valido firmo *ubique leviter tuberculoso* suberecta anguste oblonga pachydermis firma exannulata, operculo conico obtuso firmo; perist. d. ext. lutei longiusculi, int. angusti, flavidi valde hiantes, ciliis 1 — 2 aequilongis albidis interjectis.

*Patria.* Mexico, in cavernis trachytaceis crateris m. Cerro de los Nabajos, Mart. 1839: C. Ehrenberg.

Notis laudatis jam ab *H. molli* differt et species partibus omnibus firmis duris primo momento facile distinguenda.

364. *H. secundum* Mont. (Ann. sc. nat. 1842. p. 244.); *monoicum*; caulis laxe cespitosus repens, ramis procumbentibus viridibus longiusculis *tenuibus* flexuosis apice parum curvatis subfasciculatim divisis; folia caulina laxiuscule conferta secunda, ovato-lanceolata acuminata concava subdenticulata, acumine brevi semel torto parce serrulato, margine basi parum convexo, nervo ultra medium evanido viridi, cellulis brevibus *firmiusculis* virescentibus, alaribus *paucis parvulis quadratis pellucidis, haud decurrentibus*; perich. multa *squarroso-reflexa*, e basi late vaginante laxe reticulata pellucida enervi *reflexe longe acuminata* subdenticulata, planiuscula; theca in ped. purpureo scaberulo longiusculo *inclinata ovato-oblonga cernua* fusca, exannulata; operc. conico *acuminato incurvo*; perist. d. ext. latiusculi lutei, int. intense lutei hiantes, ciliis binis aequilongis v. brevioribus albidis interjectis.

*Patria.* India orientalis, ad terram humidam prope Neddoubetta in montibus Neelgheriensibus: Perrottet 1838 legit.

Ab *H. duriusculo* notis laudatis et partibus omnibus multo mollioribus tenerioribus differt.

b. *Folia secunda appressa.*

α. *Pedunculus laevis.*

365. **H. strigosum** Hoffm. (Deutschl. Fl. 1795. p. 76.); *dioicum*; cespites latissimi conferti laxè cohaerentes virides v. lutescentes; caulis repens, ramis humilibus brevissime ramulosis subjulaceo-teretibus v. magis squarrosifoliis subfastigiatis divisus; folia caulina erecta conferta parvula *subrotundate ovata, breviter obtuse acuminata*, profunde concava, margine infima basi convexo denticulato, *apice distincte serrulato*, nervo latiusculo ante apicem evanido, cellulis brevibus firmis lutescentibus, alaribus paucis minute quadratis pellucidis; perich. e basi latius vaginante subito fere longius acuminata stricta, enervia, longe laxè pellucide tenuiter reticulata, margine superne eroso-denticulata; theca in ped. longiusculo rubro *laevi* inclinata oblonga arcuata annulata, operc. conico *longiuscule oblique rostrato*; perist. d. ext. rufescentes, int. flavi subsolidi laeves, ciliis binis laevibus.

Brid. II. p. 446. — *H. Thuringicum* Brid. Musc. Rec. II. II. p. 99. t. 3. f. 2. — *H. velutinoides* Voit. Musc. Herbip. p. 99. — *H. praecox* Sw. in Hedw. Sp. Musc. p. 249. t. 65! procul dubio huc pertinet forma caule magis julaceo, foliis minoribus thecaque discelloideo-ovata breviorè. — *H. Stereodon praecox* Brid. II. p. 589. — *H. pulchellum* Hdw. Sp. Musc. p. 265. t. 68! — *H. abbreviatum* Schleich. Cent. IV. No. 25. — *Leskea fasciculosa* Hdw. Sp. Musc. p. 217. t. 54! e spec. auctoris. — Brid. II. p. 305.

*H. serrulatum* Brid. Hsch. in Brid. II. p. 390 in Chile indicatum, a Chamisso lectum, e spec. peregrinatoris omnino huc sedem tenet! — *H. diversifolium* Schimp. in litt. ad Sullivant! ex Ohione et Novo-Mexico sec. spec. Sulliv. pariter huc revocandum est.

*Patria.* Per totam Europam, extra arcticam et Britannicam, ad terram, e planitiibus septentrionalibus Germaniae usque in zonam alpinam ascendens. In America septentrionali in terris praeruptis ex Sullivant vulgare, fide Drummondii ad radices arborum e Canada usque ad Rocky Mountains; ad Talcahuano Chiles 1816 leg. A. de Chamisso. — *Vere.*

E statura, foliorum magnitudine atque longitudine et thecae forma variat. Ab *H. Funkii* proximo signis datis facile discernendum; saepius *H. velutino* simillimum.

**366. *H. collinum*** Schleich. (in schedulis!); *monoicum!* *H. strigoso* simillimum, sed rami *tenuiores, minus julacci et rigidi*; folia caulina *distinctius subsecunda* et minus appressa, e basi ovata sensim in acumen *longiusculum subobliquum acutatum attenuata*, valde concava, margine *ubique serrulato*, infima basi convexo, nervo carinato tenuiore dimidiato *breviore*, cellulis alaribus chlorophyllosis; perich. late vaginanti-oblonga, ex apice rotundato erose dentato subito in acumen breve strictum denticulatum attenuata, enervia, e cellulis brevioribus laxis composita, enervia; theca in ped. breviusculo rubente laevi *arcuato erecta oblonga* parvula; perist. *H. strigosi*.

*Patria.* In monte Splügen Rhaetiae legit W. P. Schimper, qui plantulam pulchellam, distinctissimam atque rarissimam nobis humanissime communicavit. — *Aestate.*

*H. Funkii* pedunculo papilloso primo adspectu differt.

β. Pedunculus scaber.

**367. *H. Funkii*** Hsch. (in schedis!); *monoicum*; *cespites* humiles sordide virides decumbentes; caulis repens, ramis pinnatim dispositis humilibus curvulis subfasciculatim brevissime ramulosis teretibus; folia caulina humore et siccitate dense appressa subsecunda, *brevia, e latiuscule ovata basi breviter oblique lanceolata*, profunde concava, biplicata, *nervo profunde canaliculato* ultramedio viridi, margine inferne revoluto, *ubique subserulato*, cellulis firmissimis brevibus densis viridibus, alaribus paucis minutissime quadratis subpellucidis; perich. late vaginantia appressa pallida stricta longius acuminata, pellucide elongate laxiuscule reticulata, obsoletinervia v. enervia, subdenticulata, superne margine interdum undulata sinuata; theca in ped. brevi *ubique papilloso* valido

rubro inclinata, turgide gibboso-ovalis, annulata, brunescens, operc. conico brevissimo; perist. d. ext. robusti rufescentes, superne pallescentes serrulati rugulosi, interni flavi granulosi subhiantes, ciliis binis longis nodosis albidis interjectis.

*Patria.* Alpes Salisburgenses, ubi Julio 1821 legit Funk.

*H. strigoso* habitu valde simile, characteribus autem cursive impressis distinctissimum.

368. **H. Sullivantii** Spruce (in Gray's Manual of bot. 1848.); *dioicum*; laxe cespitosum, ramis luteo viridibus rigidiusculis assurgentibus subteretibus vage divisum; folia caulina laxiuscule disposita, *ovato-lanceolata breviter acuminata, acuta, concava, margine infimae basis reflexo, ubique serrulato*, nervo ultramedio viridi canaliculato, cellulis brevibus angustis densis virescentibus subfirmis, alaribus paucis minute quadratis; perich. appressa, e basi late vaginante, pellucide anguste elongate reticulata, enervi subito fere in acumen reflexiusculum attenuata, *subintegerrima*; theca in ped. brevi purpureo *ubique valde tuberculoso* inclinata gibboso-ovalis, late annulata, rubra, subarcuata, operc. conico acuminato *acuto recto*; perist. d. ext. angusti aurantiaci, int. flavi angusti, valde hiantes, ciliis binis hyalinis teneris.

*H. praelongum* var. Sulliv. Musc. Allegh. Exs. No. 44.

*Patria.* Ad ripas rivulorum in Tygart's Valley Virginiae et circa Columbus Ohionis: Sullivant.

Ab *H. strigoso* proximo characteribus designatis certe distinguitur; ab *H. Stokesii* atque *praelongo* statura assurgente, foliorum forma, pedunculo brevi et operculo longinquum, *H. populeo* haud dissimile.

#### Incertae sedis.

369. **H. inflexum** Harvey (Hook. Ic. Pl. Rar. t. 24; c. descr. Lond. Journ. of bot. 1840. 2. p. 20); caulis repens vage pinnatus, ramis *brevissimis teneris apice subinflexis amoene pinnatim dispositis lutescentibus tere-*



tiusculis; folia caulina *squarroso-patentia* minuta subsecunda, late ovato-acuminata, concava, margine erecto ob papillas minute denticulato, nervis binis parum divergentibus tenuissimis carinatis pallidis, cellulis brevibus firmis densis lutescentibus, ob papillas singulas scaberrimis, alaribus *permultis rhomboideo-quadratis firmis subobscuris*; theca ovata cernua.

*Patria.* Nepal: Wallich.

Fructum non vidimus. Characteribus expositis facile discernibile.

c. *Folia vix secunda patentia.*

α. Pedunculus laevis.

**370. H. molle** Dicks. (Fasc. II. p. 11. t. 5. f. 8.); *dioicum*; cespites lati *laxissime cohaerentes*; caulis primarius repens, secundus *longiusculus, pendulus vel fluitans, basin versus nudus, turgide teres, apice obtusus*, subhomomallophyllus, ramis paucis similibus apice subcurvatis *rigidiusculis* e viridi rufescenti-lutescentibus *fasciculatim divisus*; folia caulina appressa, late ovata subrotundata cochleariformi-concava obtusa, in acumen breve planiusculum acutata, margine erecto, nervis *binis latiusculis, saepe plus minus in unicum conflatis*, ante apicem evanidis viridibus, alaribus paucis laxis pellucidis, dein amoene badiis, parum impressis; perich. vaginanti-ovata breviter acuminata, *tenerrime membranacea pellucida laxe reticulata*; theca in ped. brevi crasso rufo laevi flexuoso *subglobosa cernua subrecta* brunnea, operc. *conico obtuso brevi*, annulo lato; perist. d. ext. breviusculi lati lutei, vix cristati, int. *angusti hiantes* subflavidi, ciliis *singulis* fugacibus interpositis.

Hdw. Sp. Musc. p. 273. t. 70. — *H. Stereodon mollis* Brid. II. p. 570. — *H. rupestre* Schleich. Cent. II. n. 47. e Brid.

*H alpestre* Sw. Musc. Suec. p. 63. t. 6. f. 15 e spec. auth. huc pertinet. — *H. Stereodon alpestris* Brid. II. p. 571. — *H. alpestre* Hdw. Sp. Musc. p. 247. t. 64.

*Patria.* In rivulis montanis et alpinis forsan totius Europae montosae et alpinae. — *Aestate.*

Notis cursive impressis propria species et ab *H. murali* toto coelo distans, *H. rusciforme* magis spectans.

371. *H. arcticum* Sommerf.; *H. molli* simile, sed rami plerumque tenuiores filiformes rigidissimi, squarro-sulo-foliosi; folia caulina *distincte rotundate obtusa*, plerumque minora, nervo lato unico, cellulis ubique brevibus *incrassatis*.

*H. obtusifolium* Hook. in Drumm. Musc. Amer. No. 193 forma videtur ramis crassis turgidis subclavatis, foliis latioribus majoribus. — *Leskea Smithii* Sw. ex Hartmann.

*Patria.* In alpibus Norvegiae et in Sudetis „am kleinen Teiche“, ubi 1838 leg. Sendtner. In rivulo montium Rocky Mountains dict. Americ. sept. leg. Drummond.

β. Pedunculus scaber.

372. *H. Starckii* Brid. (Sp. Musc. II. p. 166.); *hermaphroditum!* cespites late prostrati viridissimi v. lutescentes; caulis repens, ramis *elongatis flaccidis laxissime foliosis* breviter pinnatim ramulosis robustiusculis obtusis, haud attenuatis, vage ramosus; folia caulina *valde patentia, e basi cordato-ovatâ late lanceolato-acuminata, planiuscula*, rarius complicate concava, estriata, margine erecto, *valde serrulato*, nervo elongato ante acumen evanido subtenui, cellulis angustis elongatis pellucidis virescentibus, alaribus ad alas basilares vix impressas paucis vix distinctis rectangularibus pellucidis v. virescentibus; perich. e basi latissime vaginante laxissime reticulata pellucida enervi longissime stricte v. reflexe acuminata, ante acumen suberose v. emarginate denticulata; theca in ped. valido rubro *ubique scabriusculo* mediocri inclinata, arcuato-oblonga brunnescens; perist. d. ext. robusti rubiginosi, int. in membr. alta densissime reticulata flava laevi angusti subhiantes granulosi, ciliis binis capillaribus albis nodosis.

Brid. II. p. 595. — *H. androgynum* Wils. in litteris!!

*Patria.* In Silesia ad terram et arbores detexit Starcke; ad truncos putridos Duc. Megapolitani; Blan-

do w; prope Avenionem legit Requier; in Anglia, ad saxa et arborum radices in comitatu Sussex: Mitten ad W. P. Schimper, qui nobis nomine *H. androgyni* benevole communicavit. Ex aliis locis speciem veram nondum vidimus! — *Vere.*

Characteribus laudatis paucis jam distinctissimum, habitu *H. Megapolitano* v. *rutabulo* simile. Species vera, ab auctoribus hucusque valde commutata, e spec. Hb. Bridelii distincte hermaphrodita, pulcherrima!

**373. H. Meridense** C. Müll. (Linn. XIX. p. 220.); *dioicum*; caulis procumbens laxe cespitosus, ramis *brevibus* rigidiusculis sordide viridibus vage divisus, tenuiusculus; folia caulina laxe veluti squarrulose imbricata, *latissime ovato-lanceolata breviter acuminata*, denticulata, caviuscula, *parum torta*, margine erecto, *superne vix involutaceo*, infima basi vix reflexo decurrente, *nervo unico dimidiato tenui obsoleto*, cellulis brevibus angustissimis virentibus, alaribus minute quadratis pellucidis parum impressis; perich. late vaginantia, in acumen reflexum attenuata, enervia, laxius reticulata, integra; theca in ped. longiusculo rubro *apice scabriusculo* horizontalis, parva, subturgide gibboso-ovalis, fusca, dein nigrescens, operc. breviter conico; perist. d. ext. breves lutescentes, int. angusti valde hiantes flavi laeves, ciliis *longis binis tenuerrimis subappendiculatis* hyalinis laevibus.

*Patria.* Venezuela, in montibus nivosis prov. Meridæ: Moritz.

Ab *H. molli* habitu proximo notaculis expositis toto coelo distans et *H. Starckii* simile.

**374. H. melanocarpum** C. Müll.; *monoicum!* cespites latissimi deplanati sordide virides, rigidiusculi; caulis repens, ramis decumbentibus *robustioribus* flexuosis attenuatis laxifoliis brevibus simplicibus vel longioribus iterum pinnulate ramulosis vage ramosus; folia caulina laxiuscule conferta patula, *anguste ovato-acuminata*, caviuscula, subdenticulata, estriata, nervo viridi tenui ultra medium evanido, margine erecto, infima basi parum im-

presso, *haud decurrente*, cellulis angustissimis *elongatis* densis virescentibus, alaribus paucis minute quadratis subvirentibus; perich. e basi latius vaginante laxe reticulata obsoletinervi in acumen longiusculum flexuosum attenuata, subintegerrima; theca in ped. elongato purpureo apice scaberulo horizontalis, turgide globoso-ovalis brevis macrostoma, nigrescens, exannulata, operc. turgide conico *acuminato apiculato*; perist. *H. Meridensis*.

*H. velutinum* Duby in Pl. Zollinger. No. 1809 et in Moritzi Syst. Verz. p. 131!

*Patria.* Java: Zollinger No. 1809.

Ab *H. Meridensi* simillimo characteribus laudatis longinquum.

Subsectio III. **Strigodium.** Caulis decumbens vel ascendens strigosus dichotome v. pinnatim divisus; folia *squarrulose patentia, secunda*.

Ab *Homomallia* et *Drepanophyllaria* foliis squarrulose patentibus distinguitur.

*Folia uninervia.*

**375. H. elodes** Spruce (Lond. Journ. of bot. 1845. 4. p. 174.); caulis tenuis procumbens s. erectus, irregulariter ramosus, ramis pinnatis; folia brunnescentia, superiora viridia, laxe imbricata, caulina patula anguste ovato-lanceolata longe acuminata; ramulina erecto-patula, superiora subsecunda subulata setacea, omnia integerrima, nervo perdurante tenui. †.

*Patria.* Locis humidis sylvae Stockton Forest prope York Angliae, *H. lycopodioidi* et *scorpioidi* associatum: Spruce 1842. Aug. sterile legit.

*H. chrysophyllum* Brid. ex auctore differt: foliis magis densioribus squarrosis ovate vel cordate acuminatis gracilioribus, nervo medium non superante et cellulis latioribus brevioribus laxioribus; ab *H. fluitante* nervo semper percurrente, ab *H. filicino* foliis integris et absentia radicularum caulis, ab *H. fluviatili* textura laxiore et nervo crassiore distinguitur. Beatus Bruch speciem novam sancivit.

**376. H. chrysophyllum** Brid. (Musc. Rec. II. II. p. 84. t. 2. f. 2.); *H. stellato* simillimum, sed rami plerumque procumbentes graciliores, folia subsecunda, *nervo unico ultra medium producto* et cellulis alaribus dein incrassatis fuscis praedita; fructificatio omnino *H. stellati*.

*H. Stereodon chrysophyllum* Brid. II. p. 598. — *H. fragile* Brid. Sp. Musc. II. p. 198. — Br. univ. II. p. 597. — Schw. Suppl. II. I. p. 162. t. 145. — *H. squarrosulum* Brid. Musc. Rec. II. II. p. 149. t. 4. f. 2. vel *H. Stereodon chrysophyllum*  $\beta$ . *squarrosulus* Brid. II. p. 599.

*Patria.* Locis iisdem cum *H. stellato* per Europam et Americam septentrionalem.

Ab aliis scrutatoribus *H. stellati* varietas declarata est.

*Folia binervia.*

**377. H. stellatum** Schreb. (Spic. Fl. Lips. p. 92.); *monoicum*; cespites alti laxè pulvinulati aurescentes; rami plus minus *robusti*, apice stellatim foliosi, assurgentes, parce breviter ramulosi; folia caulina squarruloso-patentia, saepius subsecunda, *ex ovato in acumen longum acutatum semel tortum vel substrictum canaliculatum subreflexum attenuata*, concava, *integerrima*, margine erecto, nervis binis obsoletis, cellulis firmis angustis densis lutescentibus longiusculis, *alaribus ad alas basilares distincte ventricose impressas majuscule quadratis pellucidis, serius incrassatis fuscis*; perich. e basi longe vaginante longiuscule acuminata appressa stricta, ubique integerrima et elongate pellucide reticulata; theca in ped. longiusculo laevi rubro inclinata, cylindræa arcuata, annulata, fusca, operc. conico brevissimo; perist. *H. Halleri*, internum flavum, ciliis 2—3 interjectis.

*H. Stereodon stellatus* Brid. II. p. 600. — *H. Mühlenbergense* P. B. Prodr. p. 66! — *H. protensum* Brid. Musc. Rec. II. II. p. 85. t. 2. f. 3. vel *H. Stereodon stellatus*  $\beta$ . *protensus* Brid. II. p. 602; forma longissima decumbens. — *H. comosum* Vill. Pl. Dauph. III. p. 904. — *H. coma lutescente*, extremitatibus stellatis. Dill. Musc. p. 302. t. 39. f. 35.

$\beta$ . *tenellum*; caules et rami pusilli, saepius filiformes serpentini intricati; partes omnes caeterae minores. *H.*

*Stereodon stellatus*  $\gamma$ . *polymorphus* Brid. II. p. 602. — *H. polymorphum* Hdw. Sp. Musc. p. 259. t. 66. — *H. Sommerfeltii* Myrin in Hartm. Handb. i Sk. Fl. Ed. 5. p. 331. — *H. affine* Sommerf. ex Hartman ibidem.

*Patria.* Per totam Europam atque Americam septentrionalem, in turfosis locisque aliis humidis, terram, rupes et saxa habitans. Var.  $\beta$ . locis iisdem plerumque siccioribus. — *Vere.*

**378. H. chrysophylloides** Gumbel (iu schedis Sendtnerianis!); *monoicum!* caulis intricatus *gracilior* assurgens rigidus, humore flaccidus, amoene lutescens, *distincte homomallophyllus*, ramis longiusculis *veluti compressis* parce divisus; folia caulina *squarrosulo-patentia*, e basi amplexante subovata subito lanceolato-acuminata, acumine acutissimo tenero breviusculo, stricto, concava, estriata, margine erecto *distincte denticulato*, nervis binis brevissimis, cellulis *ellipticis* subconflatis lutescentibus, basi interdum fuscis, alaribus pluribus *vesiculaeformibus ad caulem decurrentibus albidis*; perich. late ovato-vaginantia valde eroso-denticulata, acumine tenero brevi denticulato terminata, laxius pellucide tenerius reticulata, enervia; theca in ped. longiusculo tenui laevi oblique erecta *longicolla* anguste cylindracea subarcuata, parva; perist. *H. chrysei*.

*Leskea intricata* Hartm. Sk. Fl. Ed. 5. p. 336. vel *Leskea chrysea* Ångstr. forsā huc pertineat!

*Patria.* In Sudetis ad Kesselkoppe legit Sendtner 24. Aug. 1839; praeterea in Gothia Sueciae prope Omberg et in Mostamarken Norvegiae ex Ångström et Hartmann sterile observatum.

Species signis expositis ab *H. chryseo* certe distincta; ab *H. stellato* foliis late ovatis, subito in acumen breve planum tenue productis, haud canaliculatis, denticulatis, cellulis alaribus vesiculososis decurrentibus facile distinguitur; ab *H. chrysophyllo* notis modo expositis et nervis binis longe differt.

**379. H. flagellare** Dicks. (Fasc. II. Pl. Crypt. p. 12.); *dioicum*; late prostratum, inferne ferrugineum, su-

*perne amoene viride v. lutescens; caulis vage pinnatim ramosus, inter folia caulina foliolis spinaeformibus cellulosis simplicibus brevibus obtectus, ramis inaequalibus longiusculis teretiusculis parum secundifoliis flagellaribus, apice curvatis; folia caulina squarrosulo-subsecunda, late hastate v. cordato-lanceolata cochleariformi-concava, margine ubique erecto et serrulato, nervis binis brevibus tenuibus pallidis, cellulis anguste linearibus brevibus subcurvatis viridiusculis laevibus, alaribus vix ullis minutissimis pallidis; perich. valde exserta squarrosa pallidiora, latissima longissime acuminata subintegra ubique elongate et laxe pellucide reticulata; theca in ped. crasso purpureo laevi stricto inclinata oblongo-ovata, operc. conico obtuso brevi.*

Hook. et Tayl. Musc. Brit. ed. II. p. 174. t. 25. — Brid. II. p. 434. — *H. Armoricum* Brid. II. p. 525! vel *H. pseudo-commutatum* Laphyl. in Hb. Brid. et l. c.

*Patria.* Ad saxa juxta rivulos alpium Scotiae et in Hibernia Dickson detexit. In montanis silicosis Armoricae inferioris (Basse Bretagne), ubi in paludibus turfo-sis prope montem Ménébrée ad oppidi Morlaix occasum et in declivibus uliginosis sylvae Pencran à la Derneau legit La Pylaie. Ad saxa irrigua pr. Bagnères-de-Bigorre Pyrenaeorum: W. P. Sch. auct. 1847; ad cataractam inter pagum Labassère et fontem dict. la fontaine sulfureuse: Spruce; in rupibus humidis sylvae nigrae: A. Braun; ad rupes madidas Bavariae superioris „an der Benedictenwand”: Sendtner. Rarissime fertile.

Notis laudatis ab *H. commutato*, quocum *Bridelius* comparavit, toto coelo distans et pulcherrima species.

380. *H. heteropterum* Spruce (in Musc. Pyren. No. 56. Exs. et No. 15. in Ann. and Magaz. of Nat. Hist. 1849.); *dioicum*; dense implexum prostratum, inaequaliter pinnato-divisum ramosissimum, ramis ascendentibus apice curvatis, luteo-viridibus; rigidissimis, tenuibus; folia caulina laxè imbricata erecto-patentia subsecunda, e basi subdecurrente ovata lanceolato-acuminata falcata v. obli-

*qua implana, eroso-serrulata, margine inferne indistincte revoluta, nervo furcato latiusculo brevi, cellulis incrassate ellipticis scariosis lutescentibus duris, alaribus magis incrassatis rotundatis, omnibus dorso remote tenuiter papillosis, in caule fertili saturate viridibus; perich. numerosa, externa brevissima, interna elongata et flexuoso-acuminata enervia subdenticulata laxae areolata laevia; theca in ped. semunciali laevi rufo cernua, ovato-oblonga late annulata, operc. e basi conica longe oblique rostrato, thecam subaequante, calyptra glabra; perist. d. ext. pallidi, int. solidi, ciliis binis filiformibus interjectis.*

*Leptohymenium heteropterum* Hüb. Musc. Germ. p. 553. — *Pterogonium heteropterum* Bruch in Schw. Suppl. III. 1. 1. t. 210! — *Pterigynandrum heteropterum* Brid. II. p. 176! sed speciminibus tantum Vogesiacis. — *Hypnum catenulatum* H. et Tayl. Musc. Brit. ed. II. p. 160. t. 24 fide Sprucei.

*Patria.* In monte Hühneck Vogesorum ad arborum truncos sterile leg. Mougeot et Nestler; in Germania occidentali, inter Bonn et Trier fide Hübeneri; in Hercynia superiore: Hampe; in Sudetis, Tirolis, Helvetia; in Hibernia ad Powerscourt Waterfall primus omnium legit Taylor; in Angliae et Scotiae plurimis locis reperiuntur; ad saxa in sylvis Pyrenaeorum centralium saepe frequens: Spruce fructibus onustus 1845. 17. Oct. — Rarissime fertile.

*H. flagellari et implexo* simile, characteribus distinctius expositis distinctissimum. Fructum non vidimus.

**381. H. macrocarpon** Hsch. (Nov. Act. Acad. Caes. Leop. XIV. 2. Suppl. p. 725. t. 41.); *dioicum*; *H. flagellari* simillimum, sed rami breviores minus flagellares, lutescentes; folia caulina minus secunda, latius cordato-ovata breviter acuminata, subpapillosa; perich. magis reflexo-squarrosa; theca in pedunculo longissimo horizontalis v. nutans magna longiuscula turgide arcuato-cylindracea, operc. e basi convexa acuminato; perist. robusti d. ext. valde cristati, int. lati rugulosi subhiantes flavidi, ciliis ternis longis albidis subappendiculatis.



*Patria.* In Malabaria et in monte Gédé Javae insulae: Reinwardt.

Annulus? Ex habitu *H. umbrato* quoque simillimum.

382. *H. disparifolium* Tayl. (Lond. Journ. of bot. 1848. p. 195.); *dioicum?* procumbens implexum subpinnatum pallide flavide viride, ramis brevibus, superioribus falcatis; folia caulina imbricata secunda, e basi lata paulisper decurrente cordata longius apiculata, enervia, ramea lanceolata acuminata; theca in ped. laevi subunciali apice curvato subcernua subsphaerica, operc. longius rostrato; perist. int. d. rarius ciliis solitariis brevissimis filiformibus interpositis. †.

*Patria.* Monte Pichincha Andium Quitensium: W. Jameson, Dec. 1846.

Ex animadv. auctoris *H. flagellari* simile, sed notis cursive impressis distans.

#### Incertae sedis.

1. *H. Mertensii* Weinm. (Bull. soc. imp. d. Moscou 1845. p. 488.); caulis decumbens dense cespitosus vage pinnatimque valde ramosus flexilis rigidus quadriuncialis, ramulis valde inaequalibus subsimplicibus, apice parum attenuatis v. aequalibus v. paulisper curvulis, dense confertis; folia arcte imbricata ovato-lanceolata acuminata, concava, hyalina, subsecunda, a medio ad apicem usque serrulata, elongate angustissime lineari-areolata, nervo ultra medium evanido; perich. ext. lanceolata, int. longissime producta enervia, apicem versus serrulata; theca in ped. laevi, in ramis propriis orto, purpureo solitario brevi, apice curvato, parva ovata cernua laevis. †.

*Patria.* Sibiria: Mertens in Hb. Acad. Sc. Petrop.

Peristomium tantum vetustum et semidestructum auctor, qui Hypnis triquetris adnumeravit, vidit. Ad *Strigodium* magis, quam ad *Anacamptophyllum* pertinere videtur.

Subsectio IV. *Anacamptophyllum.* Caulis ascendens dichotome vel pinnatim ramosus; folia reflexo-squarrosa.

A *Rigodio* notis laudatis differt; a *Strigodio* foliis distincte reflexis distat.

A. *Pusilla.*

383. **H. Halleri** Linn. jun. (Meth. Musc. p. 375.); *monoicum*; cespites *latissimi humiles rigidi ex aeruginoso lutescentes et aurescentes*; caulis longe prostratus repens, ramis *humilibus ascendentibus dense approximatis tenerrimis subsimplicissimis subpinnatim ramosus*; folia *caulina maxime squarroso-patentia, minuta, amplexantia, ovata, breviter et valde reflexe acuminata*, margine infima basi angustissime revoluta, denticulata, nervis binis brevissimis obsolete, cellulis parvis lutescentibus firmis, alaribus vix ullis minutissime quadratis; perich. e basi longe et anguste vaginante in acumen longiusculum vix reflexum attenuata, subintegerrima enervia, ubique longius et pellucide areolata; theca in ped. longiusculo tenero laevi aurantiaco *inclinata, cylindracco-oblonga cernua tenella, aurantiaca, annulata, operc. brevissime conico*; perist. d. ext. lutei, intus valde cristati, int. pallidi tenerrime punctulati angustissimi perforati, ciliis binis longis tenerrimis nodosis albis.

Hedw. Musc. Fr. IV. p. 53. t. 21. — *H. Stereodon Halleri* Brid. II. p. 603.

*Patria.* In subalpinis et alpinis totius Europae, ad rupes irriguas. In Helvetia primus legit Haller. In America septentrionali ad Portage River in Rocky Mountains legit Drummond.

E characteribus declaratis facile discernendum, pulcherrimum.

384. **H. hispidulum** Brid. (Sp. Musc. II. p. 198.); *monoicum*; *H. Halleri* simillimum, sed cespites virides, *nunquam aurescentes, caulibus ramisque humore mollissimis*; folia *caulina patentissima, sed vix reflexa, e basi orbiculari sensim in acumen vix reflexum longiuscule acutatum* attenuata, e cellulis mollioribus virentibus composita; theca longius pedunculata, operc. conico *brevissime oblique mucronato.*

*H. Stereodon stellatus*  $\delta$ . *hispidulus* Brid. II. p. 603. — *H. Halleri* var. ? Hook. et Wils. in Drumm. Musc. Amer. No. 147.

*Patria.* In America septentrionali, ubi Mühlberg in Pennsylvania detexit, non rarum, in siccioribus terrestre.

Ab *H. stellato*  $\beta$ . *tenello* mollitie partium omnium foliisque orbiculari-acuminatis differt.

385. **H. glaucocarpon** Reinw. (in Schw. Suppl. III. I. 2. t. 228.); *monoicum*; *H. Halleri* simillimum, sed folia multo majora, late orbiculari cordata acutius breviter acuminata, minus reflexa, maxime implana, valde serrulata, nervis binis longioribus distinctis tenuibus; perich. longius acuminata; theca in ped. longissimo strictissimo subflavido laevi apice valde arcuato nutans, e collo elongato anguste cylindraceo-oblonga, medio ventricosa, ore valde coarctata, haud cernua, glaucedine tenui oblecta, operc. conico-acuminato; perist. internum ciliis binis rudimentariis.

*H. venustum* Hsch. et Reinw. in Nov. Act. Acad. Caes. Leop. XIV. II. Suppl. p. 726. t. 41.

*Patria.* In insulae Javae monte Mulawar: Reinwardt.

### B. Robusta.

#### a. Folia enervia.

386. **H. aciculare** Brid. (Musc. Rec. II. II. p. 158. t. 5. f. 2.); *dioicum*; caulis primarius densifolius decumbens crassus, ramis elongatis crassis parcissime dichotome divisus lycopodioideo-decumbentibus stramineis, apice stellatim foliosis; folia caulina densiuscule conferta, humore maxime patentia, e basi coarctata erecta brevissima subplicata enervi latissime ovata, irregulariter rugulosa, caviuscula, in acumen robustum reflexum grossissime serratum producta, infra acumen denticulata, margine inferne revoluta, cellulis conflatis lutescentibus, basi flavis, alaribus vix conspicuis incrassatis flavis; perichaetia minuta, foliis paucis late convolutis pallidis obtusis, ex apice maxime obtusato in acumen breviusculum subreflexum

producta, subintegerrima, uti caulina reticulata; theca in ped. rigidissimo atro longiusculo laevi horizontalis longiuscule cylindraceo-oblonga fusca, octies sulcata, pachydermis, late annulata, operc. cupulato longissime subulato pallido flaccido, basi rubro; perist. d. ext. robusti rufescentes, breviter capillares fissura late diaphana notati, intus longe cristati, int. in membrana alta pallida angusti vix perforati, ciliis ternis brevioribus teneris nodosis.

Brid. II. p. 505. — Schw. Suppl. I. II. p. 280. t. 92. excl. *H. densifolio!* — *H. lycopodioides* Menz. Ms. — *H. nigrum* Banks. Hb. — *H. cucullifolium* P. B. Prodr. p. 62!

*Patria.* Per totum archipelagum antarcticum e freto Magellanico usque ad Van Diemen's Land, ubi La Billardièrè detexit, et ad Novam Hollandiam extratropicam, ubi Sieber legit.

Species e pulcherrimis. Notis laudatis ab *H. densifolio* simillimo differt.

**387. *H. densifolium*** Brid. (Sp. Musc. II. p. 204.); caulis densifolius *aureo-lutescens*, ramis brevibus apice stellatim foliosis dichotomus, minus crassus; folia caulina densissime conferta, *maxime reflexa*, *rufescentia* nitida, fragilissima, e basi *longa erecta amplexante valde plicata enervi subito maxime reflexa, oblongo-lanceolata, valde concava, acumine latiusculo brevi terminata*, margine inferne anguste revoluta, *superne denticulata*, cellulis conflatis lutescentibus, basi fuscis, alaribus ad alas nec impressas, nec coarctatas vix conspicuis incrassatis fuscis.

*Patria.* Insula Tristan d'Acunha Africae australis: Aubert du Petit Thouars ad terram sterile legit.

Ab *H. aciculari* proximo notis cursive impressis toto coelo distat.

b. *Folia binervia.*

**388. *H. loreum*** L. (Sp. Pl. p. 1593.); *dioicum*; caulis ascendens procerus robustus vage pinnatim ramosus fragilis, humore flaccidus, ramis divaricatis attenuatis

curvatis simplicibus v. elongatis iterum ramosis sordide viridibus; folia caulina dense conferta ubique inserta et *maxime squarroso-falcata*, e basi latissime *panduraeformi-ovata concava plicatâ subito in acumen longum reflexum latum concavum tenuiter attenuatum denticulatum producta, summa uncinata*, margine erecto *ad acuminis basin involutaceo*, nervis *brevibus obsoletis*, cellulis angustis subconflatis virescentibus, basi infima badiis, alaribus vix ullis; perich. valde exserta in cylindrum squarrosam arcte imbricata, basi laxius reticulata flavida; theca in ped. longiusculo valido purpureo laevi valde torto subnutans *maxime globose ovalis* badia firma exannulata, operc. concolori *hemisphaerico-conico mammillato*; perist. maximi d. ext. latissimi longissimi basi connati badii, apice lutei, intus breviter cristati, int. aequilongi maxime hiantes lati flavidi, in membr. alta valde et densissime reticulata positi, ciliis 2—3 aequilongis capillaribus nodosis pallidis.

Brid. II. p. 515. — *H. heterophyllum* Hoffm. Deut. Fl. II. p. 66. — *H. loreum*, montanum, capsulis subrotundis. Dill. Musc. p. 305. t. 39. f. 40.

*Patria.* E regione montana usque in alpinam ascendens, per totam Europam et Americam septentrionalem. — *Per hyemem et vere.*

Characteribus cursive impressis ab *H. triquetro* affini toto coelo differt.

**389. *H. squarrosus* L.** (Sp. Pl. p. 1693.); *dioicum*; *H. loreo* simillimum, sed *rami graciles* albescenti-virides; folia caulina *minora, minus falcata*, e basi late *ovata caviuscula haud plicatâ sensim in acumen reflexum subdenticulatum producta, summa stellata*, margine erecto, *haud involuto*, cellulis *mollibus hic illic papillosis*, alaribus *utrinque basi impressis laxis badiis*; theca *H. triquetri*.

Brid. II. p. 511. — *H. repens*, triangularibus foliis reflexis, majus. Dill. Musc. p. 303. t. 39. f. 38.

*Patria.* In locis uliginosis, praesertim graminosis totius Europae, Asiae et Americae septentrionalis, planities praeferens, rarius fertilis. — *Hyeme et vere.*

**390. H. triquetrum** L. (Sp. Pl. p. 1589.); *dioicum*; *H. loreo* simillimum, sed *strictius robustius*, laete viride; folia caulina *maxime patentia, haud falcata, multo latiora*, e basi *coarctato - vaginante maxime auriculato-dilatata hastato - lanceolata subreflexa, summa stellata*, margine *basi maxime involuto superne serrato*, nervis binis *longissimis in acumen plicatum folii productis tenuibus, cellulis intus et dorso dentibus sparsis valde scaberrimis*; perich. *H. lorei*; theca *magis oblonga arcuata, operculo magis conico.*

Brid. II. p. 508. — Hdw. Fund. Musc. I. t. 7. f. 37 — 46. — *H. sagittae-folium* Voit. Musc. Herbipol. p. 97. — Hypnum vulgare, triangulum, maximum et pallidum. Dill. Musc. p. 293. t. 38. f. 28.

*Patria.* In locis praesertim sylvaticis siccioribus usque in regionem montanam, sed rarius fructificans, per totam Europam vulgare, in America sept. haud commune. — *Auctumno seriore et hyeme.*

**391. Hypnum ulicon** Tayl. (Lond. Journ. of bot. 1847. p. 337.); caulis 2—3 uncialis ascendens implexus vage ramosus, ramis brevibus parum curvatis; folia laxè subsquarrosa pallide viridia tenera subplicata, cordata acuminata, mediotenus tenuiter uninervia, apice subserulata; perichaetia pallida, ad caulem principem oriunda sparsa; theca in ped. laevi suberecta ovata basi strumosa, operc. longirostro thecam aequante; perist. int. d. perforati, ciliis perforatis binis interpositis. †.

*Patria.* Monte Pichincha Andium Quitensium, Nov. 1846: Prof. W. Jameson.

*Pilotricho patulo* persimile appellatur.

Subsectio V. **Rigodium** Kze. Caulis *maxime vage ramosus*, plerumque valde intricatus; folia *remote disposita patentia, haud plicata.*

A *Plicaria* notis cursive impressis longinquum.

a. *Folia uninervia.*

α. *Pedunculus laevis.*

**392. H. implexum** Kze. (in schedulis); *dioicum*; cespites *latissimi depresso-procumbentes maxime implexi et duri*, e viridi lutescentes; *caulis maxime vage ramosus rigidissimus tenacissimus* crassiuscule filiformis, *ramificationibus tenerrimis elongatis vagis humore patentissimis*; *folia caulina valde squarrosulo-patentia*, parvula, basi cochleariformi-concava, plus minus speluncoso-plicata, latissime cordato-ovata, breviter stricte acuminata, margine inferne late revoluta, superne crenulata, nervo lato complanato pallido ante apicem evanido, cellulis incrassate ellipticis tenuissime papillosis sublaevibus pallidis firmis, margine magis incrassatis; perich. e basi longe vaginante valde reflexo-acuminata, margine ubique tenuissime serrulato, basi involutaceo, firma, incrassate areolata; theca in ped. purpureo flexuoso brevi laevi apice subarcuato oblonga aequalis fusco-badia, operc. breviter conico acuto; perist. int. d. subflavidi hiantes angusti, ciliis 2—3 albidis tenuissimis nodosis.

*Rigodium implexum* Kze. Schw. in Linn. XVIII. p. 559. t. 9. — *Hypnum Neei* Mohr. Hb. inedit. fide Hampe.

*Patria.* Chile, monte Antuco ignivomo Chiles australis 1829: Pöppig, dein Philippi

**393. H. brachypodium** C. Müll.; *dioicum*; *caulis repens vage ramosus breviusculus*; *rami breviusculi densifolii, pinnatim dispositi*, ramulis *brevibus inferne pinnulatis, apice simplici longiusculo sciuroideo praeditis*, e viridi lutescentes; *folia squarrosula, late cordato-ovato-lanceolata, tenera, caviuscula, haud plicata*, margine parum revoluta, nervo *crasso excurrente*, cellulis ubique minute rotundatis virescentibus; perich. pallida teneriora vaginanti-lanceolata reflexo-acuminata, subnervosa, margine haud connivente, superne crenulata; theca in ped. *perbrevis aurantiaco laevi apice arcuato horizontalis, subgloboso-ovata turgida aurantiaca*; perist. *H. implexi.*

*H. toxarion* Hmp. in litt.

*Patria.* Chile, Valparaiso.

Ab *H. implexo* et *toxario* notis laudatis certe distans.

**394. *H. toxarion*** Schw. (Suppl. I. II. p. 283.); *H. implexo* simillimum, sed folia *multo minora, cordato-lanceolata, excurrentinervia*, margine subintegerrimo *vix revoluto*, cellulis *minutissimis ubique aequalibus* praedita, *caviuscula*.

Brid. II. p. 443.

*Patria.* Hispaniola.

Fructus ignotus. Specimina, a Bridelio in Nova Hollandia dubie indicata, sterilia imperfecta novam speciem *H. delicatulo* affinem confirmant.

**395. *H. solutum*** Tayl. (Lond. Journ. of bot. 1846. p. 65.); caulis laxè implexus elongatus subpinnatus, flexuosus, ramis fasciculatis attenuatis; folia subimbricata, caulina late cordata *elongate apiculata* squarrosa, ramea ovata patentia, *omnia mediotenus uninervia*, minutissime serrulata; theca in ped. laevi flexuoso oblongo-ovata, incurvata, operculo rostrato; perist. d. int. foraminosi, ciliis *singulis filiformibus interpositis*. †.

*H. toxarion* Wils. I. c. p. 453.

*Patria.* Andes Quitenses, in cacumine m. Pisagua prope Otovalo, altitud. 10,000 pedum: W. Jameson.

Ab *H. implexo*, prorsus simillimo, characteribus curvis impressis distare videtur.

β. Pedunculus papillosus.

**396. *H. praelongum*** L. (Sp. Pl. p. 1591.); *dioicum*; cespites latissime effusi molliter rigidi *valde intricati* lutescenti-virides nitidi deplanati; caulis longe repens, ramis valde breviter divisis flexuosis *maxime vage ramosus*, rigidus, *ramulis saepius compressis*; folia caulina remote disposita patentia, *e basi late ovata inferne impressione subventricosa parum coarctatâ breviter acuminata, subcordata*, concava, estriata, margine infima basi reflexo, ubique serrulato, nervo ante apicem abrupto tenui subca-



rinato, cellulis angustissimis densis brevibus *subscariosis* virescentibus, alaribus *magis rectangularibus paucis subincrassatis*; perich. e basi anguste vaginante in acumen longiusculum reflexum attenuata, enervia, ubique denticulata et elongate pellucide reticulata; theca in ped. longiusculo recto ubique tuberculoso purpureo horizontalis, subcernua gibboso-ovalis, fusca, annulata, opere. conico longe oblique subulato rubro; perist. d. ext. longi rufescentes, int. longi angusti hiantes flavi laevissimi, ciliis 2—3 longis albis laevibus tenerrimis subappendiculatis.

Brid. II. p. 399. — Hdw. Musc. Fr. IV. p. 76. t. 29. — *H. Clarionis* Lam. et Dec. Fl. Franç. I. p. 320. — *H. atrovirens* Sw. Musc. Suec. p. 65. excl. Syn. Dill. et Dicks. — *H. repens*, triangularibus parvis foliis, praelongum, Dill. Musc. p. 278. t. 35. f. 15. A. C.

*H. hians* Hdw. Sp. Musc. p. 272. t. 70 forma robustior vix appellari potest. — Brid. II. p. 456. — *Pterigynandrum apiculatum* Brid. II. p. 195 ex specimine Hb. Bridelii unico pessimo huc revocandum est.

*β. scariosum*; caulis subrobustus; folia minute serrulata, e cellulis fere in membranam homogeneam conflatis composita, saepius complicato-concava. *H. Swartzii* Turn. Musc. Hib. p. 151. t. 14. — *H. praelongum δ. atrovirens* Brid. II. p. 402 ex parte. — *H. Schleicheri* Hdw. fil. in Web. et Mohr. Beitr. I. p. 128. t. 7. — Brid. II. p. 403 ex parte, non Hb.! — *H. scabrum* Koch. in Hb. Cand., in Brid. II. p. 403 memoratum! — *H. praelongum ζ. speciosum* Brid. II. p. 403 partim huc pertinet.

*Patria.* Per totam Europam ad terram umbrosam, ligna putrida et saxa, praecipue in graminosis. Var. *β.* zonam montosam amans. — *Primo vere.*

E statura valde variat, sed foliis hianti-patentibus subscariose areolatis, cellulis alaribus paucis subincrassatis facile discernibile, notis cursive impressis ab *H. Stokesii* toto coelo distans.

397. **H. Regnellii** Hmp. (in litteris!); *hermaphroditum!* *H. praelongo* simillimum; folia latius cordata, pellucida, haud virentia, minus serrata; theca in ped. *parum scabro* omnino *H. praelongi*; perist. int. ciliis vix appendiculatis *rugulosis*.

*Patria.* Brasilia, Minas Geraës ad Caldas: Regnell No. 359.

398. **H. Stokesii** Turn. (Musc. Hib. p. 159. t. 15. f. 2.); *dioicum*; *H. praelongo* simile, sed caulis validior magis prostratus, *distincte pinnatus, ramulis tenerrimis iterum irregulariter pinnatis haud distichaceo-foliosis*; folia caulina remota squarrosa, *latissime cordato-ovata, acumine reflexo longiusculo terminata, concava, margine ad alas basilares maxime ventricosas decurrentes laxè quadrate reticulatas pellucidas valde convexo*, ubique serrulato, nervo in acumen evanido tenui, cellulis brevibus densiusculis virentibus; ramulina *plumulose imbricata, anguste lanceolata, basi vix impressa, grossius serrata, nervo ultra medium abrupto*; perich. maxime squarrosa, multo latiora, obsoletinervia v. enervia; fructificatio omnino *H. praelongi*.

*H. praelongum*  $\gamma$ . *Stokesii* Brid. II. p. 401. — *H. Fulgeriense* La Pyl. in Hb. Brid. — *H. rigidiusculum* Blandow in Musc. Exs. Fasc. V. No. 230! — *H. Ludwigii* Brid. in schedis. — *H. orthorhynchum* Brid. Sp. Musc. II. p. 106! — *H. praelongum*  $\eta$ . *orthorhynchum* Brid. II. p. 403. — *H. pseudo-delicatulum* Raddi in Opusc. Scientif. Di Bol. II. p. 360, fide De Notaris.

*Patria.* In rupibus Hiberniae excavatis infra nidos Aquilarum prope locum Lough-Bray primus legit Stokes; praeterea hic illic per totam Europam, praeprimis in regionibus septentrionalibus planitiei, ubi locis iisdem ac *H. praelongum* haud raro legitur. Ad Cap. Disappointment Americae occidentalis ad flumen Columbia lectum nobis dedit am. Hampe. — *Hyeme.*

399. **H. reflexum** Starcke (in Web. et Mohr. Bot. Taschenb. p. 306 et 476.); *monoicum*; cespites latissimi *deplanati sordide virides*; caulis longe repens, ramis *rigidiusculis filiformibus, ramulis brevibus teneris curvulis attenuatis laxè pinnatim dispositis*; folia caulina *dense conferta, humore erecto-patula, e basi late cordato-ovata, alis longe decurrentibus valde ventricose impressis instructâ hastato-acuminata, subcarinata, margine infima basi convexo, sursum erecto serrulato, nervo subvalido*

viridi in acumen subreflexum plus minus longum cuspidatum evanescente, cellulis parvis firmis pellucidis vel virescentibus, alaribus permultis quadratis parum majoribus pellucidis v. intus granulosis; perich. pallida appressa, e basi late vaginante profunde concavâ in acumen breve reflexiusculum producta, enervia v. obsoletinervia, subdenticulata, laxe pellucide elongate reticulata; theca in ped. mediocri rubro *ubique valde tuberculoso horizontalis, turgide globoso-ovalis brunnescens*, operc. conico brevi; perist. d. ext. subintegri lutei, int. flavi hiantes laeves, ciliis 2 — 3 longis albis valde appendiculatis.

Brid. II. p. 461. — Schw. Suppl. II. I. p. 161. t. 143. — *H. populeum* Drumm. Musc. Amer. No. 176! — *H. Grimsulanum* Schimp. in litteris! forma microcarpa, laete viridissima et minus rigida est, ab auctore alpe Grimsel prope Hospitium et a Sendtner in alpi-bus Algovicis Bavariae observata! — *H. tenax* Drumm. Musc. Amer. No. 225!

*Patria.* Per zonam subalpinam et alpinam totius Europae, ad lapides, terram et radices arborum. Ad pedem montis Schneeberg Sudetorum detexit Seliger. In terris arcticis Lapponiae nondum observatum. In Canada ad lapides prope Lake Superior et rupes flum. Portage River: Drummond. — *Auctumno.*

Characteribus designatis facile discernendum. Variat foliorum longitudine atque areolatione plus minus pellucida laxa, pedunculo scabro et theca turgescente. Formis minoribus *H. umbrati* haud dissimile, *H. Stokesii* proximum.

400. *H. laxifolium* Schw. (Suppl. II. 2. p. 159. t. 143.); *dioicum?* caulis longe repens subvalidus prostratus, radicans, rigidus; distincte pinnatus, ramis breviusculis flexuosis simplicibus vel longioribus iterum pinnulate ramulosis, attenuatis, virescentibus; folia caulina laxe imbricata, subsquarrulosa, e basi longius decurrente deltoideo-ovata breviter acuminata, ramea ovata, *omnia acumine subobliquo nunquam reflexo*, concava, serrata vel denticulata, nervo in acumen evanido obscuro, cellulis minutissimis; perich. oblongo-vaginantia, *erecta*, longe

flexuose acuminata, apice summo subdenticulata, enervia; theca in ped. brevi tuberculoso rubro horizontalis globoso-ovata badia, operc. conico breviter oblique acuminato; perist. *H. praelongi*, ciliis internis brevioribus. †.

*Isothecium laxifolium* Brid. II. p. 359. — *Leskea laxifolia* Hook. Musc. Exot. t. 30.

*Patria.* In plaga occidentali Americae borealis in terra: Menzies 1791.

Ab *H. Stokesii* proximo characteribus declaratis refugit.

401. *H. crispifolium* Hook. (Musc. Exot. t. 31.); dioicum; caulis longe repens prostratus maxime vage ramosus; rami breviusculi simplices validiusculi vel elongati iterum brevissime ramulosi, omnes pinnatim divisi attenuati obtusiusculi sordide lutescentes; folia dense imbricata, humore erecto-patula, luteo-viridia opaca, subfalcato-secunda; caulina latiuscule deltoideo-ovata, in acumen longum crispatum attenuata, subundulato-rugosa, ubique irregulariter erose denticulata, flaccida mollia crassiuscula, basi longe decurrentia, ubique rotundate minute areolata, nervo longo valido; ramea basi magis lanceolata, angustiora; perich. erecta, e basi breviter ovata longissime acuminata obsolete nervia serrulata; theca in ped. brevi purpureo tuberculoso horizontalis oblongo-ovalis, badia; perist. *H. praelongi*. †.

Schw. Suppl. III. II. 1. t. 262. — *Isothecium crispifolium* Brid. II. p. 360.

*Patria.* In plaga occidentali Americae borealis: Menzies 1791.

Ab *H. laxifolio* characteribus cursive impressis, ab *H. flagellari* jam pedunculo tuberculoso differt.

402. *H. Oreganum* Sulliv. (Mem. of the Americ. Acad. of Arts and Sc. IV. 1849. p. 172.); dioicum; caulis prostratus parce ramosus, haud compressus, rigidior, ramis dense pinnatis; folia e basi late cordatâ ovata longe acuminata serrulata magis striata nitidula tenuissime areolata, nervo ante apicem dissoluto; perich. nervosa; theca

in ped. muriculato oblonga cernua annulata, opere. conico longe rostrato. †.

*Patria.* Oregon Americae septentrionalis, inter Puget Sound et Columbia flumen.

*H. crispifolium* ejusdem regionis foliis opacis subpappilosis minute rotundate areolatis primo momento fide auctoris recedit. Ab *H. praelongo* peraffini statura latiore et characteribus caeteris explicatis distare dicitur.

*An huc pertinentia?*

403. **H. cordatum** Harv. (in Hook. Ic. Pl. Rar. t. 24. fig. 9.): caulis ascendens vage pinnatus; folia cordato-ovata brevissime obtuse acuminata, serrata, distantia, erecto-patentia, margine basi patula, nervo ante apicem evanescente; theca in ped. tuberculoso gracili horizontalis minute ovalis. †.

Cum diagnosi pauperrima in Lond. Journ. of bot. 1840. p. 20.

*Patria.* Nepal; Wallich.

*H. praelongo* proximum videtur.

404. **H. oxyrrhynchum** Dz. et Molkb. (Ann. sc. nat. 1844. p. 308.); caulis repens intricato-ramosus, ramis simplicibus procumbentibus, folia laxè disposita erecto-patula, subcordato-lanceolata acuminata subserrulata, nervo ad medium evanido, nitentia; perich. erecta apice recurva oblonga, in cuspidem filiformem subserrulata contracta, enervia; theca in ped. apice asperulo inclinata oblonga incurva; opere. conico-acuminato obliquo. †.

*Patria.* Java.

b. *Folia binervia vel enervia.*

405. **H. Schlosseri** Sendtner (in litteris); *H. implexo* simillimum, sed folia remotius squarrulosa, nitidula viridiora, e basi brevissime coarctata amplexicauli latissime truncata profunde et perfecte cochleariformi-ovata brevissime acuminata, haud plicata, tenera viridia, laevissima, margine ubique erecto integerrimo, nervis binis

*vix conspicuis brevibus obsoletissimis*, cellulis brevibus ellipticis.

*Patria.* Nova Hollandia. Sendtner communicavit.

406. **H. tenue** C. Müll.; *dioicum*; cespites plani longe prostrati rigidi intertexti lutescentes; caulis longe repens tenuis flexuosus, ramis humilibus tenuibus in ramulos brevissimos tenuissimos remotiusculos varie incurvos divisis, ascendentibus pinnatim dispositis vage ramosissimus, laevis; folia caulina conferta, humore et siccitate squarruloso-erecta, parvula, *suborbicularia vel cordato-subrotunda*, breviter apiculata, concava, vix plicata, margine inferne reflexo, denticulato, superne serrulato, nervis binis brevissimis obsoletissimis vix conspicuis, cellulis minutis densis scariosis lutescentibus, alaribus ad alas basilares convexas parvis, sed multo laxioribus pellucidis quadratis teneris; perich. appressa, e basi vaginante in acumen subloriforme reflexum summo apice denticulatum attenuata, enervia, ubique laxissime tenerrime pellucide elongate reticulata, striata vel undulata; theca in ped. longiusculo rigido purpureo *laevi erecta* oblonga, operc. convexo *rostrato incurvo* breviori; perist. d. ext. breves lutescentes fragiles obsoleti anguste lanceolati, int. *rudimentarii*, ciliis *rudimentariis latis singulis*.

*Leptohymenium tenue* Schw. Suppl. III. 1. 2. t. 246. C. — *Pterigynandrum tenue* Brid. II. p. 187. — *Pterogonium tenue* Schw. Suppl. II. I. p. 30. t. 108! — *Neckera tenuis* Hook. Trans. of Linn. Soc. IX. p. 315. t. 27. f. 3.

*Patria.* Nepal: Buchanan.

*H. reflexo* simile, sed characteribus supra laudatis paucis jam distinctissimum et pulcherrima species.

407. **H. discriminatum** Mont. (in litt.); *dioicum*; procumbens robustum vage ramosum, ramis *crassiusculis squarroso-turgidis*, flexuosis longiusculis nitenti-lutescentibus; folia caulina *maxime squarroso-patula*, e basi *angustiore latissime rotundato-ovata obtusa*, brevissime *acuminata*, caviuscula, margine erecto, superne serrulato, nervis binis brevibus tenuibus pallidis, cellulis pallidis

incrassate angustis ellipticis, alaribus paucissimis vix ullis minutis laxioribus pellucidis; theca in ped. longiusculo crasso laevi aurantiaco subhorizontalis *magna turgide ovalis subcernua* fuscidula, late annulata, operc. conico obtuso; perist. robustissimum *H. macrocarpi*.

*Patria.* In montibus Neelgheriensibus: Perrottet.

Ab *H. flagellari et macrocarpo* proximis statura robusta et notis cursive impressis primo visu differt.

408. *H. serratum* P. B. (Prodr. p. 70.); caulis *arcuato-decumbens* remotifolius, vage ramosus radicans, ramis brevibus parce divisis laxifoliis pallescentibus; folia caulina patentissima reflexiuscula, ramea patula, omnia anguste ovato-lanceolata, concava, margine infima basi reflexo, ubique serrulato, nervis binis inaequalibus pallidis tenuibus, cellulis angustissimis *elongatis molluscis veluti striate areolata*, pallide viridia, alaribus ad alas basilares vix impressas vix ullis minutissime quadratis; perich. longiora angusta subcapillacea subserrata enervia; theca in ped. subtriunciali flexuoso subcylindrica inaequalis.

Brid. II. p. 504.

*Patria.* Insula Bourbonis, ad terram: Bory St. Vincent.

Sterile tantum in Hb. Bridelii observavimus.

409. *H. oxypoma* Schw. (Suppl. III. II. 1. t. 259.); *monoicum*; caulis repens vage ramosus, ramis in ramulos breves pinnatim divisis, lutescentibus squarrulose foliosis; folia sparsa, densiuscule conferta, patula, *cordato-ovata parvula, superiora acuminata*, denticulata, concava, valde pellucida, pallide viridia, enervia (?), e cellulis oblongis superne angustioribus areolata; perich. squarrulosa, in acumen longiusculum producta; theca in ped. mediocri laevi, apice parum arcuato horizontalis oblonga, junior teres parum inaequalis, luteo-fusca; operc. *conico recte acuto* concolori; perist. d. ext. ferruginei, int. flavi solidi, ciliis *singulis* longis articulatis pallidioribus. †.

*Patria.* Brasilia: Pohl.

*H. elegantulo* observante auctore affine, characteribus paucis laudatis refugientibus diversum videtur.

410. **H. Jamesoni** Tayl. (Lond. Journ. of bot. 1846. p. 63.); caulis tripinnatus procumbens, ramis *tenuibus*; folia remotiuscula patentia, caulina cordata longius acuminata subintegerrima, ramea ovata acuta denticulata, omnia *enervia* (?) substriata; theca in ped. *elongato laevi* apice deflexo in collum thecae abeunte late ovata *pendula*, operc. conico-rostellato; perist. d. ext. elongato-acuminati, int. perforati, ciliis 2—3 filiformibus brevioribus interpositis. †.

*H. asperum* Hook. Mst. fide Wilson l. c. p. 453.

*Patria.* In sylvis occidentalibus montis Pichincha Andium Quitensium: W. Jameson 1845.

Ex animadv. auctoris ab *H. praelongo* affini notis cursive impressis distare dicitur.

#### Incertae sedis.

411. **H. lepturum** Tayl. (Lond. Journ. of bot. 1846. p. 64.); caulis cespitosus procumbens, ramosus, ramis brevibus subincurvis lucidis pallidissime subargenteo-vidibus, gracillimis; folia arcte imbricata subsecunda erecta lanceolata acuminata, ad caulis apicem longiora subpilifera, subserrulata v. integerrima, basi laxe reticulata, margine basi vix reflexa, mediotenus uninervia. †.

*Patria.* Nova Hollandia, ad Swan River: James Drummond.

*Hypno reflexo* auctor subaffine descripsit.

Subsectio VI. **Plicaria.** Caulis pinnatim vel vage dichotome ramosus, *decumbens*; folia *distincte plicata*, rarius subsecunda.

A. *Caulis magis regulariter pinnatus.*

*Folia uninervia.*

412. **H. Blandowii** Web. et Mohr. (Bot. Taschb. p. 332.); *monoicum*; *H. abietino* simillimum, sed caulis *mollis*, *haud rigidus fragilis*, foliis densissime imbricatis



*squamoso-foliosus*, pallide ferrugineus *subsericeus* superne viridis, filis *elongatis tenuissimis laevibus remote articulatis maxime ramosis subtomentose intertextis* obtectus, *ditissime fertilis*; folia caulina subsquarrulose imbricata, e basi longe decurrente angusta complicatâ latissime ovato-acuminata, profunde complicato-plicata, margine hic illic valde revoluta, papillis scabro, basi saepe confervoideo-ciliato, nervo viridi ante apicem evanido, cellulis brevibus pellucidis anguste laxis mollibus, dorso remote papillosis, basi multo pellucidioribus laxioribus; perich. omnino pallida, late lanceolato-acuminata, elongate anguste pellucide reticulata; theca in ped. elongato rufo laevi horizontalis arcuato-cylindrica pallida, annulata, operc. conico; perist. robusti d. int. latiusculi vix hiantes flavidi, ciliis binis albis.

Schw. Suppl. II. I. p. 158. t. 142. — *H. Stereodon Blandowii* Brid. II. p. 577. — *H. affine* Crome Nachlief. 2 n. 20., non Hoffm., quod ad *H. filicinum* pertinet. — *H. laricinum* Wils. in Hook. et Arn. The Bot. of Capit. Beechey's Voyage p. 120! e Kamtschatka relatum et in Hook. Brit. Fl. ed. II. Part. I. p. 87; c. ic. in Engl. Bot. Suppl. t. 2760.

*Patria.* In pratis profunde uliginosis Germaniae septentrionalis planae, ubi pr. Waren Megapolitanum oppidum detexit Blandow, Finlandiae, Sueciae, Norvegiae, Kamtschatkae et Americae septentrionalis, ubi Drummond legit. In rupibus madidis Britanniae pr. Tunbridge dom. Woods ex Hookero legisse dicitur. — *Majo, Junio.*

Pulcherrima species, cum alia nunquam confundenda!

413. *H. paludosum* Sulliv. (Musc. Allegh. No. 7!); *dioicum*; cespites erecti elati molles viridissimi; caulis erectus flexuosus *subtenuis* densifolius, filis maxime ramosis elongatis tenuissimis multo paucioribus valde articulatis obtectus, ramis multo tenerioribus brevibus simplicibus attenuatis flexuosis laxè pinnatus; folia caulina laxè conferta, late ovato-lanceolata in acumen latum strictiusculum attenuata, basi haud decurrentia, profunde concava, rugulose plicata, sed magis regularia, subinte-

gerrima, margine e basi usque ad summum apicem maxime revoluta, sublaevissimo, nervo canaliculato in acumen evanido longo viridi, cellulis brevibus angustissimis incrassatis sublaevibus virentibus, alaribus parvis quadratis diaphanis vel badiis paucis; perich. vaginantia, profunde plicata, longius lanceolato-acuminata, nervo in acumen evanido, cellulis basi elongatis pellucidis laxiusculis; theca in ped. elongato aurantiaco horizontalis, cylindracea arcuata, annulata, operc. conico brevissimo; perist. d. ext. robusti rubiginosi, int. flavi, vix hiantes, ciliis 2 - 3 albis capillaribus.

*Patria.* America sept., ubi Sullivan t 1850 in editoribus Ohionis septentrionalibus paludibus, Cranberry Marshes dictis fertile legit et nobis humanissime communicavit.

*H. Blandowii* habitu simile, sed characteribus laudatis toto coelo diversum; ab *H. Oakesii* jam caule pinnato foliisque integris distat.

414. **H. Pyrenaicum** Spruce (Musc. Pyren. n. 4.); *dioicum*; caulis procumbens *crassus*, filis tenuibus geniculato-ramosis obtectus, ramis *crassiusculis dense foliosis simpliciter pinnatus*, lutescens; folia caulina patentia, e basi angusta late ovata, longius et late acuminata, concava, valde plicata, margine ad apicem usque fere revoluta superne valde acute serrato, nervo unico ultra medium producto rarissime superne bifurco canaliculato, cellulis *H. umbrati*.

Cum descriptione in Ann. and Mag. of Nat. Hist. 1849. Musc. Pyr. No. 6. t. 12.

*Patria.* In summa zona sylvatica montis Crabioules Pyrenäorum, saxa caulibus implexis dense obtegens: Spruce. In alpibus Helveticis et Tirolensibus: W. P. Sch.

Ab *H. umbrato* characteribus designatis facillime distinguitur.

*Folia binervia.*

415. **H. splendens** Hdw. (Sp. Musc. p. 262. t. 67.) ; *dioicum* ; cespites latissimi laxi prostrati sordide lutescentes sericei ; caulis assurgens crassiusculus, ramis rigidis gracillimis eleganter breviter pinnatis, apice longius producto subcuspidato tenerrimo flexuoso praeditis, densissime approximatis veluti verticillatim dispositis recurvis bipinnatus, apice flagellis geniculate ascendentibus innovans, filis tenerrime filiformibus parce divisis curvatis obtectus ; folia caulina erecto-patula late ovata, breviter acuminata, plicatula, caviuscula, scarioso-membranacea, viridissima margine erecto, summo apice crenulato, nervis binis brevibus, cellulis brevibus conflatis, basi una cum alaribus badiis incrassatis ; perichaetia longe exserta turgida, foliis appressis pallidis late lanceolatis longe acuminatis integerrimis elongate angustissime basi laxe flavide reticulatis binervibus ; theca *H. umbrati*, perist. interno valde hiante.

Brid. H. p. 435. — *H. parietinum* L. Syst. Pl. p. 1590. — *H. proliferum* L. Mant. p. 507 ex parte. — *H. pinnatum* Lamk. Enc. Meth. Bot. III. p. 168. — *H. filicinum*, Tamarisci foliis majoribus splendentibus. Dill. Musc. p. 274. t. 35. f. 13.

*Patria.* In umbrosis humidiusculis per totam Europam, Americam septentrionalem et Asiam septentrionalem, vulgatissimum, sed rarius fertile. — *Vere.*

Ob vestigia laudata ab *H. umbrato* toto coelo distat.

416. **H. umbratum** Ehrh. (Crypt. Exs. n. 66.) ; *monoicum* ; caulis procumbens vage ramosus, filis cellulosis rigidis maxime spinoso-ramulosis obtectus, assurgens, ramis rigidissimis brevibus irregulariter bipinnatus ; folia caulina squarrosulo-patula, late cordato-ovata breviter acuminata, caviuscula, plicata, margine basi paulisper revoluta, ubique remote irregulariter acute serrulato, nervis binis brevibus viridibus, cellulis viridibus, alaribus pluribus badiis ; perich. squarroso-reflexa, late lanceolato-acuminata, superne serrulata, margine erecto, nervis nullis, cellulis basi laxis badiis ; theca in ped. plus

minus longo arcuato-flexuoso purpureo laevi crasso horizontalis *maxime turgide subgloboso-ovata brevis* subcernua, badia, annulata, operc. conico acuto brevi; perist. *H. macrocarpi*.

Brid. II. p. 433. — Hdw. Sp. Musc. p. 263. t. 67. — *H. proliferum*  $\beta$ . *umbratum* Wahlenb. Fl. Lapp. p. 373.

*Patria.* Ad saxa, terram et truncos putridos arborum sylvarum altissimarum umbrosarum zonae montosae editioris et alpinae inferioris Germaniae, ubi in Hercynia primus legit Ehrhart, Gothiae et Sueciae, Pyrenaeorum et in America septentrionali. Rarum. — *Vere.*

Ab *H. macrocarpo* simili characteribus laudatis facillime distinguitur. *H. splendenti* haud dissimile, sed statura robusta horride rigida primo adspectu jam recedit.

**B. Caulis irregulariter dichotome ramosus.**

a. *Folia binervia.*

417. **H. ericoides** C. Müll.; *dioicum*; *caulis longissimus, ramis elongatis simplicibus v. parcissime breviter dichotomis crassis obtusissimis stramineo-nitidis densifoliis pluries divisus*; folia caulina *dense conferta, apice recurvo subsquarrosa, latiuscule ovato-acuminata, acumine brevi, pluries plicata, concava, integerrima, nervis binis brevissimis obsoletissimis v. nullis, conflata areolata scariosa*; perichaetia *longe cylindrica, foliis longe convoluta-acuminatis estriatis*; theca in ped. *brevi gracili laevi rubro erecta, cylindrico-oblonga, octies sulcata, brunnea, operc. convexo longissime aciculari rectiusculo*; perist. d. *robustusculi badii, fissura obscura notati, int. angusti subflavi solidi, ciliis rudimentariis?* †.

*Leskea ericoides* Hook. Musc. Exot. t. 28. — Schw. Suppl. II. I. p. 152. t. 140. — Brid. II. p. 293.

*Patria.* Dusky-Bay Novae Seelandiae: Menzies 1791.

Signis datis facile cognoscendum. An caulis decumbens vel pendulus, latet; ex *H. aciculari* analogo probabiliter decumbens erit. *Neckerae flexili* habitu ex iconibus haud dissimile est.

418. **H. ptychocarpon** Schw. (Linn. XVIII. 1844. p. 561. t. 10.); *dioicum*; *caulis longissimus decumbens gracilis flexuosus foliosus, ramis remotissimis patentissimis brevibus simplicibus v. longioribus et iterum remote patenti-divisis, uti caulis siccitate ob folia laxa conferta compressis, humore remotifoliis, lutescentibus perangustis; folia caulina madore patentia, late rotundate ovata breviter acuminata, subcochleariformi-concava, pluries regulariter plicata, margine late convexo subintegro, nervis binis tenuibus obsolete v. nullis, cellulis scariosis pallidissimis conflatis, basi fuscis, alaribus ad alas convexas vix ullis incrassatis intense fuscis; perichaetia angustissime cylindrica exserta fusca, foliis subconvolutaceis angustis, apicibus subreflexis, enervibus, conflatae areolatis, aureo-coloratis, integerrimis; theca in ped. mediocri gracili rubro laevi subhorizontalis, anguste cylindrico-oblonga 8-sulcata, fusca; perist. d. ext. breviusculi, fissura diaphana notati, int. subperforati pallidi, ciliis binis aequilongis.*

*Leskea?* *Gayana* Mont. Ann. sc. nat. 1845. 4. p. 95. — Hist. de Chile, auct. C. Gay, Bot. Crypt. t. 3. f. 4. — *Hypnum Gayanum* Mont. in litteris.

*Patria.* Chile australis, ad corticem arborum, Valdivia et Colenagna: Cuming, Philippi, C. Gay.

Notaculis illis variis expositis rite discernendum, e sectione *H. aciculari* affinissimum.

419. **H. brevirostrum** Ehrh. (Pl. Exs. No. 85.); *dioicum*; *caulis longissime repens squarrosifolius; divisiones permultae decumbentes v. assurgentes rigidae fragiles, ramis gracilioribus incurvis squarrosifoliis attenuatis apice gemmaceis vage subdendroideo-ramosae, apice haud stellatim foliosae, lutescentes, in axillis foliorum radiculis brevissimis acutissimis tubulosis pallidis dense obtectae; folia caulina laxa conferta erecta, humore valde patentia, e basi coarctata majusculè auriculatâ late ovata, apice utrinque sinuato, in sinu acumine lato breviusculo terminata, haud reflexa, ruguloso-plicata, cavitate pro-*

funda ante acumen canaliculatum plerumque abrupta, margine ubique erecto et argute serrulato, hic illic undulato, nervis binis tenuibus divergentibus dimidiatis, cellulis angustissimis densissimis scariosis subconflatis *laevissimis* lutescentibus, basi fuscis, alaribus ad alas basilares semel circinnato-involutas paucis incrassatis intense fuscis; perich. e basi latissime vaginante elongate laxae et incrassate reticulata fusca obsolete nervi in acumen longum valde reflexum scariose areolatum attenuata, denticulata; theca in ped. *breviusculo* rubro laevi flexuoso *inclinata*, e collo brevi oblonga aurantiaca nitida, sicca striata, late annulata, operc. *conico obtuso apiculato brevi obliquo*; perist. d. ext. robusti lutei, apice nodose serrulati, int. pallidissimi hiantes laeves, ciliis tenerrimis binis nodosis brevioribus.

Brid. II. p. 506. — Schw. Suppl. III. 1. 1. t. 225. — *H. triquetrum* var. Web. et Mohr. Bot. Taschenb. p. 354. — *H. erectum* Raddi, fide De Notaris.

*H. interruptum* Brid. Sp. Musc. II. p. 194 v. *H. brevirostrum*  $\beta$ . *interruptum* ej. II. p. 508 ex insula Bourbonis a Commerson relatum quoad specimina Hb. Bridelii sterilia huc pertinet; an fructus vero adhuc ignotus diversus, latet.

*Patria.* Praeter Scandinaviam Norvegicam et Lapponicam per totam Europam in umbrosis sylvaticis, e planitie usque in zonam subalpinam, ad terram atque radices arborum, haud rarum, sed parcius fertile. In Hercynia detexit Ehrhart oculatissimus. — *Vere.*

Ab *H. triquetro* proximo characteribus datis toto coelo differt.

b. *Folia uninervia.*

420. *H. striatum* Schreb. (Spic. Fl. Lips. 1771! p. 91.); *dioicum*; *H. brevirostro* simillimum, sed caulis *filis radicaeformibus destitutus*; folia siccitate quoque magis squarrosa, e basi *latissime cordato-ovata*, *alis impressis valde convexis praedita late lanceolato-acuminata*, haud *sinuata*, ruguloso-plicata, caviuscula, margine convexo serrulato, nervo *unico canaliculato ultramedio*, cellulis minus conflatis *ubique pallidis*, alaribus quadratis *pelluci-*

*dis*; perich. *ubique pellucide* laxe reticulata, obsoletinervia; theca in ped. laevi *elongato longiuscule cylindraceo-oblonga arcuata*, late annulata, operc. conico *longissime oblique rostrato*; perist. *H. brevirostri*, internum ciliis 2—3 subrugulosis.

Hdw. Musc. Fr. IV. p. 32. t. 13. — *H. longirostrum* Ehrh. Pl. Exs. 1787! No. 75. — *H. unguiculatum* La Tour. Chlor. Lugd. 33 et Schleich. in schedis. — *H. adianthum* Neck. Meth. Musc. p. 181. — *H. elasticum* Brid. Sp. Musc. II. n. 256. — *H. rutabulum* β. *cuspidatum* Web. Spicil. Fl. Gött. p. 92. — *H. vulgare*, dentatum, operculis cuspidatis. Dill. Musc. p. 297. t. 38. f. 30. B.

*Patria.* Per totam Europam, extra hyperboream, in sylvaticis umbrosis ad terram arborumque radices, e planitie usque ad zonam montosam. — *Primo vere.*

421. **H. Oakesii** Sulliv. (in Gray. Manual of Bot. p. 673.); *dioicum*; decumbens flexile viridi-lutescens nitens laxe cespitosum; caulis prostratus, ramis remotis longiusculis iterum pinnatis, v. simplicibus, v. parum divis, flexuosis *patentissimis strictiusculis compressiusculis* attenuatis *pinnatus*, filis maxime ramosissimis radiculiformibus obtectus; folia caulina *erecto-patentia* laxe imbricata, *late ovata longius acuminata*, concava, margine reflexo, supra basin *inaequaliter ciliato-dentata*, plus minus plicato-rugulosa, *nervo unico ad medium evanido*, cellulis angustissimis scariosis linearibus, basi fuscis, alaribus vix ullis fuscis; perich. numerosa squarroso-reflexa, vaginantia enervia, superiora longe capillari-acuminata, ad apicem tantum denticulata; theca in ped. *elongato* laevi tenui, *apice valde arcuato ovata*, *gibboso-inaequalis*, *ventricosa*, *valde pachydermis*, *deorsum spectans*, vix annulata, operc. conico brevi-rostellato; perist. d. ext. anguste lanceolati dense articulati, int. solidi, ciliolis binis capillaribus nodosis interjectis.

Cum ic. in Mem. of the Americ. Acad. of Arts and Sc. Vol. IV. New. Series 1849. p. 173. t. 5.

*Patria.* America septentrionalis, ad pedem tract. White Mountains Novae Angliae: *Oakes* beatus legit.

*H. brevirostro* Ehrh. proximum, sed notis distinctius expositis differt; ex caule ubique filis ramosissimis obtecto *H. umbrato* affine. Pulchra species.

422. **H. filescens** Brid. (Sp. Musc. II. p. 170.); *dioicum*; *H. striato* simillimum, sed minus; foliorum *minorum*, *marginē dense crenulorum*, *cellulae maxime conflatae* lutescentes et *alares minutissime quadratae incrassatae*, *intus granulosaē*; *theca in ped. breviorē breviter oblonga*, *haud arcuata*, annulata, *operc. conico breviter oblique rostrato*; *perist. H. striati*.

*H. meridionale* Schimp. in litteris! — *H. striatulum* Spruce in Musc. Pyr. 12. et Ann. and. Mag. of Nat. Hist. 1849. M. Pyr. No. 79! — *H. striatum var. Durieui* Mont. in Coll. Asturiensi. — *H. Hildenbrandii* Garov. fide Sendtneri, *cujus spec. quoque observare nobis licuit*. — *H. praelongum ε. filescens* Brid. II. p. 402! — *H. longirostrum β. Italicum* Brid. Hb. vel *H. Italicum* Brid. ms.! — *H. strigosum var. speciosum* Brid. Hb.! — *H. Stereodon muralis δ. subcirrhosus* Brid. II. p. 588; *H. brachycladon* Brid. in schedis.

*Patria.* Italia, circa Romam terrae arcte adhaerens implexum et in insula Ischia ad rupes in tractu vulcanico l'Arso dicto primus legit Bridel 1806; Istria, in fauce a Porto Pesacco sursum versus Pontiera exeunte: Sendtner 19. Majo 1843 c. fruct. deoperculatis; Hispania, locis non designatis: Requier; Gallia in vicinia Vallis Clausae (Vaucluse): W. P. Sch. Majo 1847; in Pyrenaeis occ. et centr. in saxis calcareis quibus arcte adnascitur: Spruce, in Pyrenaeis Asturiacis: Durieu; fide Sprucei quoque in Angliae et Hiberniae austrinis: Wilson, Thwaites, Mitten. — *Ad auctumni finem.*

423. **H. Neelgheriense** C. Müll; *caulis prostratus elongatus apice attenuatus rigidiusculus subcrassus*, *ramis breviusculis v. longioribus fasciculatis assurgentibus*, *siccitate apice incurvis crassioribus lutescentibus pallidis, haud sericeis*; *folia caulina sicca subsecunda, madore erecto-patentia, haud plumose imbricata*, *late ovato-lanceolata longiuscule et latiuscule acuminata stricta, multo robustiora*, *concava, laeviter plicata*, *marginē basi revolutō denticulato, superne serrulato*, *nervo canalicu-*



lato viridi *longe infra apicem evanido*, cellulis brevibus densissimis *scariosis*, alaribus ad basin parum impressam minutis quadratis firmis diaphanis paucis; perich. squarrosa, multo latius vaginantia, longe subpiliformi-acuminata erecta *enervia estriata*, apice *serrulata*, pallidissima, basi laxe reticulata; theca in ped. valido recto longiusculo rubro *laevi* erecta, cylindraceo-oblonga, submicrostoma, *haud cernua*; perist. internum ciliis *binis* brevioribus.

*Isothecium Nilgheriense* Mont. Ann. d. sc. nat. 1842. p. 246.

*Patria.* Ad rupes montium Neelgheriensium Indiae orientalis: Perrottet.

Peristomium examinare nobis haud licuit. Ab *H. sericeo* affini notis cursive impressis longe distat. Ab *H. Buchanani* haud dissimili foliis *scariosis* primo momento separatur.

**424. H. Bonplandii** C. Müll.; caulis primarius vage repens, secundariis creberrimis ascendentibus crassis densifoliis robustis, breviter ramulosis, sordide lutescentibus, subsericeis, apice subincurvis, *rigidis humilioribus*; folia densissime imbricata subsecunda, humore parum patula, rigida latissime ovata lanceolato-acuminata, *semel torta*, *leviter plicata*, concava, margine *basi infima tantum reflexo parum impresso*, cellulis alaribus quadratis *parvulis pellucidis firmis praedito*, *ubique denticulato vel apice serrulato*, nervo latiusculo viridi ultra medium evanido canaliculato, cellulis oblongis angustis *incrassatis scariosis lutescentibus*; perich. late vaginantia *sensim longe et tenuiter acuminata reflexa* enervia, basi laxe longe reticulata, *apice denticulata*; theca in ped. longiusculo flexuoso tortili rubro laevi *erecta cylindraceo-oblonga*, *microstoma*, operc. *longe subulato obliquo*; perist. ext. d. rufescentes, int. flavi, ciliis singulis rudimentariis interjectis.

*Leskea Bonplandii* Hook. in Kunth, Synops. Pl. Aeq. I. p. 61. — Brid. II. p. 318. — Schw. Suppl. IV. t. 321. — *Hookeria leskeoides* Hook. Musc. Exot. t. 55.

*Patria.* Peru, in sylvis Cinchonarum prope Loxam, reg. temperata, elev. 1080 hexapodum: Humboldt et Bonpland.

Ab *H. plicato* simili notis cursive impressis toto coelo refugit.

425. **H. euchloron** Bruch (in Hb. Hampeano!); *H. Bonplandii* simillimum, sed rami *magis flexuosi distinctius homomallophylli chlorophyllosi*, inferne ochracei; folia caulina *magis plicata strictissima*; perich. *strictissima nervosa*; theca in ped. parum brevior *subinclinata macrostoma* brevius cylindraceo-oblonga, *basi brevicolla*, operc. longe subulato obliquo; perist. d. int. in membrana alta albida tenera *valde hiantes*, ciliis *binis longiusculis* interpositis.

*Patria.* Montes Caucasici, prov. Abasia, in ligno putrido: Th. Döllinger 1836 legit.

426. **H. Wallichii** Hook. (in Schw. Suppl. III. I. 1. t. 219, non Bridel!); *dioicum*; caulis longe prostratus turgidus densifolius lutescens, ramis distantibus similibus turgidis brevibus simplicibus subincurvatis vage ramosus, rigidus; folia caulina ad caulis basin minuta remote squarrosa, apicem versus sensim densius imbricata, *siccitate crispate subsquarrosa*, humore laxe patentissima, majuscula, late *ovato-lanceolata loriformi-acuminata*, longitudinaliter *pluries complicato-concava*, nervo flexuoso pallescente canaliculato ad apicem usque fere producto, margine erecto, inferne denticulato, ad acumen rugulosum erose serrulato, cellulis *basi brevibus angustis densis laevibus*, sursum sensim *rotundis valde incrassatis scariosis tenuiter papillosis*, alaribus ad alas planas paucissimis minute quadratis diaphanis; perich. e basi vaginante laxissime pellucide reticulatâ *in acumen longissimum angustissimum loriforme tortum* attenuata, valde obsoletinervia veluti enervia, margine hic illic undulato subintegerrimo; theca in ped. elongato rubro laevi valido flexuoso subinclinata, longiuscule cylindrico-oblonga, sub-

cernua badia, operc. conico; perist. robusti d. int. flavilati solidi, ciliis binis longis articulatis pallidis.

*Patria.* Nepal Indiae: Wallich.

Habitu *Neckerae crispatulæ* simile, characteribus supra explicatis facile cognoscendum.

Non satis nota.

**427. H. fimbriatum** Hartm. (Skand. Fl. 5 Ed. p. 330.); caulis triuncialis, ramis raris et inaequalibus irregulariter pinnulatus, laete viridis, ramulis acutatis; folia caulina ovata breviter apiculata, concava, striatula, a medio serrata, serraturis inaequalibus angustis longioribusque, nervo ad vel supra medium protracto, interdum gemello. †.

*Patria.* In sylvis rarissimum, Helsingia in truncis Alnorum prope Hemstanäs, paroeciae Skog: R. Hartmann.

Ex animadv. auctoris inter *H. striatum* et *brevirostrum*, huic proximum, sed foliis minus divaricatis, apice brevioris nervoque distincto praeditis, ob serraturas subulatas quasi fimbriatis diversum. Non adhuc fructificans lectum. Species, si revera propria, ob *H. fimbriatum* nob. nomine novo ornanda; an *H. Oakesii* Sulliv.?

Subsectio VII. **Julia.** Caulis ascendens, foliis cochleariformibus dense appressis, nunquam secundis, perfecte teres, filiformis.

**428. H. julaceum** Villars (Pl. Dauph. III. p. 909. 1786.); dioicum; caulis erectus longiusculus filiformis tenuis aequalis julaceus fragilis, inferne compactus, superne ramis liberis inordinate dispositis julaceis paucis, e viridi albescentibus; folia caulina dense imbricata, profunde ventricose cochleariformi-ovata, obtusa et in apiculum plus minus distinctum producta, margine erecto subcrenulato, nervo gemello brevi, latiusculo, cellulis incrassatis rotundatis diaphanis scariosis dorso subpapillo-sis; perich. subvaginanti-lanceolata longiuscule acuminata, ad basin acuminis emarginato-dentata, obsoletinervia, e

cellulis laxis angustis badiis laevibus reticulata; theca in ped. longiusculo rubro laevi flexuoso subinclinata *minute urceolata*, exannulata, *basi brevicolla*, badia tenella, operc. *convexo acuto brevi*; perist. minuti d. ext. lanceolati laeves lutescentes trabeculati, int. aequilongi in membrana longa tenuiter reticulata albida angustissimi solidi albidii, ciliis singulis parum brevioribus.

Schw. Suppl. I. II. p. 216. t. 89. — *Isothecium julaceum* Brid. II. p. 365. — *Hypnum moniliforme* Wahlenb. Fl. Lapp. 1812. p. 376. t. 24. — *Leskea julacea* Schw. in Schultes Reise auf den Glockner II. p. 363. 1804.

*Pterogonium rotundifolium* Engl. Bot. t. 2525. — *Pterigynandrum tenerrimum* Brid. II. p. 196! — *Pt. fragile* Schl. Cent. IV. n. 6.

*Isothecium apiculatum* Hüb. Musc. p. 598, forma gracilior, foliis magis apiculatis! — *H. apiculatum* Hartm. Skand. Fl. Ed. V. p. 326.

*Patria.* In alpihus totius Europae, et Americae septentrionalis, haud rarum, sed rarissime fructificans. In monte Ceuse pr. Gap Delphinatus anno 1784 detexit Villars. — *Junio et Julio.*

Planta tenella notis laudatis facillime cognoscenda, solitaria.

429. **H. vagum** Hsch. (in Sieber: Musc. Nov. Holl. No. 23.); *dioicum*; caulis assurgens *crassiusculus maxime vage ramosus*; folia caulina *majora late ovata brevissime acuminata, haud apiculata*, subnervia; perich. *longe vaginantia pallidissima, plus minus reflexa*, enervia, e cellulis elongatis angustis *conflato-incrassatis pallidissimis areolata*; theca in ped. erecto flexuoso laevi longiore crassiore *purpureo subhorizontalis, oblonga*, operc. conico *subulato recto*; perist. *robusti* dentes ext. *latiusculi rufescentes*, int. *latiusculi flavidi perforati* aequilongi, ciliis *binis longiusculis tenuissimis nodosiusculis* albidis.

*Patria.* Nova Hollandia: Sieber.

Ab *H. julaceo* proximo notis cursive impressis differt.

430. **H. divulsum** Hook. et Wils. (Lond. Journ. of bot. 1844. p. 556.); caulis rigidus crassus subdendroideus

superne ramosus, ramis confertis subsimplicibus incurviusculis; folia patula laxè imbricata obovata rotundata concava obtusissima minutissima serrulata seminervia, punctulate areolata; theca in ped. laevi ovato-cernua, operc. conico-acuminato. †.

*Patria.* Terra Van Diemen: J. D. Hooker.

Ab auctoribus *H. vago* Hsch. (non *vaganti*, ut dicunt,) haud dissimile declaratur, foliis autem obtusissimis distare dicitur.

#### Incertae sedis.

431. *H. scariosum* Tayl. (Lond. Journ. of bot. 1846. p. 65.); caulis laxè implexus, ramis procumbentibus *subpinnatis* albide virentibus scariosis sericeis; folia caulina erecta, ramea patentia, omnia cordata *longius apiculata* serrulata mediotenus uninervia, estriata, *latiora*; theca in ped. *laevi* ovata inaequalis inclinata fuscescens; perist. int. ciliolis singulis interpositis. †.

*Patria.* Ad truncos arborum in sylvis pr. Esmeraldos Andium Quitensium, altitud. 7000 pedum: W. Jameson.

Ex auctore ab *H. plumoso* characteribus denotatis differt; e Wilson (l. c. p. 453.) ab *H. Megapolitano*, cuius varietatem putat, foliorum margine parum revolutò et areolatione firmiore distat. E descriptione ramis scariosis longe distare videtur.

432. *H. pendulum* C. Müll.; caulis tenuis longiuscule prostratus, ramis elongatis iterum ramulosis vel brevioribus attenuatis subflexuosis simplicibus; folia caulina laxè disposita, ovata denticulata minuta, opaca nigricantia, humore pellucida obscure viridia; perichaetia tenuia pallida; theca in ped. brevi nigricante minute ovalis horizontalis, dein pendula, operc. conico oblique rostrato. †.

*Isothecium pendulum* Brid. II. p. 765. — *Hypnum denticulatum* exiguum, pendulum, atro-virens Dill. Musc. p. 332. t. 43. f. 67.

*Patria.* Patagonia, unde habuit Dillenius, qui inter alios muscos arboreos specimina nonnulla legit.

Ex icone *H. praelongo* affine videtur et optandum est, speciem hancce a bryologis Anglicis e speciminibus Hb. Dillenii Oxoniensis brevi tempore accuratius confirmari.

Sectio VI. **Theliphyllum.** Caulis ubique foliosus, ramis dichotomis v. pinnatis, superficie inter folia filis in folia transeuntibus plerumque obtectus; folia *rotundate areolata*, ob papillas plerumque opaca, saepius carnososa.

Subsectio I. **Anomodon** Hook. emend. Caulis vage ramosus.

a. *Theca erecta.*

α. *Folia cochleariformia.*

433. **H. hirtellum** C. Müll.; *dioicum*; caulis longe prostratus apicem versus amoene attenuatus brevissime et densissime semel pinnatus, ad paginam inferiorem valde tomentosus, glaucus, pinnis simplicibus teretibus subincrassatis, filis folioliformibus planis pluries longe ciliatis superficie obtectus; folia caulina humore et siccitate dense imbricata, e basi semiamplexicauli ad alas parum decurrente late ovata profunde cochleariformia, in apiculum breve producta, margine ubique erecto, ob papillas dorso creberrimas hyalinas ciliaeformes scabro v. ciliato, nervo brevi saepius furcato tenui, cellulis ellipticis ob papillas obscuris; perich. multo latiora pallidiora vaginantia, lanceolato-acuminata, ad marginem longe et maxime lobato-ciliata, dorso scaberrima, nervo unico; theca in ped. breviusculo laevi rufo erecta cylindraco-oblonga ochracea leptodermis exannulata, operc. longe subulato obliquo leptodermi; perist. d. ext. longissime subulati angustissimi valde rugulosi carnosuli albidi, laevissime articulati, interni rudimentarii in membrana exserta lutea rugulosa, ciliolis rudimentariis; calyptra tenera pallidissima laevis.

*Leptohymenium hirtellum* Schw. Suppl. IV. in excurs. ad tab. 322! — *Pterogonium hirtellum* Schw. Suppl. I. l. p. 108. — *Pterigynandrum hirtellum* Hdw. Sp. Musc. p. 89. t. 18. f. 2—6. — Brid. II. p. 188.

*β. furcatum*; folia minus concava, molliora, ciliis marginis longioribus tenerioribus apice summo brevissime bifidis. *Leskea asperella* W. P. Sch. in litteris.

*Patria.* In arboribus et rupibus Americae septentrionalis arcte adhaerens passim degit. In Pennsylvania primus legit Mühlenberg.

*β. Folia ovato-acuminata.*

**434. H. polycarpum** Hoffm. (Deutschl. Fl. II. p. 67.); *monoicum*; late decumbens viridissimum rigidiusculum; caulis repens, ramis vagis ascendentibus, apice parum incurvis, tenuibus brevibus laxifoliis, filis brevibus paucis simplicibus chlorophyllosis obtectus; folia caulina crispate imbricata, humore subito laxa patula, plerumque subsecunda, *ovato-lanceolata falcata* integerrima concava, nervo *viridi* ante apicem evanido, margine basi tantum parum reflexo, cellulis rotundis chlorophyllosis viridibus; perich. *H. attenuati*, sed anguste acuminata; theca in ped. longiusculo laevi rubente tenui erecta cylindracea microstoma *pallidissima leptodermis, dein ochracea, late annulata*, operc. *conico recto*; perist. d. ext. siccitate valde involuti, humore elongati stricti, *angustissime lineari-lanceolato-acuminati, fusciduli, rugulosi* trabeculati, superne articulati, linea longitudinali obscura notati, int. in membr. altiuscula *fusca* aequilongi angustissimi carinati *solidi, fusci rugulosi*, ciliis rudimentariis binis fuscis interpositis.

*Leskea polycarpa* Ehrh. Crypt. Exs. n. 96. — Brid. II. p. 314. — *Hypnum medium* Dicks. Crypt. Fasc. 2. p. 12. — *H. multiflorum* P. B. Prodr. p. 66. — *H. trichodes*, capsulis oblongis setis brevioribus. Dill. Musc. p. 331. t. 42. f. 65.

*H. paludosum* Arn. Disp. p. 66. — *Leskea paludosa* Brid. II. p. 315. — *L. palustris* Hdw. Musc. Fr. IV. p. 2. t. 1. — *Hypnum palustre* Hoffm. Deutsch. Fl. II. p. 64. — *H. inundatum* Dicks. Fasc. Crypt. IV. p. 17. — *H. heterophyllum, aquaticum, polycephalum.* Dill. Musc. p. 293. t. 37. f. 27. B?

*β. exile*; caulis gracillimus, foliis minutis lanceolato-acuminatis, theca angustissime cylindrica. *Leskea exilis* Starck. in Brid. Mant. Musc. p. 145. et Br. univ. II. p. 306. — Schw. Suppl. I. II. p. 174. t. 85.

*Patria.* Per totam Europam et Americam septentrionalem, ad truncos atque radices arborum et ad rupes, praesertim in humidiusculis inundatis. Var.  $\beta$ , locis iisdem siccioribus. — *Vere.*

Ab *H. attenuato* affini ob vestigia laudata distinctissima species.

435. **H. obscurum** P. B. (Prodr. p. 67.); *monoicum*; late decumbens, e sordide viridi fuscescens, rigidiusculum; caulis repens, ramis vagis ascendentibus *apice strictis attenuatis, rarius subcurvulis, densifoliis* brevibus, filis paucis simplicibus rigidis obtectus; folia caulina *dense imbricata erecto-appressa, humore erecto-patentia, nunquam secunda*, ovato-lanceolata, subfalcata integerrima concava, nervo viridi ante apicem evanido, inferne valido, margine convexo-planiusculo, haud distincte reflexo, cellulis rotundis *firmis* sordide viridibus; perich. *lanceolato-acuminata elliptice areolata, nervo ante apicem evanido, laevia*; theca in ped. longiusculo laevi rubente crassiore erecta cylindracea submicrostoma *rufescens*, conico-operculata, annulata; perist. *H. polycarpi*.

*Leskea obscura* Hdw. Sp. Musc. p. 223. t. 57. — Brid. II. p. 300. — *L. gracilescens* Hdw. l. c. p. 222. t. 56. — Brid. II. p. 299. — *Hypnum gracilescens* P. B. Prodr. p. 64.

*Patria.* In inundatis ad arborum radices Americae septentrionalis Mühlenberg detexit.

Ab *H. polycarpo* affinissimo characteribus expositis facile distinguitur.

436. **H. nervosum** C. Müll.; *dioicum*; *longe prostratum* late cespitosum, viride tenue; caulis *elongatus filiformis repens, ramis inordinate pinnatis teneris attenuatis appressis*, filis folioliformibus parcissimis integris; folia caulina dense imbricata, humore erecto-patentia, e *basi decurrente ovata longe acuminata stricta, margine inferne valde revoluta integerrimo*, nervo valido viridi longo *subexcurrente* cellulis rotundis *glabriusculis, haud opacis*; perich. *longissima* laevia pallida diaphana, basi laxius reticulata longe vaginantia, *ad acuminis basin parce*



*emarginato-dentata, nervo tenuiore subexcurrente; theca in ped. longiusculo rufo laevi erecta cylindraceo-oblonga, microstoma, late annulata, fuscidula, operc. conico acuminato curvulo; perist. d. ext. brevissime lanceolati aurantiaci laeves, laeviter trabeculati et linea longitudinali obsoleta exarati, int. angusti solidi concolores, ciliis irregularibus singulis brevibus concoloribus interpositis.*

*Leskea nervosa* Myrin et dein Spruce in Musc. Pyr. No. 94. in Ann. and Mag. of Nat. Hist. 1849. — *Leskea Norvegica* Sommerf. — *Anomodon nervosus* Hüb. Musc. Germ. p. 561. — *Maschalocarpus nervosus* Spreng. Syst. Veget. IV. I. p. 158. — *Pterigynandrum nervosum* Brid. II. p. 189. — *Pt. longifolium* Schleich. Cent. IV. n. 8. — *Pterogonium nervosum* Schw. Suppl. I. I. p. 102. tab. 28. — *Leskea extensa* Starck in schedulis! — *Grimmia cylindracea* Web. et Mohr. Bot. Taschenb. p. 157.

*Patria.* Per totam Europam, in arboribus et terra; sed nunquam vulgare, plerumque in regione montosa et subalpina. — *Vere*, sed rarissime fructificans.

Ab *H. polycarpo* affini notis laudatis distinctissimum.

437. *H. fragile* C. Müll.; dioicum? caulis repens humillimus tenellus, ramis perbrevis suberectis incurvis gracillimis parce ramulosis; folia caulina dense imbricata, humore squarroso-patentia, ovato-acuminata, parum ovato-ligulata obtusiuscula, fragilia glauca, nervo valido ante apicem evanido, margine erecto, cellulis rotundatis opacis papillosis, basi pallidioribus; perich. erecta longiora ovato-ligulata; theca in ped. perbrevis laevi suberecta minutissime ovalis, simpliciter annulata, operc. conico oblique rostellato, calyptra minutissima pilosa; perist. minutum. †.

*Anomodon fragilis* Wils. Lond. Journ. of bot. 1848. p. 275. t. 10.

*Patria.* China, ad truncos arborum vetustos insulae Chusan: T. Anderson.

E vestigiis accuratius designatis ab omnibus congeneribus facile distinctum. Auctor perist. perfectum non vidit; ex analogia hypnoideum nobis certum est.

438. **H. angustatum** C. Müll.; caulis laxè cespitosus procumbens vage ramosus teres pallide olivaceo-viridis, ramis *acutioribus* folia caulina *densius appressa* erecta, cordata acuminata, *marginè basi recurva* integerrima, nervo ante apicem evanescente; perich. lanceolata erecta, thecam parum superantia; theca erectiuscula *cylindræa*; perist. d. int. brevissimi. †.

*Leskea angustata* Tayl. Lond. Journ. of bot. 1846. p. 62.

*Patria.* Ad truncos arborum pr. Quito vulgare: W. Jameson.

Ab *H. rostrato* ex obs. auctoris characteribus expositis differt. E Wilsoni ratione ad *H. consanguineum*, certe distinctum, revocandum sit.

439. **H. consanguineum** C. Müll.; *dioicum*; *H. nervoso* simile, sed rami crassiores; folia caulina *latius ovata, falcate breviter acuminata, marginè haud revoluto*, cellulis magis pellucidis; theca vix annulata, operculo *conico obtuso brevi*.

*Pterogonium consanguineum* Mont. Ann. d. sc. nat. 1842. p. 249.

*Patria.* Montes Neelgherienses, in cortice arborum: Perrottet.

Perist. internum non vidimus; procul dubio vero aderit.

440. **H. viticulosum** Linn. (Sp. Pl. p. 1592.); *dioicum*; cespites latissimi laxi viridissimi elati mollusci, inferne ochracei; caulis secundarius elatus, *ramis paucis apice incurvis*, filis vix ullis simplicibus obtectus; folia caulina *laxè imbricata, e basi late ovatâ ligulato-acuminata obtusa, falcata, carnosâ*, majuscula, subsecunda, humore subito maxime reflexa, *marginè basi revoluto, superne crenulato*, nervo valido pallido ante apicem abrupto, cellulis subrotundis diaphanis, sed ob papillas densissime aggregatas maxime opacis, infima basi sola pallidioribus; perichaetia subimmersa, angustissima parva, foliis appressis, e basi vaginante laxè reticulata angustius et acute acuminatis, superne opacis; theca in ped. *elongato flavido stricto erecta, cylindræo-oblonga microstoma*

pallida, dein nitide fusca, late annulata, operc. *conico oblique acuminato, brevi*; perist. duplicis d. ext. longiuscule lanceolato-acuminati, flavidi, superne albidi, sublaeves, laeviter trabeculati, linea longitudinali pallida exarati, apice subfissiles, interni capillares aequilongi albidi; ciliis 1 — 2 brevissimis tenerrimis fugacissimis interpositis.

*Neckera Schlechtendalii* Pieper: De Neck. Schlechtendalii 1838. p. 9. t. 1. — *N. viticulaeformis* ej. l. c. p. 8. t. 1! — *N. viticulosa* Hdw. Fund. Musc. p. 209. t. 48. — Brid. Br. univ. II. p. 231. — *Anomodon viticulosus* Hook. et Tayl. Musc. Brit. p. 79. t. 22. — *Leskea viticulosa* Spruce in Musc. Pyr. No. 100. Ann. and Mag. of Nat. Hist. 1849. — *Leskea vivipara* Willd. — *H. subhirsutum*, viticulis gracilibus erectis, capsulis teretibus. Dill. Musc. p. 347. t. 39. f. 43.

$\beta$ . *brachycarpum*; folia breviora magis incrassate areolata, theca brevis elliptica. *Anomodon obtusifolius* Br. et Sch. in Musc. Amer. Drumm. No. 163. Lond. Journ. of bot. 1843. p. 667. — *Neckera minor* Sulliv. Musc. Allegh. No. 74, non Bridel!

*Patria.* Per totam Europam et Americam septentrionalem ad truncos arborum et rupes, vulgare. — *Vere*, sed rarissime fertile.

*Hypno attenuato* primo visu simile, sed caule elongato parce ramoso et foliis obtusis statu quoque sterili facillime discernibile.

441. *H. Rugelii* C. Müll.; *dioicum*; *H. viticuloso* simillimum, sed *ramis gracilioribus strictis*; folia multo *minora, brevissime mucronata*, longius papillosa, margine basi *valde undulato nunquam revoluto*; perich. caulinis similia; theca *brevius pedunculata* brevior; perist. d. ext. *angustissimi breves ubique articulati et rugulosi, linea longitudinali non exarati*.

*Leskea apiculata* Schimp. in litteris.

*Patria.* America septentrionalis, Smoky-Mountains reipublicae Tennessee: Rugel.

442. *H. attenuatum* Schreb. (Spic. Fl. Lips. p. 100.); *dioicum*; late cespitosum, procumbens, caulis ramosissimus, ramis *vagis apice curvatis involutis v. tenerioribus flagelliformibus attenuatis*, viridissimis v. luteo-viridibus,

rigidiusculis, filis paucis conglomeratis in foliola angusta brevia transeuntibus obtectus; folia caulina *subcrispate imbricata, humore subito reflexa*, dein laxe patula, interdum secunda, e basi amplexicauli *ovatâ lanceolata acuta carnosâ maxime opaca*, margine erecto basi parum undulato integro, apice crenulato, nervo valido *pallido* ante apicem evanido, cellulis minutissimis rotundatis tenerrime papillosis, infima basi pallidioribus; perich. vaginantia *laxiuscule tenerrime pellucide ubique reticulata* longius anguste acuminata, papillis tenerrimis margine crenulata, obsoletinervia; theca in ped. longiusculo *purpureo laevi erecta, cylindræo-oblonga badia exannulata, operc. pallido conico subulato subobliquo*; perist. d. ext. longi angusti *albidi laeviter trabeculati*, superne articulati hyalini subfissiles, int. in membrana *albida* altiuscula æquilongi *angustissimi hiantes rugulosi albidi*, ciliis *singulis brevibus* interpositis.

*Anomodon attenuatus* Hüb. Musc. Germ. p. 562. — *Neckera minor* P. B. Prodr. p. 78. — Brid. II. p. 233. — *Leskea attenuata* Hdw. Musc. Fr. I. p. 33. t. 12. — Brid. II. p. 317. — *L. radicans* Schrank. Baiers. Fl. 2. p. 460. — *Hypnum clavatum* Bellard. App. ad Fl. Pedem. p. 51, fide De Notaris. — *H. stoloniferum* P. B. Prodr. p. 70! — *H. fulvum* Brid. Sp. Musc. II. p. 152. — *H. repens*, *trichodes*, *arboreum majus*, *cauliculis ramosis*. Dill. Musc. p. 331. t. 42. f. 66. a—c.

*Patria.* Per totam Europam et Americam septentrionalem, in terra et truncos arborum vulgare, sed rarissime fructificans. — *Auctumno et hyeme.*

*H. viticuloso* habitu maxime affine, sed foliis acutis primo momento distans.

443. *H. longifolium* C. Müll.; *dioicum*; latissime prostratum, e viridissimo lutescens, dein ferrugineum, implexum, ramosissimum, ramis *filiformibus teneris* elongatis apice parum incrassatis et incurvatis dichotomis, ascendentibus, filis paucis simplicibus cellulosis brevibus; folia caulina dense imbricata, humore laxè disposita, secunda, e basi *decurrente longiuscule anguste ovato-lanceolata falcate acuminata*, carinata, crenulata, margine

*basi subventricose convexo parum revoluto, nervo valido flavido ante apicem evanido, cellulis mollibus chlorophyllosis viridissimis obscuris granulosis; perich. longiora; theca in ped. breviusculo flavido tenerrimo angustissime cylindraceo - oblonga, exannulata fuscidula, brevicolla, operc. longe subulato tenuissimo obliquo; perist. d. ext. angustissimi breves lutei, ad lineam longitudinalem subsissiles, vix rugulosi, int. capillares albidi, ciliis rudimentariis interpositis.*

*Leskea longifolia* Spruce Musc. Pyren. Exs. No. 87. — *Anomodon longifolius* Bruch in litteris et Hartm. Sk. Fl. V. p. 339. — *Leptohymenium longifolium* Hmp. in litteris. — *Pterigynandrum longifolium* Schleich. ad *Hypn. nervosum* pertinet.

*Patria.* Ad truncos arborum in regione montosa; in fagis sylvarum altarum pr. Blankenburg Hercyniae copiosissimum: Hampe; prope Monachium et pr. Idriam Carniolae: Sendtner; in Istria ad Monte Maggiore Papperitz legisse fertur; Helvetia forte carebit; in Pyrenaeis ad arbores et saxa: Spruce; in Forfarshire Angliae fide Sprucei: Gardener et Scott; in Gothia, Norvegia et Suecia ex Ångström. — *Novembri.* Rarissime fertile!

Ab *H. viticuloso* v. *attenuato* proximis notis expositis facile distinguitur.

444. *H. rostratum* P. B. (Prodr. p. 69.); *dioicum*; late dense intricato-cespitosum, inferne amoene rubiginosum, superne glauco-viride, molle; caulis longe repens, ramis brevissimis dispositis, dein ascendentibus erectis valde fasciculatim divisis teretibus gracilibus, gemmulis foliaceis viridioribus hic illic nodosiusculus, filis folioliformibus angustissimis integris obtectus; folia caulina sicca et madefacta appressa, e basi ovata lanceolata, in acumen piliforme flexuosum flavidum producta, inaequaliter carinato - concava, minutissime rotundate areolata valde opaca viridissima, undulata, margine valde revoluto flexuoso, nervo profunde canaliculato pallido evanido tenui; perich. vaginantia lanceolata, longissime acuminata, ad acuminis basin emarginata tenuiter laxè reticulata pellu-

cida obsoletinervia; theca in ped. breviusculo rufo laevi erecta turgide ovalis leptodermis pallida exannulata, operc. conico subulato obliquo; perist. d. ext. breves lanceolati pallidi trabeculati, int. irregulares breviores in membrana tenera, ciliis binis connatis asperis albidis interpositis.

*H. caturum* P. B. Prodr. p. 62! — *H. desmiphorum* P. B. l. c. p. 63! — *H. flavens* Mich.! — *H. sabinaefolium* Brid. Mant. Musc. p. 166. — *Leskea rostrata* Hdw. Sp. Musc. p. 226. t. 55. — Brid. II. p. 303. — *Pterigynandrum crinitum* Brid. II. p. 192! — *Lasia marginata* Brid. Mant. Musc. p. 133! — II. p. 203. — *Pterigynandrum marginatum* Rich. Fl. Am. Bor. Mich. II. p. 292! — *Pterogonium marginatum* Schw. Suppl. I. I. p. 108! — Hypnum Julaceum, erectum sericeum repens, capsulis cylindraceis. Dill. Musc. p. 322. t. 41. f. 58. C!

*Leskea imbricatula* Hdw. Sp. Musc. p. 224. t. 52 e spec. auth. Hedwig. et Mühlenberg. huc pertinet! — Brid. II. p. 298. — *Hypn. imbricatulum* P. B. Prodr. p. 65.

*Patria.* Per totam Americam septentrionalem, ad rupes humidas vulgare. In alpibus Julicis ad montem Predil, ad viam inter Mittelbreth et Oberbreth, in radicibus *Coryli Avellanae*: Sendtner legit, specimina nobiscum autem non communicavit. In Pyrenaeis Spruce indicavit, qui in sylvaticis ad rupes inque fruticum radicibus zonae montosae superioris legit.

Characteribus laudatis primo adspectu distinguitur.

Species non satis nota.

445. **H. Sclerodontium** C. Müll.; monoicum; caulis repens foliosus vage ramosus rigidus, ramis brevibus simplicibus v. brevissime ramulosis teretibus sordide viridibus rigidis; folia caulina erectiuscula, ramulorum paulum patula v. patulo-imbricata, parva, late ovata, vix acuminata, ramulina cordato-ovata integerrima subacuta pellucida mollia sordide viridia, nervo valido excurrente rufescente, margine erecto, cellulis subrotundis; perich. duplo longiora ovata anguste acuminata nervosa; theca in ped. brevi crasso rufo laevi subrecto erecta oblonga teres parvula badia simpliciter annulata, operc. conico obtuso; perist. intus adnatum badium, dentibus anguste lan-

ceolatis laeviter trabeculatis, ad lineam longitudinalem e basi usque fere ad apicem hiantibus; calyptra dimidiata glabra. †.

*Leskea pellucida* Hook. in litt. ad Schwägr. — *Sclerodontium pellucidum* Schw. Suppl. III. II. 2. t. 292.

*Patria.* Brasilia, ad arbores.

Cum *Hypno polycarpo* auctor comparavit. Peristomium delineatum externum et ob statum imperfectum plantae internum praetervisum videtur. Verosimiliter huc pertinet.

b. *Theca inclinata.*

446. **M. catenulatum** Brid. (Sp. Musc. II. p. 154.); *dioicum*; cespites lati plani *rubiginoso-virides* maxime intricati; caulis longe repens, ramis brevibus subsimplicibus *julaceo-filiformibus erectis aequalibus ascendentibus* irregulariter pinnatus, *foliis paucis subspinaeformibus parvis* saepe obtectus; folia caulina appressa, humore parum patula, *lanceolata stricta, margine basi parum reflexa, integerrima, carinata*, nervo ultra medium evanido, *cellulis amoene viridibus carnosulis subincrassate rotundatis, haud opacis*, alaribus *distinctioribus rhomboideo-quadratis*, omnibus *sublaevibus*; perich. pallida pellucida, lanceolata longius acuminata, recta, subnervosa, ad acuminis basin saepe emarginato-sinuata; theca in ped. brevi rufo laevi arcuato-oblonga badia, *annulata*, operc. *conico-rostellato obliquo*; perist. d. int. subhiantes, ciliis *singulis v. binis distinctis*.

Brid. II. p. 450. — *H. Algoicum* Froehl. in litt. ad Brid. — *H. catenatum* Vill. Pl. Dauph. III. p. 909? — *Pterigynandrum catenulatum* Brid. Musc. Rec. II. I. p. 64. t. 5. f. 4. — *Pterogonium catenulatum* Schl. Crypt. Exs. et Cat. Pl. Helv. p. 30. 1807. — *Grimmia catenulata* Web. et Mohr. Bot. Taschb. p. 151.

*Leskea Fröhlichii* Brid. Sp. Musc. II. p. 70. et Br. univ. II. p. 305, e spec. auctoris incompletis pauperrimis huc forma pertinet.

*Patria.* E regione montosa ad alpinam ascendens, per totam Europam. — *Aestate et auctumno*, sed rarius fertile.

Notis laudatis ab *H. filamentoso var. tenui* facile distinguitur.

447. **H. triste** C. Müll.; *dioicum*; cespites latissimi deplanati viridissimi sordidi v. lutescentes maxime intertexti, caulis longe repens, ramis breviusculis filiformibus tenerrimis ascendentibus in ramulos breves distantes *apice subcurvulo minutissime gemmaceo-clavatos divisus* parce partitus, filis folioliformibus subcellulosis vix ullis obtectus; folia caulina *humore subito squarrosa*, e basi *latiuscule amplexante anguste subligulato-acuminata*, superiora *brevissime mucronata*, inferiora *oblusa*, concava subreflexa, margine erecto, subundulato ob papillas *grossiusculas distinctas valde crenulato*, nervo dimidiato v. saepius nullo, cellulis *grosse rotundatis mollibus viridissimis chlorophyllosis*.

*Leskea fragilis* Hook. et Wils. in Drumm. Musc. Amer. No. 101. — Sulliv. Musc. Allegh. Exs. No. 71! — *Leskea tristis* Cesati in De Not. Syllab. Muscor. 1838! p. 67!!

*Patria.* America septentrionalis, in convallibus nec non in summis montibus, ad arborum corticem vulgare a Montreal usque ad New-Orleans, hucusque semper sterile collectum: Drummond, Sullivant. In Italia ad terram montis di s. Crescenzo prope Verbanum primus omnium legit Cesati sterile!

Ab *H. catenulato* affini characteribus expositis longe distans, quoad foliorum structuram internam *H. viticulosum* magis aemulans.

448. **H. filamentosum** Bertol. (Amoen. p. 438.); *dioicum*; caulis repens flexuosus, ramis brevibus *teretibus obtusiusculis incurvis* simplicibus v. subfasciculatim ramulosis ascendentibus irregulariter pinnatus, filis *simplicibus folioliformibus multis* obtectus; folia dense appressa, humore patula *subsecunda*, e basi ovata margine late revolutâ lanceolata, breviter *falcate* acuminata, concava, crenulata, nervo valido rufescente ante apicem evanido, cellulis incrassate rotundatis opacis tenuissime papillosis; perich. *latius lanceolato-acuminata pellucida te-*



nero-reticulata laevia subnervosa stricta; theca in ped. brevi purpureo laevi minute arcuato-oblonga fuscescens, exannulata, operc. conico brevi; perist. parvi d. int. angusti subsolidi flavidi, ciliis *brevissimis rudimentariis singulis*.

*Leskea atrovirens* Hartm. Sk. Fl. V. p. 337. — *Leskea incurvata* Hdw. Sp. Musc. p. 216. t. 53. — Brid. II. p. 320. — *H. incurvatum* P. B. Prodr. p. 65. — *H. atrovirens* Sm. Fl. Brit. III. p. 1307. — *H. filiforme* Vill. Pl. Dauph. III. p. 906 fide De Notaris.!

$\beta$ . *tenue*; caulis filiformis tenuis rubiginoso-viridis. *Leskea punctata* Fröhl. in litt. ad Bridel. — *H. implexum* Brid. Musc. Rec. II. II. p. 150. t. 4. f. 3. *H. catenulato* haud dissimile!

$\gamma$ . *brachyclados*; caulis prostratus, ramis brevibus confertis robustioribus, foliis sublaevibus majus areolatis v. diaphanis. *Leskea brachyclados* Schw. Suppl. I. II. p. 173. — Brid. II. p. 323.

$\delta$ . *papillosum*; habitus var. praecedentis, folia minor, margine apicis distincte serrulato-papillosa. *Leskea Saviana* De Not. Syllab. Musc. p. 63!

*Patria.* E regione montosa ad alpes totius Europae ascendens. In alpibus Aquianis in Sagro Bertolonus legit. Var.  $\beta$ . in alpestribus forma vulgaris; var.  $\gamma$ . ibidem rarior; var.  $\delta$ . in Apennino Etruriae et Piceni plurimis locis: Orsini. — *Vere.*

Ab *H. circinnato* proximo vestigiis laudatis differt.

449. **H. circinnatum** Brid. (Sp. Musc. II. 1812! p. 148.); *dioicum*; cespites lati decumbentes rigidi obscure virides; caulis longe repens, *filis folioliformibus destitutus*, ramis humilibus assurgentibus, in ramulos brevissimos curvulos teretes obtusiusculos fastigiatim divisus; folia caulina dense conferta, *vix secunda*, humore parum patula, e basi subrotundate ovatâ breviter lanceolato-acuminata *substricta*, basi cochleariformi-concava, inferne denticulata, apice serrulata, ob marginem inferne valde revolutum biplicata, firma, nervo valido in acumen evanescente *viridi*, cellulis minute rotundatis virentibus *sublaevissimis diaphanis* incrassatis firmis, alaribus minute

quadratis permultis pachydermibus; perich. pallida, e basi late vaginante in acumen reflexiusculum *longissimum* attenuata, subdenticulata, nervo tenui longo evanido obsoleto, cellulis angustis elongatis pallidis; theca in ped. brevi valido rubro subinclinata oblonga vix vel subcernua, operc. conico acuminato recto; perist. d. ext. robusti rufescentes, int. flavi laeves hiantes, ciliis singulis *robustis*, *interdum in bina fissilibus*, albidis.

Brid. II. p. 409. — *H. circinnatum* Wils. in schedulis, e cujus determinatione nova species! 1849! — *H. Grevillii* Rabenh. Deut. Krypt. 1848! II. p. 291! — *H. Mediterraneum* Sendtn. Regensb. bot. Zeit. 1848! No. 5. — W. P. Schimper in litteris 1847! — *H. Salzmannianum* Hmp. in litteris 1842! — *H. Leskea* Greville in Trans. of the Linn. Soc. XV. II. 1827! p. 342. t. 3. f. 4! — *H. strigosum*  $\beta$ . *circinnatum* Brid. II. 1827. p. 447. — *H. distans* Brid. Sp. Musc. II. 1812! p. 109; forma foliis parum laxius areolatis chlorophyllosis! — Brid. II. p. 409.

*Patria.* In muris saxisque calcareis, e regione plantarum sempervirentium Istriae (Sendtner!) per Italiam superiorem (Garovaglio!) et mediam (Bridel!) ad Galliam australem (Requien! Salzmann! W. P. Sch.!) et Pyrenaeos australes (Arnott!). Ex insulis Jonicis habuit R. K. Greville! Ad terram in fagine-tis calcareis Angliae, prope Dorking in Sussex: Mitten! Oras maritimas calcareas temperatas totius Europae, ubique tamen rarissime fertile, habitare videtur.

Ab *H. filamentoso* proximo notaculis expositis certe refugit; ab *H. strigoso* foliorum margine late convexo-revoluto jam differt.

450. **H. Zippelii** Dz. et Molkb. (Ann. sc. nat. 1844. p. 310.); caulis repens intricato-ramosus, ramis erectis simpliciusculis pusillus, folia horizontaliter patentia subsquarrosa, e basi amplexicauli *late cordato-lanceolata obtusiuscula denticulata obesula*, nervo infra apicem evanido, cellulis *minutiusculis angulate rotundatis obscuris firmissiusculis*, *vix papillosis*; perich. erecta ovato-lanceolata acuminata integerrima plicata, nervo obsoleto v. nullo; theca inclinata oblonga curvata, operc. convexo-conico obtusiusculo.

*Patria.* Amboina: Zippelius.

Fructum non vidimus.

451. **H. prionophyllum** C. Müll.; caulis debilis vage bipinnatus; folia caulina laxè imbricata, remota, *anguste lanceolato-acuminata stricta planiuscula, parum carinata, e basi usque ad apicem dense serrulata*, minutissime rotundate areolata, opaca, tenerrime papillosa, nervo flavido excurrente, margine erecto; theca cernua ovata.

*H. nervosum* Hook. in Ic. Pl. Rar. t. 24. f. 3. — Cum diagnosi Harvey in Lond. Journ. of bot. 1840. p. 21.

*Patria.* Nepal: Wallich.

Species distincta, cujus fructum pauperrime descriptum et delineatum non vidimus.

#### Incertae species.

1. **H. Jacquinii** Garov. (Bryol. Austr. p. 82 et 87.); caulis repens filiformis tenuis, dense intricatus, obscure virens; folia sicco patentissima, remote disposita, rigida, nitore destituta, angustissime ovato-lanceolata, triplo longiora quam lata, margine erecto, nervo ad medium evanido; theca in ped. scabro ovato-ventricosa brevis, operc. duplo longiore. †.

*Patria.* In Austria inferiore, ad saxa arenaria in valleculis montium, pr. Neuwaldegg, Hütteldorf, Mauerbach alibique copiose: Garovaglio.

An *H. triste*?

2. **Leskea Polenburgii** Lobarz. (in Haidinger's Naturwissenschaftlichen Abhandlungen 1847. p. 55.); cespites lati pulvinati rubiginoso-olivacei molles; caulis basi filiformis, tenerrimus prostratus varie divaricatus, inordinate divisus rubiginosus nudus, sensim crebre ramificans crassior foliosus, ramis vagis fasciculatis virgatis flabellatisque cunctim fastigiatis julaceo-squarrosifoliis fortioribus apice hamato-incurvis, aliis filiformibus longissimis simplicibus filamentosis; folia sensim increscentia, basilaria rubiginosa minutula laxè imbricatula caduca, su-

periora majora undique laxè imbricata erecta olivacea et aeruginosa, variegata squarrulosa v. secunda, summa maxima homomalla dense turbinascenti-congesta, hamato-incurva, omnia e basi late orbiculate ovata concava cucullato-undatâ longissime ligulatim cuspidata longe acutissima, margine integerrimo ut in lamina tenerrime granulato, nervo valido obscuro sub imo cuspidè stricto v. obliquo granulato sensim evanido, cellulis laxis subpellucidis papillosis. †.

*Patria.* Halicia, in sylvis primævis fagineis Beskidorum orientalium, in latere australi alpium Zupaniensis, in fagetis, scaturigines fluminis Stryj celantibus, ad arborum truncos putrescentes late cespitosa, sed hucusque sterilis reperta: de Łobarzewski 1841.

Ex auctore, qui *Hypno attenuato*, *rostrato*, *viticulosulo* et *Hypno longifolio* nob. comparavit, habitu *Leucodontis sciuroidis* v. *Rhacomitrii*. — In honores poëtae laureati *Vincentii Pola Polenburg*, auctoris sylvas primævas Carpathicas scrutantis comitis nomen triviale conditum. — Procul dubio huc pertinet.

Sucsectio II. **Tamariscella.** Caulis eleganter 1—3-pinnatus.

I. *Robustiora.*

a. *Pedunculus laevis.*

452. **H. abietinum** L. (Sp. Pl. p. 1591.); *dioicum*; caulis filis confervoideis maxime articulatis ramulosis obtectus, decumbens laxè cespitosus, divisionibus similibus vage ramosus, rigidus, luteo-ferrugineus, altus, ramis *ramulis filiformibus attenuatis reflexis*, apice brevioribus, duris subdensis *eleganter simpliciter pinnatis et frondiformibus*; folia caulina appressa, humore erecto-patentia, *majusculè ovato-lanceolata*, valde concava, margine late revolutò crenulato, nervo ante apicem evanido lutescente valido, cellulis ubique grossis papillosis, basi lutescentibus; perichaetia turgida exserta, foliis pallidioribus laevibus late lanceolata, in acumen longissimum flexuosum denticulatum producta, *elongate laxiusculè pal-*

lide reticulata; theca in ped. longiusculo badio laevi rigido rectiuscula, *anguste arcuato-cylindrica*, badia, annulata, operc. *conico*; perist. *H. ramulosi*.

Hdwg. Musc. Fr. IV. p. 84. t. 32. — *H. Stereodon abietinus* Brid. II. p. 573.

*Patria.* Per totam Europam et in America septentrionali, in locis apricis vulgatissimum, sed rarissime fertile. — *Auctumno.*

**453. III. tamariscinum** Hdw. (Sp. Musc. p. 262. t. 67.); *dioicum*; cespites latissimi, laxi prostrati *aureo-virides non splendentes*; caulis assurgens crassiusculus, divisionibus pluribus vage divisus, ramis rigidis gracillimis eleganter breviter pinnatis, apice longius producto subcuspidato tenerrimo vix flexuoso praeditis, densissime approximatis subdistiche dispositis, haud recurvis bipinnatus, apice flagellis saepe innovans, filis tenerrimis valde divisis et *maxime articulatis confervoideis* curvatis obtectus; folia caulina *minora, cochleariformi-ovato-lanceolata*, margine *late revoluta scabra*, nervo unico valido *fuscescente ante apicem evanido*, cellulis ubique *incrasate rotundatis pallidis, dorso subciliate grosse scabro-papillosis*; perichaetia *minora*, foliis late lanceolatis, in acumen *longissimum denticulatum* apice recurvum acutum productis, basi plicatis, pallidis, *scariosis*, e cellulis *confatis* compositis laevibus; theca in ped. longiusculo crasso laevi aurantiaco rigido *longiuscule et valde arcuato-cylindracea* subhorizontalis badia, annulata, operc. *conico acuminato*; perist. robusti d. int. lati longi flavidi punctulati, vix hiantes, ciliis binis albidis aequilongis.

Brid. II. p. 438. — *H. tamariscifolium* Neck. Meth. Musc. p. 158. — *H. proliferum* L. Sp. Pl. p. 1590 ex parte. — *H. parietinum* Murr. in Linn. Syst. Veget. p. 590. — *H. delicatum* Ehrh. Dec. n. 301. — *Hypnum filicinum Tamarisci foliis minoribus non splendidibus.* Dill. Musc. p. 276. t. 35. f. 14.

*H. protensum* Rich. in Mich. Fl. Am. Bor. II. p. 317. huc certe pertinere videtur. — *H. recognitum* Hdw. Musc. Fr. IV. p. 92. tab. 35.

*Patria.* Per totam Europam et Americam septentrionalem, ubi in sylvaticis vulgatissimum. In prom. b. spei: Zeyher et Ecklon. — *Auctumno et hyeme*, praeterea per anni partem magnam thecis maturis.

454. **H. delicatulum** Hdw. (Musc. Fr. IV. p. 87. t. 33.); *dioicum*; *H. tamariscino* simillimum, sed folia papillis multo minoribus scabriuscula, perich. longissime late loriformi-acuminata, e cellulis plerumque grossis robustis pellucidis sublaxis reticulata, latissime nervosa, margine revoluta ad basin acuminis densissime serrulati ciliate papilloso lobato-fimbriato, ciliis plerumque simplicibus strictis, sed saepe longissimis maxime geniculato-articulatis et spinoso-ramosis igitur crispis rarissime obsoletis praedito; perist. d. int. ciliis ternis interpositis; operculo longirostro obliquo.

*H. tamariscinum*  $\delta$ . *delicatulum* Brid. II. p. 441. — *H. filicinum*, tamarisci foliis minimis non splendentibus, setis capsulisque brevioribus. Dill. Musc. p. 546. t. 83. f. 6.

*Patria.* In locis iisdem cum *H. tamariscino*, in Europa tamen rarius; specimina ex Helvetia, Hercynia et Scotia tantum vidimus. E Mexico retulerunt Deppe et Schiede. Insula Antillarum Trinidad: Crüger. Venezuela, prov. Caracas, pr. Galipan, alt. 5000', in lapidibus, Coll. Lind. No. 349: Funck et Schlim.

E specimine auth. Hedwigiano species haecce descripta c. fol. perich. lobato-ciliatis vera est. Ab aliis auctoribus (e. gr. Hübener. Musc. Germ. p. 658 et 659.) inversa vice descripta et synonymia igitur vix extricanda est. E foliis perich. longe lateque loriformibus papillosis facillime distinguitur. Oportet observationes recentiores ostendant, an species zonae tropicae eadem sit quam zonae temperatoris Europae atque Americae septentrionalis; sterilem solam perichaetiis praeditam vidimus.

455. **H. pseudo-protensum** C. Müll.; (Bot. Zeit. 1848. p. 779.); *dioicum*; *H. tamariscino* simillimum, sed folia tenerrime papillosa, minutius areolata, late cordato-acuminata, plicata, perichaetia parva, foliis late ovato-

*lanceolatis*, in acumen *breve rectum* productis, *haud plicatis*, *tenerrime remote papillosis*, *incrassate reticulatis*.

*Patria.* Venezuela, prov. Merida, Lagunetta pr. Merida, alt. 6500 pedum, in arboribus, Septbr. 1846: Funck et Schlim in Coll. Linden. No. 992, cum perichaetiis legerunt.

456. **H. cymbifolium** Dz. et Molkb. (Ann. d. sc. nat. 1844. p. 306.); *dioicum*; *H. delicatulo* simillimum, sed folia caulina e basi late ovato-cordata profunde concava plicata in acumen *longissimum confervoideo-piliforme articulatum flexuosum* producta, viridia *sublaevia*, minute rotundato-areolata, margine infra acumen late revoluta, vix crenulata; ramulina minutissime cordato-lanceolata acuta magis papillosa evanidinervia; perich. late vaginanti-lanceolata, in acumen longissimum reflexum *tenuè piliforme subcellulosum* producta, *laevia*, e cellulis brevibus pellucidis areolata, intima margine in cilia sublobato-confervoidea articulata laevissima producta; theca erecto-incurva cylindrica, infra orificium contracta.

*Patria.* Java, Sumatra.

Fructum non vidimus.

457. **H. Mascarenicum** C. Müll.; *dioicum*; *H. tamariscino* simillimum, sed folia parum papillosa majora, perich. e basi late cochleariformi-ovalâ in acumen canaliculatum breviusculum anguste ligulatum v. acutum producta, margine inferne maxime late revoluta subcrenulata, nervo lato rufescente ante apicem evanido, e cellulis *incrassate rotundatis* composita, minutissime papillosa.

*H. tamariscinum* Brid. Hb.

*Patria.* Insula Bourbonis, ubi altitud. 600 hexapodum legit Bory St. Vincent.

458. **H. hastatum** C. Müll.; *dioicum*; *H. tamariscino* simillimum, sed multo humilius gracilius pulcherrime aureum pulchellum, vix bipinnatum; folia caulina e basi *latissima maxime ventricose auriculata plicata subito hastato-lanceolata anguste acuminata falcata*, e cellulis mi-

nutis pachydermibus subrotundatis *subgriseis opacis tenerrime papillosis* composita, nervo *flavido* canaliculato *in apicem excurrente* valido, margine inferne valde revoluta, caviuscula.

*H. recognitum* Hmp. in Pl. Preiss. II. p. 119!

*Patria.* Nova Hollandia, ad Swan River: Preiss.

b. *Pedunculus scaber.*

459. **H. plumulosum** Dz. et Molkb. (Ann. d. sc. nat. 1844. p. 308.); *dioicum*; caulis crassiusculus rigidissimus longe flexuose repens, *ramificationibus planissimis* intricatis *obscurè viridibus*, ramis *brevibus* alternis densiusculis, e basi usque ad apicem *elegantissime dense plumosis* bipinnatus, *apice stoloniferus nudus*, ubique densissime et breviter granulose filamentosus; folia caulina *minute cordato-lanceolata*, margine ubique paulisper revoluta, maxime opaca, tenerrime papillosa, nervo evanido *tenui viridi*; perich. e basi breviter ovata longe tenuiter acuminata acutissima denticulata, elongate anguste reticulata pallida laevia; theca in ped. *breviusculo* flexuoso rufo *ubique scaberrimo vix inclinata parva turgide oblonga*, ore *coarctata*, annulata, badia, perist. brevis d. int. *albidi rugulosi* vix hiantes, ciliis brevibus binis subconflatis albidis nodosis.

*H. Meyenianum* Hmp. Ic. Musc. t. 8. 1844. Nomen ob aliud synonymum ejusdem auctoris delendum. — *H. cymbifolium* Dub. in Moritzi Syst. Verz. p. 131!

*Patria.* Manila: Meyen. Java: Zollinger No. 1810. Sumatra et Borneo: Hb. Lugd. Batav.

Species ramis eleganter plumaeformibus primo visu cognoscenda.

460. **H. ramulosum** Hmp. (in litt.); *dioicum*; caulis humilis crassiusculus, *siccitate crispate foliosus* apice incrassatus parum incurvus, amoene viridis, ramulis brevibus inaequalibus simpliciter pinnatus; folia caulina *dense conferta*, *humore erecto-patula subflaccida*, longiuscula, e basi late cordata, *margine maxime subdecurrenti-au-*



*riculato-revolutâ* subito in acumen lanceolatum crenulatum apice hyalino-piliferum producta, basi pallidiora, superne et auriculis maxime opaca griseo-viridia, nervo pallescente ante apicem evanido, cellulis minutis rotundatis tenerrime papillosis; perich. e basi latissime ovata laxè reticulata pellucida tenuiter nervosa margine eroso-dentatâ longissime anguste acuminata acuta denticulata, ubique laevia; theca in ped. brevi crassiusculo ubique scaberrimo purpureo horizontalis parvula, turgide subcernuo-oblonga pallida, late annulata, operc. conico oblique rostrato; perist. breviusculi d. int. flavidi laeves valde hiantes, ciliis binis.

*Patria.* Cap. Dissapointment orae Americae occidentalis.

Notis litteris cursivis designatis sp. propria, *H. hastato* proxima.

#### Incertae sedis.

**461. *H. scabrifolium*** Hook. et Wils. (Lond. Journ. of bot. 1844. p. 552.); caulis pinnatus; folia laxè imbricata dissita subrecurva, ramulina minora, vix secunda, sicca incurva, imbricata ovato-lanceolata acuminata, margine scabra, minutissime rotundate areolata, opaca, glaucescentia dorso papillosa, nervo valido excurrente. †.

*Patria.* In insulis Aucklandi sterile legit J. D. Hooker.

*H. crispifolio* Hook. ex observantibus auctoribus simile, sed humilius, foliis nec plicatis, nec falcatis.

**462. *H. fuciforme*** Brid. (Sp. Musc. p. 135 et Br. univ. II. p. 432.); *dioicum*; caulis elatus densifolius procumbens robustus, ramis irregularibus longiusculis iterum tenuiter simpliciter rarius irregulariter parce ramulosis 2—3 pinnatus, sed nunquam plumosus, filis paucis 1—2 seriatim cellulosi brevibus simpliciusculis obtectus, sordide fuscidulus; folia caulina erecto-conferta, humore parum patula, ovato-ligulata obtusa vix acuminata integerrima, margine inferne revoluta, nervo subvalido luteo

infra apicem evanido, cellulis incrassate ellipticis diaphanis laevibus; perich. e basi subovata anguste loriformi-acuminata acutiuscula laevia, incrassato-elliptice areolata.

*Patria.* In sylvis insularum Franciae et Bourbonis, ad terram: Bory St. Vincent.

*H. umbrato* v. *Pyrenaico* simile.

## II. *Minutula*.

### a. *Theca cylindracea*.

463. **H. scitum** P. B. (Prodr. p. 69.); *monoicum*; *H. abietino* simillimum, sed *multo gracilius et humilium*, *magis irregulariter et simpliciter pinnatum*; folia caulina e basi *latissima subundulate subauriculatâ brevissime hastato-lanceolata tenuiter plerumque falcate acuminata*, opaciora; perich. anguste lanceolato-acuminata pallida subscariosa subplicata; theca in ped. breviusculo laevi purpureo *anguste cylindracea, haud vel vix arcuata*, retiuscula, operc. *conico-rostrato subrecto*.

*H. Stereodon scitus* Brid. II. p. 575. — *H. intertextum* Mühlenb. in Sulliv. Musc. Allegh. n. 6. — *H. porrigens* Wils. l. c.

*Patria.* Ad radices arborum Americae septentrionalis, ubi primus legit *Palisot de Beauvois*.

464. **H. gracile** Br. et Sch. (Lond. Journ. of bot. 1843. p. 668.); *monoicum*; *H. scito* simillimum, sed folia caulina *perfecte cochleariformi-ovata concava*, margine *regulariter late revoluta*, longius tenuiter subcurvate acuminata, perich. plicata laxius reticulata; theca valde *arcuato-cylindrica* subhorizontalis, annulata, operc. *conico brevi*; perist. int. triciliatum.

*H. abietinum*  $\beta$ . *minor* Hook. in Drumm. Musc. Amer. No. 217. — *H. varium* Hook. et Wils. in Drumm. Musc. Amer. No. 140 et 141. fide Sullivant. — *H. microphyllum* Mühlenb. Catal. fide Sullivant. Musc. Allegh. No. 5. — *H. Grayanum* Sulliv. in litt. 1850!

*Patria.* Ad lapides et truncos arborum Americae septentrionalis, e Sullivant sat frequens in Virginia.

465. **H. punctulatum** De Not. (Prodr. Bryol. Mediol. p. 78 et Syllab. Musc. p. 12.); *monoicum*; *H. gracili* si-

millimum, sed folia *grosse papillosa et distincte reflexo-acuminata*, margine ob papillas distinctius crenulata, opaca, vix diaphana, nervo distincte excurrente; perich. margine interdum lobato-ciliata; theca in ped. laevi longiusculo rufescente anguste arcuato-cylindracea, operc. conico obtusiusculo; perist. int. ciliis binis subtilibus.

*Patria.* Italia, in sylvis siccis prope Mediolanum, in collibus ad Verbanum: Balsamo et De Notaris; in sylvis prope Cavour Pedemontii: Romano.

Perist. non vidimus. Species Europaea *H. gracili* Americano ut *H. demissum* *H. adnato* respondens memorabilis.

466. **H. Jacquemonti** Br. et Sch. (in Musc. Abyss. No. 481.); humile laxe cespitosum procumbens sordide lutescens rigidissimum, ramis *remotis patentibus* rigidis inaequaliter brevibus *simpliciter subpinnatum*; caule breviter filamentoso; folia caulina siccitate suberispate squarrolosa, humore patula, *latiuscule hastato-lanceolata* subcurvula, margine basi revoluto, superne crenulato, nervo valido viridi ante apicem evanido, cellulis minutis opacis tenuiter papillosis; perich. *latius lanceolato-acuminata* tenera pallida laevia, *tenerrime breviter ciliata*, e cellulis laxiusculis pellucidis brevibus composita; theca in ped. brevi *flavido* rigido laevi parva subcylindrica arcuata subinclinata, pallida, operc. conico brevi; perist. parvi d. ext. angusti lutei, int. flavidi, breves subhiantes, ciliis brevibus albidis *singulis* fugacibus.

*Patria.* Abyssinia, ad arbores montis Bachit, 6. Aug. 1838: W. Schimper.

Ab *H. gracili* notis cursive impressis certe differt.

467. **H. Haplohymenium** Harv. (Lond. Journ. of bot. 1840. II. p. 21.); *monoicum*; tenerrimum procumbens, vage ramosum rigidissimum tenellum; rami ramulis *remotis siccitate circinnato-involutis* et crispate foliosis irregulariter simpliciter pinnati, amoene aureo-lutescentes; folia caulina *brevissime late cordato-ovata brevissime* curvate acuminata, margine *haud revoluto* crenulato, opaca

papillosa, basi badia, superne viridula, concava, nervo subexcurrente viridi; perich. vaginam *vix superantia angustissime lanceolato-acuminata*, externa latius ovata, margine superne *parce eroso-denticulata*, pallida, breviter pellucide laxiuscule reticulata; theca in ped. stricto rufo laevi *erecta anguste cylindrica subcurvula* badia annulata; perist. d. ext. *angustissimi opaci rugulosi indistincte trabeculati teneri*.

*Leptohyemenium microphyllum* Schw. Suppl. III. II. 1. t. 271, ubi *Haplohyemenium microphyllum* false descriptum est. — *Leskea microphylla* Hook. in Wallich. Cat. n. 7638.

*Patria.* Nepal.

Perist. speciei hujusce pulchellae imperfectum vidimus quidem, sed membranam rugulosam fuscidulam hypnoideam certe observavimus. Operc. ignotum. Ob vestigia laudata ab *H. involvente* proximo longe refugit.

468. **H. remotifolium** Grev. (Trans. of Werner. Soc. Edinb.); *monoicum*; *H. involventi* simillimum, irregulariter bipinnulatum; folia caulina crispata *majora distinctius lanceolato-acuminata*, margine hic illic revoluto *undulato*; theca in ped. *brevi* rectiuscula, *anguste longiuscule arcuato-cylindracea* badia annulata.

Ic. Schwägricheniana, in Suppl. II. II. 2. t. 200 data, ex specimenibus Hookerianis, a Cl. Montagne acceptis, huc *vix* pertinet.

*Patria.* America occidentalis.

Peristomium imperfectum solum et operculum non vidimus.

b. *Theca oblonga v. ovata.*

α. Pedunculus laevis.

469. **H. dimorphum** Brid. (Sp. Musc. II. p. 149.); *dioicum*; late laxe cespitosum decumbens, lutescens humile; caulis rigidus, ramis simplicibus subjulaceo-foliosis patentibus rigidis brevissimis simpliciter pinnulatus, filis paucis plerumque *in folia minutissime lanceolata spinuloso-dentata transeuntibus*; folia caulina humore et siccitate squarroso-patientia, *amplexicauli-cordato-lanceo-*

*lata*, breviter reflexiuscule acuminata, minute diaphana areolata, *tenera*, sublaevia, margine *erecto*, nervis *binis brevibus tenuissimis obsoletis*; ramea *julaceo-imbricata*, humore squarrulosa, *obtusiuscula* minora; perich. late lanceolata, in acumen elongatum maxime reflexum producta, pallida, subcrenulata laxius tenerius reticulata; theca in ped. brevi purpureo subinclinata, arcuato-oblonga parvula badia, annulata; operc. conico brevi obtuso mammillato; perist. parvuli d. int. albidi subrugulosi angusti hiantes, ciliis 2—3 laevibus tenuissimis albidis.

Grev. Scott. Crypt. n. XX et XXXII. t. 160. — *H. Stereodon dimorphus* Brid. II. p. 581. — *H. squarrosulum* Voit. Musc. Herbol. p. 100. — *H. brevifolium et diversifolium* Schl. — *H. exile* Vill. — *Pterogonium tectorum* A. Braun in litt. ad Bridel! *H. Stereodon tectorum* Brid. II. p. 582; in tectis rusticorum omnibus planitie Rhénanae Suevorum ab A. Braun lectum.

*Patria.* Per totam Europam et in insula Terre Neuve (*Lapylaie*) Americae septentrionalis, terram sylvarum altorum umbrosarum habitans et e zona montosa usque ad inferalpinam ascendens. — *Primo vere.*

*H. scito*, *gracili et punctulato* simile, sed characteribus accuratius designatis longe distans.

470. **H. microphyllum** Sw. (Prodr. Fl. Ind. Occ. p. 142.); *monoicum*; caulis procumbens rigidus filiformis, ramis *inaequalibus* tenerrimis remotis *vix pinnatus*, lutescens, *filis paucissimis subsimplicibus parum cellulosis obtectus*, *superne haud vel vix ramulosus*, sed longiuscule *simplex*, *submollis*; folia caulina squarrosulo-imbricata, *lutescentia*, parva, *haud crispata*, e basi *latiuscule cordato-ovatâ subito longiuscule acuminata substricta*, nervo *amoene lutescente valido in cuspidem excurrente*, minute diaphane areolata, minute papillosa, margine basi vix revoluta, superne crenulata; perich. lanceolato-acuminata longiuscula stricta pallida plicata laevia subintegerrima angustissime elongate reticulata; theca in ped. rigido aurantiaco *laevi* stricto horizontalis minute cernuo-oblonga pallida late annulata, operc. *breviter conico obtuso*; pe-

rist. d. ext. angusti lutei breves, int. flavidi solidi, ciliis binis albidis vix appendiculatis.

Hdw. Sp. Musc. p. 269. t. 69. — *H. Stereodon microphyllus* Brid. II. p. 649, excl. spec. Pensylvanicis, ad *H. varium* pertinentibus.

*Patria.* Jamaica, ad radices arborum: Swartz; Hispaniola: Bertero ad terram legit.

Ab *H. involvente* haud dissimili ob vestigia laudata longe refugit.

**471. *H. muricolum* C. Müll.;** *monoicum*; *H. microphylo* simillimum, sed *distincte simpliciter pinnatum mollius sordide viride*, folia caulina late cordato-ovata, in acumen tenue brevius *distincte falcatum* producta, *viridia*, nervo excurrente, *nunquam in cuspidem excedente, viridi*; perich. *viridia haud plicata*; theca, operculum et peristomium *H. microphylli*.

*Patria.* Insula S. Catharinae Brasiliae, in locis umbrosis, in muris prope Desterro, Mart. 1847: Pabst.

**472. *H. minutulum* Hdwg.** (Musc. Fr. IV. p. 90. t. 34.); *monoicum*; *H. scito* simillimum, sed tenerrimum et plerumque viridissimum, irregulariter simpliciter v. duplicate pinnatum; folia caulina *cordato-lanceolata* subcurvule acuminata opaca valde papillosa, margine parum revoluta; perich. lanceolato-acuminata, acumine longo reflexo, nervo subexcurrente, cellulis pallidis elongatis laxiusculis pellucidis; theca in ped. elongato laevi *horizontalis subturgide cernuo-oblonga*, annulata, aurantiaca, dein fusca, operc. conico *longe aciculari-rostrato obliquo*, perist. breviusculo tenello, interno vix hiante flavido triciliato, ciliis appendiculatis discretis.

*H. Martianum* Sendtner in Regensb. Denkschriften III. 1841. p. 150. — *H. Stereodon minutulus* Brid. II. p. 578 ex parte. — *H. Stereodon Virginianus* Brid. II. p. 576 e spec. Dillenianis huc pertinere videtur. — *H. Bavaricum* Voit. in Sturm Germ. II. Fasc. XIV. — Hypnum cespitosum filamentosum, minimum subflexum. Dill. Musc. p. 282. t. 36. f. 18.

*Patria.* Per Americam septentrionalem totam in truncis arborum et terra; „im Baierschen Hochwalde“ ad

truncos pini vetustos putridos: Hubert, ad Monachium Bavariae detexit Martius. — *Auctumno.*

**473. H. muricatulum** Hmp. (Linn. XX. p. 88.); *monoicum*; *H. minutulo* simillimum, viridissimum, sed caulis ramis maxime tenerrimis, *brevissimis, humiditate eleganter palmato-pinnatis distincte bipinnatus*; folia caulina *minutissime cordato-lanceolata, vix curvula, margine vix v. parum revoluta, nervo pallido evanido notata, opaca papillosa*; perich. lanceolata, longe reflexe acuminata, tenero-membranacea pellucida margine subcrenulata, cellulis *brevibus*; theca in ped. mediocri laevi rufo *arcuato-oblonga, propter curvaturam pedunculi saepe nutans minuta, badia, annulata, operc. curvirostro thecam superante*; perist. minuti d. int. in membrana densissime reticulata, ciliis *binis tenerrimis exappendiculatis.*

*Patria.* Venezuela, Caracas: Moritz in Coll. Thoreyana No. 46.

**474. H. pauperum** C. Müll.; *monoicum*; laxe caespitosum procumbens lutescens; *caulis longissime repens filiformis, in divisiones vix ullas divisus simplex, ramulis brevissimis plerumque simplicibus hic illic omnino deficientibus rarius parcissime pinnulatis pinnatus*; folia caulina *minutissime cordato-lanceolata breviter subrecurvo-acuminata, valde opaca papillosa, nervo pallescente evanido, margine parum revoluta*; perich. *latiuscule lanceolata, longe substricta acuminata, pellucida, elongate laxiuscule reticulata, laevia, margine superne parce denticulata*; theca in ped. rufo laevi stricto longiusculo *parum inclinata minute oblonga turgida, haud arcuata, brevis macrostoma, annulata, operculo longe oblique conico-aciculari thecam aequante*; perist. brevis angusti d. int. *vix hiantes flavidi angusti, ciliis ternis hyalinis appendiculatis discretis longis.*

*H. muricatulum* C. Müll. Bot. Zeit. 1848. p. 779.

*Patria.* Venezuela, prov. Merida, Vallée de Merida, alt. 6000' in arboribus putridis, 1846. Sept., Coll. Linden. No. 989: Funck et Schlim.

Ab *H. muricatulo* Hmp. et affinibus notis laudatis certe differt.

475. **H. versicolor** Hsch. (in schedulis!); *monoicum*; *H. minutulo* simillimum, sed maxime tenerrimum, *indistincte remote bipinnatum valde flaccidum subconfervoidem* lutescens; folia caulina siccitate crispula, multo minora, *minute hastato-acuminata, acumine reflexo*; perich. minora denticulata; theca in ped. tenuissimo longiusculo rigido laevi aurantiaco horizontalis, *minute cernuo-oblonga* annulata aurantiaca, operc. conico oblique subulato; perist. *H. minutuli*.

*H. minutulum* Hsch. in Drègei Musc. Capens.

*Patria.* Prom. b. spei, ad Hangklip in cortice arborum: Mundt et Maire; in sylvis primaevis Krakakamae (Distr. Uitenhagen): Ecklon 1832. Julio.

Habitu *H. involventi* proximum.

476. **H. raphidostegum** C. Müll.; *monoicum*; *H. minutulo* simillimum, sed maxime tenerrimum *subbipinnatum*; folia multo minora; perichaetia lanceolato-acuminata, acumine longissimo denticulato flexuoso, haud reflexo, subexcurrentinervia, pellucida, basi sublaxe reticulata; theca in ped. elongato tenerrimo laevi *minutissime obovata turbinata macrostoma longicolla inclinata* badia, annulata, operculo *longissime aciculari, thecam superante*, perist. *H. minutuli*.

Hypnum n. sp.? Kze. in Pöpp. Coll. IV. Pl. Chil. No. 235.

*Patria.* Chile: Pöppig.

477. **H. Schiedeanum** C. Müll.; *monoicum*; minutissimum *compactum* tomentosum, caulis *brevissimus simpliciter pinnulatus*; folia caulina minutissime cordato-lanceolata, *substricte breviter acuminata*, opaca, papillosa, margine parum revoluta, nervo evanido pallescente; perich. *H. pauperi*; theca in ped. elongato laevi rufo arcuato-oblonga *parva* horizontalis, annulata badia, operculo conico oblique rostrato, perist. *H. minutuli*.

*H. minutulum* Hsch. in Musc. Mexic.



*Patria.* Mexico prope Xalapa: Deppe et Schiede.

Ab *H. minutulo* notis explicatis, a caeteris congenere-ribus caule brevissimo compacto primo adspectu distin-guitur.

478. **H. eccremocarpum** C. Müll.; *monoicum*; *H. minutulo* simillimum, sed subbipinnatum, maxime tener-imum; folia multo minora, perichaetialia *minuta pauca appressa, vaginam haud superantia late cordato-ovata breviter acuminata tenero-membranacea*; theca in ped. *brevi tenuissimo laevi nutans minute urceolato-ovata, an-nulata*; perist. minuti d. interni ciliis *singulis (?) appen-diculatis*.

*H. Stereodon minutulus* Brid. II. p. 578, ex parte.

*Patria.* Hispaniola: Bertero.

Operculum ignotum.

479. **H. leptocladum** C. Müll.; *monoicum*, late dense cespitosum; caulis repens bipinnatus subbiuncialis, inferne tomentosus brunneus, foliolis squamaeformibus minutis ob-tectus, pinnis brevibus patentibus remotiusculis; folia caulina late cordata acuminata subsquarrosa, ramea cor-dato-ovata acuta, omnia integerrima, ob papillas crenu-lata, mediotenus uninervia, punctate dense areolata; pe-rich. appressa pallida elongato-acuminata; theca in ped. gracillimo laevi erecta ovata subaequalis, operc. conico rostellato; perist. d. ext. opaci, int. ciliis singulis inter-positis. †.

*Leskea leptoclada* Tayl. Lond. Journ. of bot. 1847. p. 339.

*Patria.* Prope Quito Andium: W. Jameson, Nov. 1846.

*H. Haplohymenio* quoad contextum auctoris affine, sed ramis magis distantibus, caule magis squamuloso, theca brevior et operc. rostrato differre dicitur.

β. Pedunculus scaber.

480. **H. involvens** P. B. (Prodr. p. 65.); *monoicum*; *H. minutulo* simillimum, sed rami *remote et crispate fo-liosi*, ramulis *remotis paucis v. nullis binatim v. simpli-*

*citer* pinnati; folia caulina minute cordato - lanceolata, subcurvule breviter acuminata valde opaca, nervo pallido ad medium evanido, margine tenuiter revoluta crenulata; perich. *H. raphidostegi*; theca in ped. longiusculo *ubique scaberrimo* rufo horizontalis, *minutissime obovata*, annulata, operc. conico *longe aciculari thecam* superante; perist. *H. minutuli*, sed ciliis ternis *conflatis exappendiculatis*.

*Leskea Omalia involvens* Brid. II. p. 326. — *Leskea involvens* Hdw. Musc. Fr. IV. p. 27. t. 11. — *H. gratum* Schw. et Brid. ex parte.

*Patria.* In Antillis majoribus, ubi in Jamaica primus legit Swartz et in minoribus: Bertero, Crüger. Guiana: Richard, Kegel. Peruvia: Humboldt et Bonpland, Pöppig. Venezuela, Cumbre de Caracas, alt. 3000 pedum: Wagner.

481. *H. gratum* P. B. (Prodr. p. 64); *monoicum?* caulis pinnatus, ramis distiche pinnatis, pinnulis simplicibus alternis, folia surculorum ovato - lanceolata, apice subulata, siccitate crispa, nervo integro notata, pinnularum subovata majora acuta; perich. lanceolato - subulata; theca in ped. scabro inclinata, operculo longe rostrato acuminato. †.

Schw. Suppl. III. 1. 2. t. 228? — Brid. II. p. 579.

*Patria.* In Africae regnis Oware et Benin legit *Palisot de Beauvois*.

Ex animadvers. auctoris ab *H. minutulo* simillimo differt: caule longiore teneriore elegantiore. Pedunculo quoque scabro recedit. Ab *H. involente* caule constanter dense bipinnato densifolio et operculo breviori differre videtur.

Sectio VII. **Hypnodendron.** Caulis *basi indivisa foliis minutis remotis squamaeformibus obtecta, superne dendroideo-ramosus*; rami sparsifolii; folia plus minus ligulate oblonga v. acuminata elliptice v. lineari - areolata laevia.

*Climacia* generis *Neckerae* iterum referentia.

Subsectio I. **Flabellaria.** Caulis basi indivisus, apicem versus autem *sensim in ramos* toto ambitu caulis dispositos fasciculatos *divisus*.

a. *Cellulae alares vesiculaeformes.*

482. **H. Korthalsii** Dz. et Molkb. (Ann. d. sc. nat. 1844. 2. p. 307); *dioicum*; caulis repens, ramis multis robustis erectis inferne simplicibus saepe julaceo-foliosis nudis, superne dendroideo-fasciculatim ramulosis, ramulis cuspidatis decurvatis robustis rigidissimis sordide viridibus; folia rami primarii subjulacei late ovata pili-formi-acuminata squamaeformia; ramulina subsquarrosopatia, e basi subpanduraeformi oblonga in acumen lanceolatum robustum latiusculum, margine serratum vix involutum incrassatum producta, cellulis ellipticis pallidis basi flavidis, alaribus auriculas magnas planiusculas sistentibus septenis longis lunatis plerumque articulatis flavidis, nervis vix conspicuis brevibus pallidis; perich. lattissime vaginantia, in acumen longissimum loriforme valde serratum subtortum producta, basi laxe flavide reticulata; theca in ped. longissimo purpureo laevi, ramo inferiori subnudo inserto, crasso, apice arcuato horizontalis magna turgide oblonga brevicolla, badia, operc. conico-acuminato acuto majusculo; perist. robusti d. ext. fuscii, linea media valde exarati, dense trabeculati, int. late lanceolati flavidi, ciliis ternis aequilongis remote articulatis.

*Hypnum trismegistum* Mont. in Lond. Journ. of bot. 1844. p. 633 et Ann. d. sc. nat. 1845. 4. p. 87. — *H. ciliato-serratum* Nees Hb.

*Patria.* Java, ubi primus legit Bélanger, dein Junghuhn et Korthals; e provincia Buitenzorg specimina copiosa et pulcherrima misit Miquel.

Species distinctissima spectabilis.

483. **H. lancifolium** C. Müll.; caulis erectus vagans, basi subsimplex, apice fasciculatim ramosus, 2—4 pollicaris, ramis compressis; folia laxe imbricata, longiuscule lanceolato-acuminata planiuscula sed implana, margine basi vix involuto, apicem versus remotiuscule serrato, erecto, nervis binis obsoletis brevissimis, cellulis an-

gustissime linearibus densissimis lutescentibus, alaribus magnis angustis elongate rectangularibus vesiculaeformibus amoene flavidis utrinque densis.

*Neckera lancifolia* Harv. in Hook. Ic. Pl. Rar. t. 21. f. 5; cum diagnosi in Lond. Journ. of bot. 1840. p. 14.

*Patria.* Nepal: Wallich.

Quoad characteres expositos ab *H. Korthalsii* vix, nisi ramis vix cuspidatis compressiusculis differt. Fructus, adhuc ignotus, differentias forsan praebeat.

484. *H. rigidum* Hsch. et Reinw. (Nov. Act. Acad. Caes. Leop. XIV. II. Suppl. p. 731.); caulis decumbens quadriuncialis vage ramosus rigidus, ramis cuspidatis iterum ramulosis rigidis foliosis atro-fuscis; folia imbricata erecto-patentia v. patentia, apice ramorum ramulorumque appressa et cuspidem formantia; caulina et ramea late cordato-ovata, subito in acumen elongata, concava, supra medium serrata, enervia (?), lurida; ramulina ovata v. oblonga, grosse serrata; omnia dense lineari-areolata. †.

*Patria.* Java, monte Gijurre: Reinwardt.

*H. Korthalsii* simillimum videtur; an et synonymum, latet.

b. *Cellulae alares quadratae.*

c. Nervus laevis vel nullus.

485. *H. myurum* Poll. (Pl. Pal. III. 1777! No. 1054. f. 8.); *dioicum*; caulis repens flagelliferus; divisiones ascendentes late laxaeque cespitosae, ramis curvatis subturgidis robustiusculis parce ramulosis pallescentibus rigidiusculis, apice gemmaceis, fastigiatis dispositis superne subdendroideae, inferne foliis minutis sursum majoribus erecto-confertis obtectae, subhumiles; folia caulina laxae conferta, *cymbiformi-oblonga*, *obtusiuscula* vel longius acutius acuminata, *cymbiformi-concava*, margine erecto, interdum indistincte convolutaceo, *superne denticulato*, ad alas infimae basis ventricose impressas convexo, nervo unico, interdum subfurcato, obsolete dimidiato latiusculo, valde complanato laevi pallido, cellulis

anguste oblongis v. ellipticis brevibus pallidissimis plus minus incrassatis, alaribus minute incrassate quadratis intus granulosis, saepius flavidis; perich. pauca appressa longius acuminata *strictissima*, vaginantia, infima basi laxius reticulata, obsoletissime nervosa, subintegra; theca in ped. brevi laevi nitente tortili rubro *erecta*, cylindraceo-ovalis v. oblonga, rubra nitida, late annulata, operc. conico breviuscule oblique rostrato concolori; perist. fragilis laevissimi pallidissimi d. ext. robustiusculi, intus cristati, int. teneri hiantes, ciliis rudimentariis v. binis brevibus.

*Isothecium myurum* Brid. II. p. 367. — *Hypnum myosuroides* Hdw. Musc. Fr. IV. p. 20. t. 8. — *H. myosuron* Gmel. Syst. Nat. II. p. 1346. — *H. curvatum* Fl. Suec. 1798. p. 64. — *H. viviparum* Neck. Fl. Gallo-Belg. II. p. 475. — *H. tumidiusculum* Lam. Encycl. Meth. Bot. III. p. 179. — *H. alopecuroides* ej. — *H. ornithopodioides* Fl. Dan. — *H. spinosum* Sibth.? — *Leskea curvata* Voit. Musc. Herbip. p. 72. — *L. incurvata* Wahlenb. Fl. Lapp. p. 368. — *L. myosuroides* Hdw. Fund. Musc. II. p. 93. — *L. vivipara* Timm. Prodr. Fl. Megap. No. 808. — *L. prolifera* Lumnitzer. Fl. Poson. No. 1069. — *Hypnum myosuroides*, crassius, capsulis erectis. Dill. Musc. p. 316. t. 41. f. 50.

*H. Mosquitense* Brid. Sp. Musc. II. p. 147. vel *Isothecium myurum*  $\beta$ . *Mosquitense* ej. Br. univ. II. p. 269 e spec. duobus maxime incompletis, in ora Mosquitensi Africae collectis huc pertinet; an patria autem recta inscripta sit, dubitamus. — *Isoth. myurum*  $\gamma$ . *filiforme* l. c. e speciebus quatuor diversis compositum est! — *Isoth. myurum*  $\delta$ . *ramosissimum* l. c. vel *H. ramosissimum* Brid. Mant. Musc. p. 184 in Hb. auctoris non vidimus.

*Patria.* Per totam Europam, e planitie usque ad zonam infraalpinam ascendens, ad terram, saxa arborumque radices. — *Vere.*

486. **H. myosuroides** L. (Sp. Pl. p. 1596.); *dioicum*; *H. myuro* simillimum, sed partibus omnibus minoribus; folia caulina *anguste ovato-lanceolata*, *acuminata*, *ubique serrulata*, *haud cymbiformia*; perich. *squarrosoreflexa*, *subdenticulata*; theca *subinclinata*, operculo breviori obtusiori.

*Isothecium myosuroides* Brid. II. p. 369. — *Leskea myosuroides* Roth. Fl. Germ. I. p. 464. — *Hypnum myosurum* Schrad. Syst.

Samml. Crypt. Gew. I. p. 17. No. 79. — *H. tenuius* Vill. Pl. Dauph. III. p. 904. — *H. myosuroides*, *tenuius*, capsulis nutantibus. Dill. Musc. p. 317. t. 41. f. 51.

*β. stoloniferum*; robustius procumbens, divisiones plerumque depressae humiles confertae, folia robustiora. *H. stoloniferum* Hook. Musc. Exot. tab. 74! — *Isothecium stoloniferum* Brid. II. p. 371.

*Patria.* Per totam Europam, locis umbrosis praesertim humidis, e planitie ad zonam inferaalpinam ascendens, terram, radices arborum saxaque habitans. Rarius quam *H. myurum*. Var. *β.* in plaga occidentali Americae borealis ubi Menzies 1791 legit; ibidem ad Cap. Dissapointment prope flum. Columbia nuncupatum: Hb. Hmp.

487. **H. circinans** Schimp. (in litt. ad Sauter!); caespites densi, rigidi, e pallide flavescenti virides et subfuscescentes, parum splendentes, latiusculi; caulis secundarius ultrapollicaris suberectus crassiusculus teres, superne fasciculato-dendroideus, ramis parum vel iterum fasciculatim divisis crassioribus *julaceis turgidis, utrinque attenuatis, brevibus, acutis, apice incurvis vel circinantibus*; folia caulina arcte imbricata ventricoso-ovata, concava, acuminata, enervia, integerrima, primum flavescentia, dein fuscescenti-viridia, rigida; perich. subemersa, angustiora, longius acuminata, dense imbricata; thecae in ped. caulem plus minus superantibus laevibus fuscis erectae *elongatae cylindricae castaneae ore subdilatae*. †.

*Isothecium circinans* Sauter in Regensb. Diar. Bot. 1850. p. 444.

*Patria.* In alpibus Pinzgoviae, in der Oede, einem Seitenthale des Wetterthales, alt. 4000 pedum 1838 Sauter sterile et m. Julii 1848 fertile detexit „am Fusse der, den Thalboden über dem Fuscherbade bedeckenden, Gneussblöcke“, in solo lapidoso, alt. 4000' thecis deoperculatis.

Ab *H. myosuro* affini ex animadv. Sauteri notis typographice declaratis foliisque longius acuminatis differt.

488. **H. pulvinatum** Hook. et Wils. (Lond. Journ. of bot. 1844. p. 555.); caulis humilis divisus, pinnatim

ramosus; folia imbricata erecto-patentia, ramulina subsecunda, obovata acuminata concaviuscula enervia integerima; perich. squarrosa; theca in ped. laevi ovato-cernua. †.

*Patria.* Dusky - Bay Novae Seelandiae: J. D. Hooker.

Ex auct. *H. myosuroidi* subsimile, sed minus. An huc revera ducendum sit, dubii sumus.

489. **H. alopecuroides** Hook. (Ic. Pl. Rar. t. 24. f. 5.); caulis primarius repens, secundarius erectus, basi brevi indivisa, foliis squarroso-reflexis obtecta, sursum ramis brevibus simplicibus v. elongatis parce iterum divisus 1—2 pinnatus, e viridi aureus, altiusculus, vix compressus, durus; folia caulina squarrosulo-imbricata, incurva, humore laxe patula, e basi ovata oblongo-acuminata, margine basi parum reflexo, apice denticulato, utrinque plica unica e basi ad medium progrediente, cellulis longioribus pallidioribus laxioribus (quam laminae ceterae e cellulis minutis rotundis firmis lutescentibus compositae) *praedita*, nervo valido ante apicem evanido.

Cum diagnosi in Lond. Journ. of bot. 1840. p. 20.

*Patria.* Nepal: Wallich. Amic. Sendtner quoque ex India Orientali communicavit.

β. Nervus dentatus.

490. **H. alopecurum** L. (Sp. Pl. p. 1594.); *dioicum*; caulis primarius longe repens, secundarius indivisus angulatus longiusculus, superne in ramos *compressiusculos* attenuatos flagelliformes *subpinnatim divisos* subincurvos subdistichos *pluries pinnatim partitus*, basi foliis squamaeformibus appressis apicem versus patentioribus late ovato-acuminatis pallidis obtectus; folia ramulina laxe imbricata *ovato-lanceolata acuta, caviuscula*, margine erecto, inferne denticulato, superne et apice argute serrato, nervo valido albido ante apicem dissoluto canaliculato, dorso parce dentato, cellulis ubique incrassate rotundatis pallidis firmis *virentibus*, alaribus vix conspicuis

parum impressis obscuris flavis incrassate quadratis minutis; perich. late vaginantia, *acumine breviter loriformi latiusculo apice serrulato*, margine recto, *e cellularum hyalinarum serie unica plerumque limbato*, nervo obsoleto, cellulis longioribus, basi laxiusculis; theca in ped. brevi valido recto laevi rubro inclinata, turgide ovalis exannulata rutilans, firma, operculo turgide conico rubro oblique subulato; perist. d. ext. lutei, ad latera pallide prominentes, int. flavidi angusti, valde hiantes, ciliis ternis interjectis albidis.

Brid. II. p. 444. — *H. Arbuscula* Brid. (non Hooker!) Musc. Rec. II. II. p. 96. — *Isothecium alopecurum* Spruce in Musc. Pyr. No. 82. Ann. and. Mag. of Nat. Hist. 1849. — *Hypnum dendroides*, obscurius, setis et capsulis brevioribus subnutantibus. Dill. Musc. p. 315. t. 41. f. 49.

*Patria.* Ad loca humida lapidosa umbrosa regionis montosae per totam Europam et Americam septentrionalem, regionibus arcticis exclusis, sed haud vulgare et raro fertile. — *Auctumno et vere.*

Ab *H. neckeroide* vestigiis accuratius expositis distat.

491. *H. Alleghaniense* C. Müll.; *hermaphroditum!*  
*H. alopecuro* simillimum, sed *ramis turgidis robustis.*

*H. neckeroides* Hook. et Wils. in Drumm. Musc. Amer. No. 119!

*Patria.* America septentrionalis, in saxis irrigatis, per montes Alleghanies vulgare: Sullivant; primus legit Drummond.

492. *H. neckeroides* Hook. (Musc. Exot. t. 58.); *dioicum*; caulis primarius repens, secundarius rectus, indivisus breviusculus, foliis squamaeformibus late ovatis obtusis acutis subintegris turgidis remotis obtectus, superne ramis *simplicibus flagelliformibus turgide foliosis curvatis simpliciter pinnatus*; folia laxè imbricata, *turgide late ovato-oblonga obtusa, valde concava, apice subincurvo grosse serrato*, margine erecto, basi parum convexo subdenticulato, nervo lato, laxè celluloso, canaliculato, ante apicem obtuse abrupto, dorso dentato, cellulis *grossius rotundis lutescentibus*; perich. late vaginantia *reflexe acu-*



*minata acuta*, cellulis et limbo marginis *H. alopecuri*, *enervia*; theca in ped. perbrevis valido rubro inclinata turgide ovata brevis firma; perist. *H. alopecuri*.

*H. Neckera* Schwägr. Suppl. III. II. 2. t. 288. — *Isothecium neckeroides* Brid. II. p. 373.

*Patria.* Dusky-Bay Novae Seelandiae: Menzies 1792.

Ab *H. alopecuro* characteribus explicatis distinguitur.

#### Incertae sedis.

493. **H. Ruthenicum** Weinm. (Bull. Soc. imp. d. Moscou 1845. p. 485.); caulis primarius longe et late repens nigrescens; divisiones remotae erectae, inferne nude, superne dendroideae fasciculatim divisae, brunneae nitentes, madefactae fere piceae, inferne foliis squamiformibus late ovatis plus minus apiculatis involutis integerrimis hyalinis amplexicaulibus enervibus v. valide nervosis, apicem versus minoribus; rami erectiusculi rigidi pinnati v. bipinnati, ramulis gracilibus valde attenuatis fere filiformibus; folia caulina undique imbricata erecto-patula, e latiuscula basi lanceolata, a medio ad apicem usque crebre serrata, ut plurimum bistriata, nervo crassiusculo obscuro colorato, infra apicem evanido. †.

*Patria.* Sibiria, insula Sitkha: Hb. Acad. Sc. Petrop.

Subsectio II. **Comatulina.** Caulis summo apice tantum in comam elegantulam dendroideam divisus.

a. *Caulis foliis squamaef. patentibus, tomentosus.*

α. Nervus laevis.

494. **H. comosum** La Bill. (Pl. Nov. Holl. II. p. 107. t. 253. f. 2.); dioicum; *cespites maxime tomentosi compacti fusco-lutescentes*; caulis breviusculus, sed proliferationibus pluribus dense comosis elatus; rami *rigidissimi* breves horride foliosi erecti densissime approximati parce dichotomi comam verticillatam densam efficientes; folia caulina et ramulina sicca et madefacta valde patentia rigidissima, e basi *maxime dilatata et auriculata brevissima*

*amplexante subito anguste et longissime lanceolato-acuminata, nervo crassissimo fusco cuspidem elongatam crassam strictam remote dentatam fuscam totam occupante, dorso laevi, margine ad auriculas e cellulis alaribus laxissimis fuscidulis magnis multis reticulatas valde revoluta, apice serrulato, cellulis angustissime linearibus densissimis luteis firmis; perich. e basi longe vaginante lanceolata longissime cuspidata subintegra, margine erecto, nervo excurrente, cellulis basi longissimis laxis fuscidulis; theca in ped. valido purpureo laevi mediocri pendula, sicca striata, cylindraceo-oblonga brevicolla, firma, operc. turgide conico longe oblique aciculari, annulo tenero; perist. H. Junghuhnii.*

Schw. Suppl. I. II. p. 263. t. 91. — *Isothecium comosum* Brid. II. p. 374. — *Bryum dendroides* L. Jun. Meth. Musc. p. 34. t. 1. f. 2. — *Mnium dendroides* P. B. Prodr. p. 74.

*Patria.* Insula Van Diemen prope Novam Hollandiam: La Billardiere. Insulae Aucklandi: J. D. Hooker, cujus speciminibus folia sunt cellulis alaribus plerumque incrassatis vix auriculatis.

Notis expositis species distinctissima.

β. Nervus serratus.

495. **H. Sieberi** C. Müll.; *dioicum*; cespites *laxe cohaerentes parce tomentosi virescentes*; caulis *semel vel bis comosus*; coma *flaccida, e ramis cirrhatibus apice subcuspidato curvato praeditis crassis distinctius dichotomis composita*; folia *ramulina anguste lanceolato-acuminata, acumine brevi lato grosse serrato et areolato, nervo valido viridi, acumen haud omnino occupante planato, dorso remote et viridi-dentato, carinata, margine ubique erecto subincrassato inferne integro, superne grosse serrato, cellulis incrassatis anguste linearibus, alaribus vix conspicuis fuscidulis*; perich. *H. comosi*, sed *subula remotissime grosse dentato, basi flavida.*

*Hypnum comosum* Hsch. in Sieb. Musc. Nov. Holl. No. 4.

*Patria.* Nova Hollandia: Sieber.

Fructum non vidimus. Ab *H. comoso* notis laudatis longe differt.

496. **H. divaricatum** Hsch. et Reinw. (Nov. Act. Acad. Caes. Leop. XIV. II. Suppl. p. 723. t. 40.); *dioicum*; cespites laxè cohaerentes; caulis indivisus breviusculus tomentosus, coma unica vel proliferatione duplicata ornatus, ramis cirrhatìs curvatis *gracilibus* dichotome divisìs *laxifoliis* pallide virentibus; folia ramulina *latiuscule lanceolata longius acuminata*, teneriora, nervo dorso serrato, *tenui*, margine *haud incrassato tenero*, e *basi jam serrato*; perich. *H. Sieberi*; theca in ped. purpureo laevi longiusculo valido tortili subpendula, anguste cylindracea longiuscula brevicolla macrostoma, siccitate valde striata, operc. turgide conico, longe oblique subulato; perist. *H. Junghuhnii*.

*Patria.* In monte Klabat Celebes insulae et in monte Gedé Javae: Reinwardt. E prov. Buitenzorg Javae misit Miquel.

Ab *H. Sieberi* proximo notis laudatis differt.

b. *Caulis foliis squamaef. patentibus reflexis, nudus.*

497. **H. Reinwardti** Hsch. (Nov. Act. Acad. Caes. Leop. XIV. II. Suppl. p. 722. t. 41.); *dioicum*; *H. Junghuhnii* simillimum, sed caulis foliis squamaeformibus *patentissimis reflexis* late ovatis acuminatis grosse *inaequaliter eroso subduplicato-serratis*, nervo tenui *in cuspidem longiusculam serratam producto praeditis*, pallidis, *teneris* obtectus; folia ramulina e *basi anguste ovata lanceolato-acuminata*, *acumine breviter valide cuspidato*, nervo *viridi*, margine erecto, dentibus *pallidis simplicibus* v. duplicatis, cellulis anguste linearibus longiusculis *lutescentibus, haud conflatis*; perich. longissime acuminata, acumine flexuoso, nervo ad medium evanido; theca in ped. mediocri v. longissimo flexuoso *erecta longicolla cylindraceo-oblonga*, *haud cernua*, operc. turgide convexo, longissime flexuoso subulato; perist. *H. Junghuhnii*.

Schw. Suppl. III. I. 1. tab. 223. — *H. orthocarpon* Nees in schedis!

*Patria.* In Malabaria et Java: Reinwardt, Zollinger No. 1733!

498. *H. Menziesii* Hook. (Musc. Exot. t. 33.); *dioicum*; caulis primarius repens tomentosus, secundarius altiusculus angulatus ater validus nudus, foliis squamaeformibus *reflexis late ovato-acuminatis integris*, e cellulis angustissime linearibus conflatis pallidis areolatis, basi fuscis obtectus, superne *in comam proliferatione plerumque duplicem*, ramis *densifoliis breviusculis obtusis* pallide lutescentibus splendentibus densam dendroidem divisus; folia ramulina densiuscule conferta, anguste ovato-lanceolata carinata, margine erecto, dentibus simplicibus pallidis inaequalibus argute serrulato, nervo tenui carinato in cuspidem brevissimam excedente dorso argute serrato, e cellulis angustissime linearibus pallidis subscaiosis areolata; perich. lanceolata longissime acuminata, pallida, apice denticulata, basi fusca, nervo tenuissimo obsoleto excurrente; theca in ped. longissimo valido flexuoso pendula magna cylindraco-oblonga brevicolla *laevissima estriata ochracea*, operc. conico acuto recto brevi fusco; perist. robusti d. int. flavi longissime subulati, basi hiantes, ciliis aequilongis teneris interjectis.

Schw. Suppl. III. I. 1. t. 222. — *Isothecium Menziesii* Brid. II. p. 376.

*Patria.* Dusky-Bay Novae Seelandiae: Menzies 1791 ad terram legit.

Species pulcherrima, notis laudatis ab omnibus affinis facillime discernibilis.

c. *Caulis foliis squamaef. appressis, nudus.*

499. *H. Junghuhnii* C. Müll.; *dioicum*; caulis primarius repens, secundarius *longissimus* erectus crassus angulatus, inferne foliis squamaeformibus appressis late ovato-acuminatis *intense fuscis grosse serratis firmis* remotis obtectus ater, basi tomentosus, apice ramis per-

multis subcompressis attenuatis valde fasciculatim pinna-  
tis flexuosis *lutescentibus* splendidibus in comam pul-  
cherrimam *dilatatam* laxam congestis, rigidis; folia cau-  
lina remota, e basi rotundatâ ovato-lanceolata, carinata,  
margine erecto, dentibus *fuscis* simplicibus *vel duplicatis*  
*ubique grosse* serrato, nervo *fusco* excurrente, dentibus  
*fuscis* remotis superne *grosse* serrato, cellulis anguste  
linearibus brevibus *conflatis lutescenti-pallidis*, *firmis*  
*scariosis*, alaribus vix ullis *intense fuscis* minute quadra-  
tis; perich. pauca appressa, e basi late vaginante subito  
longissime flexuose acuminata, elongate laxe sed firme  
reticulata, *intense fusca*, nervo tenui, in cuspidem den-  
ticulatam excurrente; theca in ped. mediocri valido atro-  
rufo laevi apice arcuato pendula longe cylindraceo-ob-  
longa subcernua brunnea, sicca striata, operc. turgide  
conico longe oblique subulato; perist. robusti d. ext. la-  
tissime lanceolati lutei, longe subulati pallidi, int. in  
membr. alta pallida lati, maxime hiantes, ciliis 3—4 lon-  
gis albis tenerrimis nodosis.

*Patria.* Sumatra, in cacumine montis Lubu Radja  
terrae nationis Batta dictae, elev. 5850 pedum: Jung-  
huhn 1842.

Hypnorum omnium gigas et decus! Ab *H. spininer-  
vio* simillimo notis cursive impressis differt.

500. *H. spininervium* Hook. (Musc. Exot. t. 29.);  
*H. Junghuhnii* simillimum, sed *humilius et tenerius*, ra-  
mis *pallide viridibus* in comam *minorem* congestis; folia  
caulina squamaeformia late ovato-acuminata *tenera sub-  
integerrima*; ramulina *pallida mollia*, dentibus *simplici-  
bus pallidis brevius* serrata, cellulis angustissime linea-  
ribus, *haud conflatis*; perich. pallidius fusca; caetera *H.  
Reinwardti*.

Brid. II. p. 336. — Schw. Suppl. III. II. 1. t. 258.

*Patria.* Dusky-Bay Novae Seelandiae: Menzies  
1790. E Nova Hollandia habuit Palisot de Beauvois,  
cujus specimina examinavimus.

501. **H. marginatum** Hook. et Wils. (Lond. Journ. of bot. 1844. p. 554.); caulis erectus dendroideus fasciculatim ramosus; folia laxe subbifariam imbricata erecto-patentia ovato-oblonga concaviuscula marginata serrulata nervo excurrente dorso spinuloso; theca cernua cylindrica curvula sulcata, operculo rostrato. †.

*Patria.* Insel-Bay Novae Seelandiae: J. D. H o o - k e r.

Ab *H. spininervio*, ex auct. simili, foliis remotioribus obliquis obsoletius serratis, distincte marginatis angustius reticulatis crassinervibus differt.

#### Hypna delenda.

1. **H. rubricaulis** Brid. II. p. 542 ex insula Melville. In Hb. Bridel. ramulus tenerrimus rubricaulis maxime imperfectus sub nomine illo asservatus est, cujus locus inter species bonas certus intelligi nequit. Quid est, cur auctores tam multi in specimina pessima species suas novas condant?

2. **H. dorsale** Brid. II. p. 543 inter *H. andicolum* Andium collectum ut species praecedens delendum.

3. **H. carinatum** Scop. Fl. Carn. ed. II. n. 1307 et Brid. II. p. 544; mentiente Bridel forsan ad *Neckeram repentem* revocandum.

4. **H. polyanthos** Brid. II. p. 541. — *H. confertum* P. B. Prodr. p. 62.

5. **H. longisetum** Brid. II. p. 542. — *H. longiflorum* P. B. Prodr. p. 65; quoad Bridel probabiliter *H. serpentis* varietas.

6. **H. alternans** Brid. II. p. 542 e Nova Hollandia.

7. **H. tumidiusculum** Lam. et Dec. Syn. Fl. Gall. p. 109 et Brid. II. p. 543, ubi *H. myuri* varietas dubie indicatur.

8. **H. xerampelinum** Villars in Pl. Dauph. III. p. 902 et Brid. II. p. 544, ubi ad *H. aduncum* probabiliter pertinens declaratur.

9. *H. ambiguum* Vill. Pl. Dauph. III. p. 904 et Brid. II. p. 545, sec. Bridel ad *H. populeum* revocandum est.

10. *H. Juliani* Brid. II. p. 545. — *H. capillaceum* Vill. Pl. Dauph. III. p. 907. An *H. dimorphum*? Bridel!

11. *H. pallescens* Vill. l. c. p. 909. et Brid. II. p. 546; ratione Bridelii forte *H. brevirostre*.

12. *H. tenuissimum* Vill. l. c. p. 905 et Brid. II. p. 546; sec. Bridel forsitan *H. confervoides* vel *Neckera filiformis*.

13. *H. pygmaeum* Vill. l. c. p. 909 et Brid. II. p. 546. An *H. nervosum*? Bridel quaesivit.

14. *H. catenatum* Vill. l. c. p. 909 et Brid. II. p. 547. Sp. obscurissima.

15. *H. flagellare* Vill. l. c. p. 910 et Brid. II. p. 547. An *H. viticulosum* vel *attenuatum*, latet.

16. *H. sepultum* Vill. l. c. p. 912 et Brid. II. p. 547. Forte *H. stramineum* sec. Bridel.

17. *H. obtusum* Vill. l. c. p. 912 et Brid. II. p. 548. An *H. molle*? sec. Bridel.

18. *H. inextricatum* Brid. II. p. 548. — *H. intricatum* Vill. Pl. Dauph. III. p. 914. E Bridel ad *H. confertum* vel *praelongum* pertineat.

19. *H. nanum* Vill. l. c. p. 915 et Brid. II. p. 549. Sp. obscurissima.

20. *H. bryoides* Vill. l. c. p. 91, sec. Bridel forte ad *Grimmiam microcarpam* revocandum sit.

21. *H. clavatum* Spreng. in schedis. Caulis ad *Hypnum* quoddam, theca ad *Bryum capillare* pertinet.

22. *H. Raddianum* Brid. II. p. 511 ad *Cryphaeus* pertinere videtur.

23. *H. laxum* P. B. Prodr. p. 65. — *H. Stereodon laxus* Brid. II. p. 653, e diagnosi Palisotii ad *Rhacopilum* pertinet.



**SUPPLEMENTUM**

AD

**SYNOPSIS MUSCORUM FRONDOSORUM**

UNA CUM

**CONSPECTU SYSTEMATIS.**



SYNOPSIS

I.

**MUSCI VEGETATIONIS ACROCARPICAE.**



CLASSIS I.

SCHISTOCARPI.

*Theca longitudinaliter in valvulis dehiscens inoperculata.*

Trib. I. ANDREAEACEAE. I. p. 5.

Gen. I. **Andreaea** Ehrh. I. p. 5.

Sectio I. **Andreaea** Ehrh. Theca in valvulis 4 dehiscens.

A. *Folia enervia.*

1. **A. nitida** Hook. et Wils. I. p. 6.

Fl. Antaret. I. p. 118. t. 57.

2b. **A. turgescens** Schimp. (in litteris!) dense cespitosa, atro-rufa; rami teretes; folia conferta ascendendo magis approximata, sicca imbricata, humida undique patentia, ovato-lanceolata, summa lanceolata, apice incurva et cucullata, enervia, dorso tuberculosa; perich. late lanceolata, longiora; theca *A. rupestris*. †.

*Patria.* Mexico, in summo m. vulcanico „Pico de Orizaba”, altit. 14000 pedum, una cum *Grimmia fuliginosa*: Liebmann.

Planta, quamvis vix semiuncialis, illa *A. rupestris* robustior, ramis clavatis insignis.

2c. **A. obovata** Thed. (Nya bot. Notiser af Anders. 1849. p. 78. t. 2.); dioica; surculi erecti compacte cespitosi fastigiatim ramosi rigidi; folia enervia conferta, ovali-obovata subpanduraeformia, concava, semiamplexicaulia, sensim acuminata, apice obtusiusculo, laevia, e basi ad-

pressa divaricata, siccitate arcte adpressa; perich. majora, oblonga, erecta, acutiuscula, apicem versus hyalino-marginata; ped. fuscus. †.

*Patria.* Suecia, in alpibus Herjedaliae boreali-occidentalis. — *Aestate.*

Surculi 2—3-pollicares, crassi, atro-fusci, in pulvinis magnis arcte connexi. Ceterum *A. rupestri* habitu subsimilis, attamen omnibus partibus robustior.

**3. *A. alpina* Hedw. I. p. 7.**

*Patria.* Norvegia, in Oesteroe praefecturae Bergensis: in Hb. Hartmanni specimina obs. Thedenius.

**3b. *A. Hartmanni* Thed.** (Nya bot. Notiser af Anders. 1849. p. 78. t. 1 et 2.); monoica; surculi pulvinato-cespitosi, ascendentes, ramosissimi dichotomi, molles, nigro-fuscescentes; rami apice subincrassati, surculorum longiorum subincurvi, breviorum erecti; folia caulina enervia, erecto-patentia v. patienti-subincurva, sursum crescentia, infima minima saepius putrefacta, ramea late ovata, maxime concava, contractione quasi subpanduraeformia, semiamplexicaulia, basi subimbricata, obtusa, integerrima, laevia, apice-chlorophylli defectu-rarissime hyalino-marginata, rotundato-areolata, basin versus oblonge vel lineari-areolata; perich. rameis duplo majora, ovato-oblonga v. ovata, erecta, convoluta, siccitate adpressa, obtusa v. apiculata, apicem versus plerumque hyalino-marginata; theca in ped. brevi crasso fusco solitario terminalis v. innovationibus prominentibus pseudo-lateralis, oblonga, apiculata. †.

*Patria.* Scandinavia, in saxis rivulorum alpinorum vallium Midtådalen et Nedalen Herjedaliae boreali-occidentalis. — *Aestate.*

**4. *A. marginata* Hook. et Wils. I. p. 7.**

Fl. Antarct. II. p. 396. t. 151. f. 1.

**5. *A. acutifolia* eorum. I. p. 7.**

Fl. Antarct. II. p. 396. t. 151. f. 2.

**6. *A. mutabilis* eor. I. p. 8.**

Fl. Antarct. I. p. 119. t. 57.

7. **A. laxifolia** eor. I. p. 8; monoica.

Fl. Antarct. II. p. 397. t. 151. f. 4.

Sectio II. **Acroschisma** J. Hook. Theca in valvulis 4—8 dehiscens.

13. **A. Wilsoni** J. Hook. I. p. 11; monoica.

Fl. Antarct. II. p. 397. t. 151. f. 3.

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CLASSIS II.

CLEISTOCARPI.

*Theca inoperculata disrumpendo dehiscens.*

Trib. I. BRUCHIACEAE. I. p. 13.

Areolatio parenchymatica, basi laxior, epapillosa, densa.

Gen. I. **Archidium** Brid. I. p. 13.

Calyptra thecam totam includens, dehinc disrumpens.

1. **A. phascoides** Brid. I. p. 13.

*Patria.* In arvis collibusque arenoso-argillaceis humidis vel uliginosis per totam Europam temperatam et calidiorem, fide Hartmanni (Sk. Fl. Ed. V.) quoque in Suecia. E rarioribus!

4. **A. Ohioense** Schimp. (nomine memoratum in Br. Europ. Fasc. 43!); monoicum; *subramosum, gracillimum, ramis conformibus*; folia lanceolata subdenticulata, nervo crasso excedente cuspidata, carinata, pellucide reticulata; perich. caulinis majora denticulata, excedentinervia; theca globosa *lateralis sessilis*.

*A. phascoides* Sulliv. Musc. Allegh. Exs. No. 213. — C. Müll. Synops. I. p. 13.

*Patria.* America septentrionalis, in pascuis siccis prope Harper's Ferry Virginiae: Sullivant.

Ab *A. phascoide* notis cursive impressis differt.

Gen. II. **Astomum** Hmp. I. p. 14.

Calyptra dimidiata.

1. **A. subulatum** Hmp. I. p. 14.

*Pleuridium subulatum* Br. Europ. Fasc. 43. c. tab.

2. **A. alternifolium** Hmp. I. p. 14.

*Pleuridium alternifolium* Brid. et Br. Europ. I. c.

7. **A. nitidum** Hmp. I. p. 17.

*Pleuridium nitidum* Br. Europ. I. c.

Incertae sedis.

1. **Phascum Jamesoni** Tayl. (Lond. Journ. of bot. 1848. p. 187.); hermaphroditum, laxe aggregatum, 2—3-lineare intense olivaceo-viride; caulis subsimplex erectus, ramis attenuatis superne divisus; folia congesta rigida erectiuscula, summa subpatentia, ex oblonga amplexante basi subulato-setacea, ramis dimidio breviora, margine plana, serrulata, nervo percurrente, apice colorato et diaphano; theca in ped. terminali, innovatione laterali, subflexuoso exserto erecta sphaerica, apice obtuse apiculata, sicca corrugata. †.

*Patria.* Monte Pichincha Andium Quitensium: W. Jameson, Majo 1847.

Habitu bartramioideo, foliis rigidis, theca magna et inflorescentia hermaphrodita species distinctissima. An *Astomum*?

Gen. III. **Bruchia** Schw. I. p. 17.

Calyptra campanulata.

Sectio I. **Sporledera** Hmp. Theca subaequalis s. pyriformis.

5. **Br. palustris** C. Müll. I. p. 19.

*Pleuridium palustre* Br. Europ. Fasc. 43. c. tab. — *Phascum uliginosum* Genth. Fl. Nass. p. 146 fide Bayrhoferi!

Sectio II. **Eubruchia.** Theca exserta et longe apophysata.

Trib. II. PHASCACEAE. I. p. 21.

Areolatio parenchymatica densa chlorophyllosa plus minus papillosa.



Gen. I. **Acaulon** C. Müll. I. p. 21.

*Calyptra mitraeformis.*

1. **A. Flörkeanum** C. Müll. I. p. 21.

*Bryol. Europ. Fasc. 42. c. tab.*

2. **A. muticum** C. Müll. I. p. 22.

*Bryol. Europ. Fasc. 42. c. tab.*

3. **A. triquetrum** C. Müll. I. p. 22.

*Bryol. Europ. Fasc. 42. c. tab.*

*Patria.* Prope Landau Bavariae Rhenanae: Gumbel. In monte „Taunus auf der grossen Aue prope Lorch“ parce legisse, Bayrhofer indicavit.

4. **A. Carniolicum** C. Müll. I. p. 23.

*Phascum Carniolicum* Br. Europ. Fasc. 43. c. tab.

Gen. II. **Phascum** Hmp. I. p. 23.

*Calyptra dimidiata.*

a. *Folia lanceolata.*

1. **Ph. crispum** Hdw. I. p. 24.

*Astomum crispum* Br. Europ. Fasc. 42. c. tab. — *Ph. multicapsulare* Sm. (sp. propria!) synonymum deleatur!

2. **Ph. Sullivantii** C. Müll.; *Ph. crispo* simillimum sed differt: habitu humiliori, fructibus solitariis, theca minore amoene aurantiaca nitidula, calyptra minore sporisque minoribus. †.

*Astomum Sullivantii* Br. Europ. Fasc. 43. p. 2. — *Ph. crispum* Sulliv. Musc. Allegh. Exs. No. 211 ex parte. In nostro exemplari hujusce operis, ab auctore nobis benevole communicati, species deest.

*Patria.* In agris graminosisque Virginiae: Sullivant.

3. **Ph. nitidulum** C. Müll.; praecedenti simillimum, humillimum, theca longiuscule pedunculata ovalis pallide castanea, nitida, oblique rostellata, calyptra minima. †.

*Astomum nitidulum* Br. Europ. Fasc. 43. *Astomum*, p. 3. — *Ph. crispum* Sulliv. Musc. Allegh. Exs. No. 211 ex parte.

*Patria.* In agris graminosisque Virginiae *Ph. Sullivantii* associatum: Sullivant.

4. **Ph. rostellatum** Brid. I. p. 24.

*Astomum rostellatum* Br. Europ. Fasc. 43. c. tab. — *Kleio-weisia rostellata* Bayrhoffer in Jahrb. d. Vereins für Naturk. im Herzogth. Nassau 1849. 5. Heft. p. 3.

*Patria.* In valle „Wisperthal in der Taubenau“ montis „Taunus“ copiose legisse Bayrhoffer declaravit.

5. **Ph. multicapsulare** Sm. (Fl. Brit. III. p. 1152.); *dioicum?* *Ph. crispo* simillimum, sed *caulis longior gracilior, apice ramulis flagelliformibus teneris divisus; folia caulina patula remota minuta, e basi pellucidiora recta anguste lanceolata mucronata, recurva, margine erecto integerrimo, nervo breviter excedente carinato, minute areolata subopaca v. pellucidiora, flexuosa; perich. multo majora erecta, latius lanceolata, apice subincurva; theca solitaria, oblonga, in rostellum rectum longiusculum producta, breviter pedunculata immersa.*

Brid. I. p. 48. — *Astomum multicapsulare* Br. Europ. Fasc. 43. c. tab. — *Ph. crispum* C. Müll. Synops. I. p. 24.

*Patria.* Britannia, in argillosis humidis prope Appleton (Cheshire): Wilson, Hurstpierpoint (Sussex): Mitten, prope Bedford et Clavam: Smith?

Nomen triviale „*multicapsulare*“ speciem male designat.

6. **Ph. Mittenii** C. Müll.; *monoicum et polygamum; Ph. multicapsulari* simillimum, sed *folia caulina minora, perich. perpauca angusta, apice stricta, theca minor magis sphaerica brevius rostellata et longius pedunculata.*

*Astomum Mittenii* Br. Europ. Fasc. 43. c. tab.

*Patria.* In iisdem locis cum praecedente prope Hurstpierpoint: Mitten. W. P. Sch. nobiscum benevole communicavit.

b. *Folia ovalia.*

a. *Theca immersa.*

7. **Ph. cuspidatum** Schreb. I. p. 25.

Br. Europ. Fasc. 43. c. tab.

*β. macrophyllum; Syn. I. p. 25. Ph. polycarpum* Br. et Sch. Br. Europ. Fasc. I. t. 6. p. 14. C. Müll. Syn. p. 24.

β. Theca exserta.

8. **Ph. subexsertum** Hook. I. p. 26.

9. **Ph. curvicollum** Hdw. I. p. 27; androgynum et hermaphroditum!

Br. Europ. Fasc. 43. c. tab.

10. **Ph. rectum** Sm. I. p. 27.

Br. Europ. Fasc. 43. c. tab.

11. **Ph. splachnoides** Hsch. I. p. 27.

12. **Ph. bryoides** Dicks. I. p. 28.

Br. Europ. Fasc. 43. c. tab.

13. **Ph. tetragonum** Harv. I. p. 29.

14. **Ph. Drummondii** Wils. (Lond. Journ. of bot. 1848. VII. p. 26. t. 1. A.); *monoicum*; folia dense imbricata, caulem *brevissimum veluti ovate bulbosum efficientia, subrotunda, concava, nervo subcontinuo subvalido, cellulis rotundato-hexagonis densis obscuris*; theca in ped. longiusculo fragilissimo erecta, *minute elliptica, suboblique rostellata, calyptra minuta*. †.

*Patria.* Nova Hollandia, ad Swan River: J. Drummond.

Trib. III. EPHEMEREAE. I. p. 30.

Areolatio folii parenchymatica ubique laxa epipilosa.

Gen. I. **Ephemerum** Hmp. I. p. 31.

Calyptra campanulata.

Sectio I. **Enervia.**

1. **E. serratum** Hmp. I. p. 31.

Br. Europ. Fasc. 42. c. tab.

2. **E. tenerum** Hmp. I. p. 31.

Br. Europ. Fasc. 42. c. tab.

Sectio II. **Nervosa.**

a. *Acaulia.*

4. **E. cohaerens** Hmp. I. p. 32.

Br. Europ. Fasc. 42. c. tab.

*Patria.* Anglia occidentalis: Wilson.

5. **E. sessile** C. Müll. I. p. 33.

Br. Europ. Fasc. 42. c. tab.

b. *Caulescentia.*

7. **E. patens** Hmp. I. p. 33.

*Physcomitrella patens* Br. Europ. Fasc. 42. c. tab. — *Genthia patens* Bayrhofer in Jahresber. d. Ver. f. Naturk. im Herzogth. Nassau 1849. 5. Heft. p. 2.

Gen. II. **Ephemerella** C. Müll. I. p. 34.

*Calyptra dimidiata.*

1. **E. pachycarpa** C. Müll. I. p. 34.

*Ephemerum pachycarpum* Rabenh. Deutschl. Krypt. Fl. II. p. 85. — Br. Europ. Fasc. 42. e. tab.

Gen. III. **Voitia** Hsch. I. p. 34.

*Calyptra dimidiato-cucullata, thecam superans.*

1. **V. nivalis** Hsch. I. p. 35.

Br. Europ. Fasc. 43. c. tab.

CLASSIS III.

STEGOCARPI.

*Theca operculo dehiscens.*

SUBCLASSIS I.

Acrocarpi.

*Fructus terminalis, innovatione lateralis.*

I. **Distichophylla.**

*Folia in series duas rectas disposita.*

a. *Exacte verticalia.*

Trib. IV. **SCHISTOSTEGEAE.** I. p. 37.

Gen. I. **Schistostéga** Mohr. I. 38.

b. *Exacte subverticalia.*Trib. V. **DREPANOPHYLLEAE.** I. p. 39.Gen. I. **Drepanophyllum** Rich. I. 39.c. *Folia horizontalia.*Trib. VI. **DISTICHIACEAE.** I. p. 40.

Areolatio folii parenchymatica minuta; folia elamellosa.

Gen. I. **Distichium** Br. et Sch. I. p. 40.

Calyptra dimidiata; perist. simplicis dentes fissi.

Gen. II. **Eustichia** Brid. I. p. 41.

Calyptra dimidiata; perist. simpl. dentes integri.

1. **E. longirostris** Brid. I. p. 42.

2. **E. Jamesoni** C. Müll.; dioica; caulis subuncialis erectus laxo cespitosus, basi simplex subnudus tomentosus, supra vage ramosus, ramis complanatis; folia laete viridia, imbricata erecto-patentia disticha, cymbiformia s. oblongo-ovata acuta, apice incurva, complicate carinata, denticulata, nervo valido pellucido excurrente infra subdenticulato, *papillosa*, infima lanceolato-subulata cauli appressa minora; perich. caulinis dissimilia epapillosa concava arcte imbricata, interiora enervia; theca in ped. radicali laterali erecto laevi tenui viridi, dein rufescente, subaequalis obtuse et colorate costata, *basi strumosa*, spurie annulata; perist. d. declinati *late lanceolati obtusi*, *rimis axialibus pertusi*, rufescentes, vix trabeculati. †

*Cymbaria Jamesoni* Tayl. Lond. Journ. of bot. 1848. p. 190.

*Patria.* Monte Pichincha Andium Quitensium: W. Jameson, Majo 1847. Terrestris in societate *Fissidentis turbinati*,

Ab *E. longirostri* notis cursive impressis distare videtur.

3. **E. Norvegica** Brid. I. p. 42.; dioica!

*Eustichium Norvegicum* Br. Europ. Fasc. 42. c. tab.

*Patria.* Ex America septentrionali pulcherrimam sed semper sterilem comm. Sullivant.

Trib. VII. FISSIDENTEAE. I. p. 43.

Areolatio folii parenchymatica; folia dorso et apice in lamellas producta.

Gen. I. **Conomitrium** Mont.

Ann. des sc. naturelles 1837. Tom. VIII. p. 250. — *Fissidens* Sect. *Hydrofissidens* Syn. I. p. 44.

Calyptra conica minuta, operculum obtegens, integra; perist. simplicis dentes superne fissi trabeculati.

Sectio I. **Octodiceras** Brid. II. p. 675. Caulis fluitans, cladocarpicus: theca in ramo proprio axillari terminalis; perist. d. breves irregulariter fissi.

A. *Caulis elongatus ramosissimus, foliis elongate ensiformibus angustis, laxiuscule reticulatis.*

a. *Fructus in ramo longiusculo.*

1. **C. Julianum** Mont. l. c. — *Fissidens Julianus* Schimp. — Synops. I. p. 44.

*Patria.* Stuttgart „im Brunnentroge am alten Schlosse”: W. P. Sch. 1848.

2. **C. Hedwigii** Mont. l. c. — *Fissidens Hedwigii* C. Müll. Syn. I. p. 45.

b. *Fructus in ramo brevissimo.*

3. **C. Dillenii** Mont. l. c. — *Fissidens Dillenii* C. Müll. Synops. I. p. 45.

4. **C. Berterii** Mont. l. c. — *Fissidens Berterii* C. Müll. Syn. I. p. 45.

*Incertae sedis.*

5. **C. Capense** C. Müll.; *C. Berterii* simillimum, sed caules longissimi apice gemmaceo-folioso incrassato falcato praediti.

*Fissidens Berterii* C. Müll. Syn. I. p. 45 ex parte.

*Patria.* Cap. b. spei: Drège sub No. 9379. a. et b. edidit.

Sterile tantum notum.

B. *Caulis humilior, foliis brevibus, densius areolatis.*

6. **C. stissotheca** C. Müll.; monoicum, laxe cespitosum; caulis erectus, innovationibus parce dichotome ramosus; folia laxe conferta latiuscula brevia, sicca parum crispula; folia lamina  $\frac{2}{3}$  producta inaequalis, ala unica in medio laminae apicalis connata acuta; l. dorsalis e basi angustissima sensim dilatata; l. apicalis lato-lanceolata obtusiuscula, nervo genuflexo rubiginoso evanido; omnes laminae integerrimae, e cellulis densiusculis mollibus robustiusculis intense viridibus pachydermibus areolatae; pedunculi in ramulis exsertis tenerrimis terminalibus vel lateralibus terminales, brevissimi tenerrimi subcarnosi, plerumque aggregati; theca minuta oblonga, deoperculata globosa, sicca rugulosa, recta, operc. conico brevi carnosissimo subobliquo, calyptra junior campanulata; perist. d. perbreves bifidi fugaces.

*Fissidens stissotheca* Hmp. in litteris.

*Patria.* Brasilia, prov. St. Catharina ad ripas: Blumenau, pharmacopola et colonus Hercynicus 1849 legit.

*C. osmundioidi* haud dissimile.

Sectio II. **Reticularia** C. Müll. — Caulis humilis terrestris acrocarpicus, foliis laxissime reticulatis; perist. d. longi angusti bifidi.

*Areofissidens* C. Müll. I. p. 46.

a. *Folia immarginata.*

7. **C. splachnifolium** C. Müll.

*Fissidens splachnifolius* Hsch. Syn. I. p. 46.

8. **C. pellucidum** C. Müll.

*Fissidens pellucidus* Hsch. Syn. I. p. 47.

9. **C. hyalinum** C. Müll.; laxissime reticulatum minutum maxime hyalinum, lamina apicali enervi, lamina folii vera subenervi.

*Fissidens hyalinus* Hook. et Wils. Syn. I. p. 47. — Sullivant. Musc. Allegh. Exs. No. 180!

b. *Folia marginata.*

10. **C. reticulosum** C. Müll.; monoicum; minutulum; folia 3-juga oblonga acuminata, lamina apicali folium ae-

quante *anguste marginata*, integerrima, nervo angusto viridi longe sub apice evanido, cellulis magnis subrhombis hyalinis; theca minima ovata obliqua subinclinata, hic illic erecta, brunnea, operc. magno longiori, ore angusto pallido, calyptra operc. tantum obtegente conica; perist. d. longi angusti.  $\frac{1}{4}$ .

*Fissidens reticulosus* Schimp. in litteris.

*Patria.* Mexico, Mirador: Liebmann.

A *C. pellucido* proximo foliis marginatis facile distinguitur. Flores *C. bryoidis*.

### 11. *C. palmatum* C. Müll.

*Fissidens palmatus* Hdw. Syn. I. p. 48.

Sectio III. **Sciarodium** C. Müll. — Caulis humilis terrestris acrocarpicus, foliis plus minus dense areolatis et opacis; perist. d. longi angusti bifidi.

#### a. *Elatiora.*

### 12. *C. osmundioides* C. Müll.

*Fissidens osmundioides* Hdw. Syn. I. p. 60.

#### b. *Tenella.*

13. ***C. radicans*** Mont. (Ann. d. sc. nat. 1840. XIV. p. 345 sub *Fissidentis* nomine interim dato!); *monoicum*, gregarium pusillum, siccitate crispabile subdivisum virescens; folia 10 — 14-juga brevia oblonga obtusiuscula vix acuminata; folii lamina vera dilatata, ad  $\frac{1}{2}$  producta subaequalis; l. dorsalis basi angustissima; l. apicalis subcanaliculata; omnes laminae cellulis prominentibus ubique tenuissime denticulatae, subopacae; nervus albulus v. flavescens ante apicem evanescens; theca in ped. geniculato-ascendente tenerrimo brevi erecta, anguste oblonga v. cylindrica exannulata parvula, operc. conico rostrato longo recto, calyptra conica, basi sublacerata, elongate cylindrica angusta; perist. d. ad medium usque in crura brevia duo fissa.

*Patria.* Guiana, corticibus adrepat, non autem ad imum arborum vivarum truncum, at vero sic excelse positum, ut ne manu quidem decerpi possit: Leprieur.



14. **C. laxifolium** C. Müll.

*Fissidens laxifolius* Hsch. Syn. I. p. 63.

15. **C. asterodontium** C. Müll.; *dioicum*, humile simplex, siccitate subfalcatum, madefactum strictum; folia 8-juga lato-lanceolata; folii lamina vera inaequalis, una ala medio alterius connata obtusa, brevis; l. dorsalis basi angusta, saepe supra basin enata, sensim latior; l. apicalis acuta; omnes laminae *integrae* immarginatae, parum erosae, e cellulis *crassis aequaliter hexagonis pellucide viridibus inanibus grosse areolatae*, nervo *fuscescente* sensim ante apicem evanido; folium perichaetiale intimum angustum; theca in pedunculo geniculato-ascendente cylindrico-ovalis, ore angustior, operculo conico subulato recto longo, calyptra conica, basi laciniata, tenera; perist. d. sicci *stellatim reflexi horizontales*, madefacti inflexi.

*Patria.* Brasilia, St. Catharina, in sylvis montosis humidis, in terra ad flumen Itajahi: Pabst m. Septbr. 1846 lgt.

A *C. radicante* proximo notis cursive impressis differt. Flos masc. terminalis; fol. perig. lamina vera parva, alis apice sinuato-rotundatis, l. dorsali supra basin enata vel subobsoleta, l. apicali acutiore.

16. **C. amoenum** C. Müll.

*Fissidens amoenus* C. Müll. Syn. I. p. 66.

17. **C. serratum** C. Müll.

*Fissidens serratus* C. Müll. Syn. I. p. 65. — *F. Wilsoni* Mont. in litteris! — *F. denticulatus?* Mont. in Musc. Neelgher.

*Patria.* Montes Neelgherienses: Perrottet.

18. **C. Braunii** C. Müll.; *dioicum*; *C. serrato* simillimum, simplicissimum, tenerum, lutescens, eleganter pennatum; folia 8—10 juga, siccitate vix curvata, madore strictissima, anguste lanceolata breviter acuminata, *minutissime areolata*; folii lamina ultra medium producta latior *minute denticulata*; l. dorsalis basi angusta, apicem versus latior et *minute denticulata*; nervus excurrens tenuiusculus *pallens subflexuosus*; folia perich. *ad*

*laminam veram basi albescenti-marginata integra, dorso elamellosa, in laminam apicalem longiusculam producta; theca in ped. perbrevis geniculate ascendente rubro laevi suberecta, minute oblonga aequalis, operc. conico oblique subulato; perist. angustum purpureum.*

*Patria.* Java ad radices plantarum: Blume. Hb. Al. Braun.

Ex analogo *C. serrato* ad *Conomitrium* adscriptum; nam calyptram non vidimus.

Gen. II. **Fissidens** Hdw.

Calyptra conico-dimidiata vel perfecte dimidiata; perist. dentes longi angusti bifidi purpurei.

Sectio I. **Pachyfissidens** C. Müll. I. p. 45. — *Folia rigidissima coriacea, saepius e stratis cellularum compluribus constructa, homomalla, vix unquam crispula, opaca.*

a. *Fructus lateralis.*

1. **F. grandifrons** Brid. Synops. I. p. 46. — *Folia e stratis cellularum compluribus composita.*

*Patria.* Ex Algeria retulit Durieu; in Pyrenaeis plantam masculam legit Spruce prope Bagnères de Bigorre. Planta insulae Bourbonis species propria erit!

Flores masc. medio caulis positi, illis *F. adiantoidis* similes, 5—8-phylli. Flores fem. ad Niagaram hucusque tantum inventi.

2. **F. glaucescens** Hsch. Syn. I. p. 51.

b. *Fructus terminalis et lateralis.*

3. **F. maschalanthus** Mont. Syn. I. p. 53.

c. *Fructus terminalis.*

4. **F. fasciculatus** Hsch. Syn. I. p. 67.

5. **F. plumosus** Hsch. Syn. I. p. 68.

6. **F. asplenioides** Hdw. Syn. I. p. 69.

7. **F. campylopus** Mont. Syn. I. p. 66.

8. **F. linealis** Br. et Sch. Syn. I. p. 46.

9. **F. ovatus** Brid. Syn. I. p. 70.

An huc certe pertinens?

Sectio II. **Eufissidens** Syn. I. p. 50. — Folia e stratis cellularum simplicibus constructa, *plus minus pellucide reticulata et mollia*, stricta, crispata vel homomalla.

A. *Fructus lateralis.*

10. **F. taxifolius** Hdw. Syn. I. p. 50.  
 11. **F. subbasilaris** Hdw. l. c.  
 12. **F. adiantoides** Hdw. Syn. I. p. 51.  
 13. **F. polypodioides** Hdw. Syn. I. p. 52.

*Patria.* Martinique. Caulis interdum ramosus.

14. **F. Oerstedianus** C. Müll.; *dioicus*; *F. polypodioidi proximus*, sed caulis frondiformis *latissimus*, superne saepius maxime ramosus, folia *maxime latissima*, *obtussissime acutata* apice remote parcissime dentata; theca in ped. *geniculato-flexuoso-ascendente horizontalis subcylindraceo-oblonga longior*, dentibus longis regulariter bifidis intense purpureis.

*Patria.* America centralis, Costa Rica, inter 5000—8000' elev., mensib. Febr. 1847 legit A. S. Oersted.

Operculum et calyptram non vidimus. *F. polypodioides* theca vix inclinata obovata brevi et fronde multo angustiore primo visu distinguitur.

15. **F. anomalus** Mont. l. c. p. 53.  
 16. **F. filicinus** Dz. et Molkb. l. c. p. 70.

B. *Fructus lateralis et terminalis.*

17. **F. serrulatus** Brid. Syn. I. p. 69.

C. *Fructus terminalis.*

1. *Folia pellucide hexagono areolata laevia.*

a. *Folia marginata.*

α. Inflorescentia hermaphrodita.

18. **F. Zollingeri** Mont. Syn. I. p. 47.

β. Infloresc. monoica.

19. **F. bryoides** Hdw. Syn. I. p. 58.

20. **F. incurvus** Schw. Syn. I. p. 58.

*F. gracilis* Brid. II. p. 700. — *Skitophyllum gracile* La Pyl. Journ. Bot. Desv. 1813. n. 5. t. 36.

*β. fontanus*; caulis longior robustior polyphyllus; folia latiora, limbo ante apicem distincte evanido, apice distinctius denticulata; theca erectior, basi minus strumoso-incrassata et minus arcuata. *F. crassipes* Wilson in Br. Europ. Fasc. 42. c. tab. — *F. fontanus* Schimp. in Sprucei Musc. Pyr. No. 316. — Ob formas intermedias, thecam erectam et humore semper plus minus inclinatum praebentes, a *F. incurvo* nunquam separari potest, sed forma spectabilis.

21. *F. submarginatus* Bruch. Syn. I. p. 56.

22. *F. intermedius* C. Müll. Syn. I. p. 56.

*γ. Infloresc. dioica.*

23. *F. cuspidatus* C. Müll. Syn. I. p. 48.

24. *F. Hegelianus* C. Müll. Syn. I. p. 49.

25. *F. minutulus* Sulliv. Syn. I. p. 56.

Mem. of the Americ. Acad. of Arts and. Sc. III. 1846. p. 58. t. 2.

26. *F. remotifolius* C. Müll. Syn. I. p. 60.

27. *F. leptophyllus* Mont. (Ann. d. sc. nat. XIV. 1840.); *dioicus*; caulis humilis procumbens, simplex v. innovando ramosus, *flaccidissimus*; folia subvigintijuga laxè imbricata *flaccida, latiuscule sculpelliformia*; lam. folii vera ad medium producta, una ala medio laminae apicalis conata obtusa, *infima basi limbo angustissimo albido tenerimo parum marginata*; l. dorsalis ad basin folii latiuscule enata; l. apicalis *late lanceolata obtusiuscula*, una cum l. dorsali immarginata; omnes laminae e cellulis pellucidis hexagonis parvis *tenerrimis reticulatae, dilute virentes, cellulis parum prominentibus vix denticulatae*, nervo crassiusculo flavido ante apicem evanido; theca in ped. brevi flavido erecta oblonga, operc. e basi convexa breviter curvirostro; perist. d. purpurei, in crura inaequalia duo apice pallida fissi.

*Patria.* Guiana, ad terram nudam in sylvis humidis montosis Kau: Leprieur m. Maji 1838.

Calyptra ignota procul dubio dimidiata. Notis cur-sive impressis species distinctissima.

b. *Folia immarginata.*

a. *Folia rotundato-obtusa.*

**28. F. obtusifolius** Wils. Syn. I. p. 64.

Musc. Allegh. Sullivant. Exs. No. 181.

β. *Folia lanceolata.*

†. *Infloresc. monoica.*

**29. F. oblongifolius** Hook. et Wils. Syn. I. p. 62.

**30. F. Taylori** C. Müll. Syn. I. p. 65.

**31. F. Bloxami** Wils. Syn. I. p. 66.

Bryol. Europ. Fasc. 42. c. tab.

*Patria.* Heerstpierpoint (Sussex) et in aliis locis Angliae occidentalis: Wilson, Mitten.

††. *Infloresc. dioica.*

**32. F. pygmaeus** Hsch. Syn. I. p. 63.

**33. F. exiguus** Sulliv. (Musc. Allegh. p. 44 et Exs. No. 182!); *dioicus*; caulis gregarie cespitosus amoene viridis brevissimus; folia 5—9-juga, e basi angusta subspathulatâ oblonga obtusiuscule lanceolata, integerrima mollissima, amoene viridia, subpellucide laxiuscule reticulata; lamina dorsalis supra basin folii enata, basi angustissima; lam. folii vera ad medium producta; nervus flexuosus *albescens* ante apicem abruptus; theca in ped. brevi flavido tenerrimo subobliqua, vel erecta minuta ovalis, deoperculata urceolata, pallida, operc. conico suboblique rostellato *turgido* rubro, calyptra conico-dimidiata; perist. d. *angustissimi* ad medium fissi rugulosi purpurei.

Synops. I. p. 64. — Mem. of the Americ. Acad. of Arts and Sc. III. 1846. p. 60. t. 2.

*Patria.* In sylvis ad rivulorum exsicc. lapides pr. Columbus Ohionis copiosissimus.

Species notis cursive impressis pulchra.

**34. F. subcrenatus** Schimp. (in litteris!); *dioicus*; frondes complures ex eadem basi, 1—1½ lineas altae, obliquae imbricatae; folia 5—6 juga, *sordide ferruginea*, infima minima, superiora majora lanceolata, ad medium duplicata, immarginata, subcrenata, summa subintegra,

nervo solido ferrugineo, in summo apice evanescente, cellulis rotundato-hexagonis; theca in ped. basi geniculato brevissimo erecta, oblonga minuta; perist. *F. bryoidis*. †.

*Patria.* Mexico, Mirador: Liebmann m. Januar. deoperc. legit.

A *F. prionode* proximo foliis brevioribus, latioribus, minus crenulatis, cellulisque duplo majoribus differt. — Huc pertinere videtur.

Incertae sedis.

35. *F. turbinatus* Tayl. (Lond. Journ. of bot. 1848. p. 190.); dioicus? caulis laxius cespitosus erectus simplex, apice subincurvus, pallide viridis, subuncialis; folia erectiuscula, deorsum *heteromalla* (homomalla?), e basi latiore *elongate linearis-lingulata*, *integerrima*, obtusa; theca terminalis erectiuscula elongato-turbinata, *basi strumosa*, operc. conico acuminato-rostrato. †.

*Patria.* Pichincha prope Quito: W. Jameson m. Dec. 1846.

Ex auctore characteribus laudatis a *F. adiantoide* (fructu tamen laterali jam longe distante) refugit.

36. *F. linearis* Brid. Syn. I. p. 71.

2. *Folia dense areolata, plus minus opaca, papillosa.*

a. *Folia marginata.*

α. Infloresc. hermaphrodita.

37. *F. semimarginatus* C. Müll. Syn. I. p. 55.

β. Infloresc. androgyna.

38. *F. androgynus* Bruch. Syn. I. p. 57.

γ. Infloresc. monoica.

39. *F. rufescens* Hsch. Syn. I. p. 54.

40. *F. Hornschuchii* Mont. l. c. p. 54.

δ. Infloresc. dioica.

41. *F. curvatus* Hsch. Syn. I. p. 59.

42. *F. Ceylonensis* Dz. et Molkb. Syn. I. p. 59.

43. *F. crispus* Mont. Syn. I. p. 61.

44. *F. dimorphus* C. Müll.; *dioicus*, pusillus simplex; folia caulis fertilis 8 — 10-juga, sterilis c. 18-juga, crispa, apice caulis subfalcata, madefacta stricta, lanceolata, *dimorpha*: *perichaetialia laminâ folii vera albido-marginata, caulina laminâ immarginata*; omnia nervo excurrente albido praedita; laminae ceterae immarginatae, e cellulis minutissimis viridibus opacis areolatae, subintegerrimae; theca in ped. geniculato-ascendente brevi ovalis parva subrecta.

*Patria.* Brasilia, insula St. Catharina, ad lapides sylvarum montosarum densissimarum prope Destero: Pabst m. Apr. et Jun. 1847.

*F. Hornschuchii* habitu similis, sed notis laudatis sat diversus.

45. *F. Ravenelii* Sulliv. (Contrib. to the Bryology and Hepat. II. p. 171. t. 2!); *dioicus*; caulis pusillus gregarie cespitosus rufo-virens v. viridis, declinatus, apice decurvus; folia caulina 8 — 16-juga dense imbricata, sicca et madefacta apice decurva, minute lanceolata, angusta, immarginata, ubique *tenuissime crenulata*, subtilissime areolata, opaca, papillosa, nervo canaliculato *flavido vel ferrugineo* excurrente; lamina folii vera ad  $\frac{1}{2}$  producta; l. dorsalis basi angustissima; *perichaetialia* cum lamina folii vera ventricosa, margine crassiuscule *flavide* limbata; theca in ped. geniculato-ascendente brevi flavido, innovando pseudolaterali, ovalis parva recta *subverrucosa*, operc. brevi oblique acuminato, calyptra conica dimidiata glabra; perist. d. angusti.

Memoirs of the Americ. Acad. of Arts and Sciences. Vol. IV. New Series 1849. p. 171. t. 2.

*Patria.* Carolina meridionalis, ad terram humidam prope „Santee Canal”: H. W. Ravenel m. Martii 1847 detexit; ad Society Hill: M. A. Curtis.

A *F. dimorpho* affinissimo notis laudatis differt.

b. *Folia immarginata.*

α. Infloresc. monoica.

46. *F. capitatus* Hook. et Wils. Syn. I. p. 61.

β. Infloresc. dioica.

47. **F. Mangarevensis** Mont. Syn. I. p. 62; *dioicus?*

48. **F. flabellatus** Hsch. l. c. p. 62.

49. **F. longifolius** Brid. l. c. p. 65; *dioicus?*

50. **P. prionodes** Mont. l. c. p. 67; *dioicus!* humilis; folia sordide ferruginea, anguste lineari-lanceolata, nervo crasso ferrugineo excedente breviter pungentia, ubique serrulata, grossiuscule papilloso-areolata.

51. **F. Guianensis** Mont. (Ann. d. sc. nat. 1840. XIV. p. 340.); *dioicus?* caulis simplicissimus declinatus parvulus; folia 6—8-juga laxa v. contigua, rarissime vel suprema subimbricata, distiche patentia, infima minima, inde sensim majora, madore ac siccitate incurvo-secunda crispula, oblongo-linguiformia, apice obtuse subacuminata, margine infero basin versus in caule non confluentia, sed limbo suo rotundato ab eo distantia; lamina folii ad  $\frac{1}{2}$  producta; omnes laminae ubique subtilissime denticulatae; nervo continuo diaphano percursa, tenuissime subquadrato-areolata, amoene viridia; perich. unicum minutum obtusissimum; theca in ped. geniculato-ascendente erecta, oblonga subinaequalis, sub ore rubro constricta, ob flexuram pedunculi tantillum inclinata, operc. conoideo-acuminato recto; calyptra cucullata; perist. d. in crura duo longa pallida fissi purpurei. †.

*Patria.* Guiana Gallica, ad arborum corticem in summo monte Matouri insulae Cayennae: Leprieur.

Ex habitu *Conomitrio radicans* affinis.

52. **F. elegans** Brid. (II. p. 691.); *dioicus?* caulis longiuscule erectus simplicissimus gracillimus elegantissimus virens; folia 20-juga approximata linearia obtusa, interdum mucronulata, tenuissima, integerrima, nervo continuo instructa, subtilissime circulari-areolata; theca in ped. terminali minutissimo 4-lineari solitario luteo suberecta, oblonga aequalis, sub ore constricta, olivaceo-rufa, operc. e basi conica longirostrato thecam aequante, basi rufescente, superne luteolo, calyptra cucullata; perist. dentes profunde bifidi. †.



*Skitophyllum elegans* La Pyl. Journ. Bot. Desv. 1813. No. V. p. 43. t. 36. f. 18.

*Patria.* Hispaniola: Poiteau.

Incertae sedis.

53. **F. genunervis** C. Müll. Syn. I. p. 70.

Species dubiae.

1. **F. acacioides** Brid. Syn. I. p. 71.

Species nomine tantum memoratae.

1. **F. lanceolatus** Bruch. Syn. I. p. 73.

2. **F. nobilis** Griffith in Muscis Assam.; in Lond. Journ. of bot. 1848. p. 273 memoratus.

## II. Polystichophylla.

Folia in series tres et plures rectas vel alternantes disposita.

A. *Folia (in sectione transversali) ductibus intercellularibus instructa.*

Trib. VIII. LEUCOBRYACEAE. I. p. 73.

Folia e cellularum columnarium parenchymaticarum inanium stratis compluribus composita; ductus intercellulares in serie unica curvata inter cellulas interpositi 3—4-angulares chlorophyllosi.

Gen. I. **Leucóbryum** Hmp. I. p. 74.

Ductus intercellulares folii 4-angulares; calyptra dimidiata; perist. simplicis dentes superne bifidi 16 purpurei.

4b. **L. chlorophyllum** C. Müll.; cespites latissimi densi rigidiusculi intense glauco-albidi, humiles; caulis brevis subramosus apice subincurvus; folia subsecunda, *facillime emollientia*, e basi oblonga inferne angustiore *distincte falcato-lanceolata, haud flexuosa, nunquam radiculosa acuta, summo apice tantum dorso parcissime verrucosa, margine omnino integerrima*, e basi ad medium usque *distincte marginata, ductibus intercellularibus maxime translucentibus et chlorophyllosis amoene reticu-*

*lata*, breviora, angustiora, *perfecte canaliculata*; perich. exteriora immarginata, intimum superne reflexum; theca in ped. elongato purpureo tortili inclinata breviter oblonga macrostoma siccitate multoties plicata, basi distincte strumosa, operc. longe conico et oblique subulato; perist. d. purpurei longi bifidi valde trabeculati.

*Syrrhopodon rigidus* Duby in Zollinger. Pfl. No. 3370!

*Patria.* Insula Sumbawa Archipelagi Indici: Zollinger.

A *L. Martiano* simillimo omnibusque congeneribus ductib. intercellularibus descriptis facile distinguitur; a *L. sancto* notis cursive impressis longe distat.

4c. *L. mucronifolium* Al. Br. (in litteris!) *L. chlorophylloso* simillimum, sed folia falcato-lanceolata *in mucronem distinctum fuscidulum acutum spiniformem producta*, ubique dorso *glaberrima*, e cellulis multo minoribus *densius reticulata*, ductibus intercellularibus *nunquam translucentibus*.

*Patria.* Java: Blume. Hb. Al. Braun.

Sterile solum examinavimus.

11. *L. giganteum* C. Müll. I. p. 79; pedunculi elongati, theca obovata arcuata, basi strumulosa, olivacea, operc. conico longirostrato purpureo; perist. d. elongati robusti.

*Patria.* Venezuela, Galipan, alt. 5000' m. Januar. c. fruct. ad terram: Funck et Schlim in Coll. Linden. No. 359, et ibidem in prov. Carabobo ad Cumbre de Valencia, alt. 5000' m. Maji c. fruct. supramaturis ad truncos arborum putridos, No. 618.

Gen. II. **Schistomitrium** Dz. et Molkb. I. p. 80.

Ductus intercellulares praecedentis; calyptra campanulata; perist. d. integri sedecim.

2. **Sch. speciosum** Hmp. (Bot. Zeit. 1847. p. 922.); theca angustissime cylindrica; calyptra distincte cylindrico-campanulata angustissima, basi brevissime ciliata, fuscidula.

*Leucophanes speciosum* C. Müll. Synops. I. p. 81. — *Spirula speciosa* Dz. et Molkb. in Musc. Frond. Archip. Ind. p. 72. t. 26. — *Syrrhopodon speciosus* Dz. et Molkb. in Ann. d. sc. nat. 1844. 2. p. 315.

*Patria.* Java, in monte Gédé: Zippelius; in sylvis montis Prabakti, ad arborum truncos, altitudine c. 2400 pedum: Zollinger.

Gen. III. **Leucóphanes** Brid. I. p. 81.

Ductus intercellulares praecedentis; calyptra dimidiata; perist. d. sedecim breves lineares integri.

b. *Folia nervosa.*

4b. **L. Blumii** C. Müll.; *L. octoblepharoidi* simillimum, sed sordide glaucum, folia fragilia anguste lanceolata subreflexa, e basi subvaginante latiuscule pellucida quadrate reticulata in subulam brevem lanceolatam nervo lato tereti crasso dorso scabro omnino fere occupatam apice obtusiusculam eroso-serrulatam producta, supra basin obnervum crassum lamina vix conspicua instructa, limbo incrassato sordide albido brevissime ciliato circumducta, ductibus intercellularibus in nervi medio tantum conspicuis quadratis minutis in lineam arcuatam congestis; perich. angustissima acutiora; theca in ped. brevi tenui laevi fusco erecta, minute oblonga microstoma, basi subpapillosa, recte subulato-operculata, calyptra angustissima cucullata, superne scabriuscula, basi fissa obtecta; perist. d. rufi conniventes lineares trabeculati et nodoso-denticulati, per paria paullulum approximati.

*Syrrhopodon Blumii* Nees in hb. A. l. Braun.

*Patria.* Java: Blume.

A *L. fragili* caract. explicatis omnibus certe differt.

Gen. IV. **Arthrocormus** Dz. et Molkb. I. p. 85.

Ductus intercell. quadrangulares; calyptra dimidiata; perist. d. 16 lanceolati integri breves.

Gen. V. **Octoblepharum** Hdw. I. p. 86.

Ductus intercell. triangulares; calyptra dimidiata; perist. d. 8 lanceolati.

Trib. IX. SPHAGNACEAE. I. p. 87.

Folia e cellularum prosenchymaticarum inanium strato unico composita; ductus intercellulares inter cellulas duas interpositi chlorophyllosi.

Gen. I. **Sphagnum** Dill. I. p. 88.

Calyptra thecam totam includens, dein disrum- pens.

2. **Sph. macrophyllum** Bernh. I. p. 91.

*Patria.* America sept., juxta Wilmington Carolinae superioris speciem ipsissimam leg. Sullivan t.

3. **Sph. cymbifolium** Ehrh. I. p. 91.

*Sph. latifolium* Hdw. Sp. Musc. p. 27. — *Sph. obtusifolium* Ehrh. Crypt. p. 241.

7. **Sph. squarrosum** Pers. I. p. 97.

*Sph. squarrulosum* Lesquereux in schedis! Forma tenella gracilior! In m. Jura, loco Marais des Ponts lectum.

8. **Sph. Meridense** C. Müll. I. p. 95.

*Patria.* Columbia, Silla de Caracas, alt. 6500': Funck et Schlim in Coll. Linden. No. 344; m. Januar. 1845 sterile lectum.

9b. **Sph. pulchricoma** C. Müll. I. p. 102; folia peduncularia fibris annularibus carentia, latissime ovalia concava subimplana obtuso-acuminata, *ubique fere e cellulis incrassatis densis reticulata, igitur immarginata; theca Sph. cuspidati.*

*Patria.* Brasilia, prov. St. Catharina, locis uliginosis inter fruticeta ad flumen Itajahi pulcherrime fructiferum legit Pabst Nov. et Dec. 1846.

10. **Sph. acutifolium** Ehrh. I. p. 96.

*Sph. fimbriatum* Hook. et Wils. in Fl. Antarct. II. p. 398.

*Patria.* Insulae Falklandi et Eremitae: J. D. Hooker.

**12. Sph. compactum** Brid. I. p. 98.

*Sph. strictum* Sulliv. Musc. Allegh. Exsicc. No. 201 et Synops. I. p. 104. — *Sph. tabulare* Sulliv. l. c. No. 204 et Synops. I. p. 104.

*δ. ramulosum*; Syn. I. p. 99. *Sph. molle* Sulliv. Musc. Allegh. Exs. No. 205 et Syn. I. p. 104.

**13. Sph. molluscoides** C. Müll.; Syn. I. p. 99.

*Sph. acutifolium* var.? Sulliv. Musc. Allegh. Exs. 203!

*Patria.* In arenosis hyeme inundatis circa Mobile, Alabamae: Sullivant.

**14. Sph. subsecundum** Nees I. p. 100.

*Patria.* Ohio, Columbus: Sullivant.

## Species incertae sedis.

**19. Sph. Torreyanum** Sulliv. (Mem. of Americ. Acad. of Arts and Sc. IV. 1849. p. 174.); robustum, sordide fuscescens; caulis pedalis longior firmus divisus, ramulis 4—5 fasciculatis inferne remotis, superne confertis, 12—15 lin. longis, 3—4 lin. latis, lineari-lanceolatis, complanatis plumulosis laxe foliosis; folia patula convoluta elongato-lanceolata apice tubiformia minute eroso-dentata, margine e cellulis exilissimis 4—5 seriatim conflato circumducta, serpentino-reticulata, sectione transversali cellulas linea spirali notatas magnas subrotundas exhibentia, ductibus chlorophyllosis minutis triangularibus exterius interpositis. †.

*Patria.* America septentrionalis, Essex County, New York: Dr. Torrey sterile legit.

*S. laxifolio* peraffine videtur. Areolatio folii *S. cuspidati*.

**B. Folia ductibus intercellularibus nullis.**

**I. Folia epapillosa.**

**1. Laxe areolata.**

**Trib. X. FUNARIOIDEAE. I. p. 105.**

Folii areolatio parenchymatica laxa chlorophyllosa.

Subtrib. I. FUNARIAEAE. I. p. 105.

Flos masculus disciformis, in ramo proprio radicali terminalis vel in axillis foliorum nudus. Perist. obliquum asymmetricum.

Gen. I. **Funaria** Schreb. I. p. 106.

Calyptra dimidiata. Peristom. duplex vel internum interdum obsoletum. Dentes ext. sedecim, lanceolati obliqui, cristato-appendiculati; interni totidem membranacei.

2. Peristom. exacte duplex.

b. *Theca laevis.*

a. *Folia obtusata.*

5. **F. obtusata** Schimp. (in litteris!); humilis; folia patienti-recurva, *lingulata obtusa, planiuscula, superne crenulata*, nervo sub apice evanido; theca in ped. 6—9 lineas alto, siccitate dextrorsum torto obliqua, *parvula breviter pyriformis, collo sporangio subsphaerico longiore arcuato*, operc. deplanato-convexo, umbonato, annulo nullo; perist. *F. serratae*. †.

*Patria.* Mexico prope Mirador: Liebmann m. Aug.

6. **F. Jamesoni** Tayl. (Lond. Journ. of bot. 1848. p. 189.); caulis laxe cespitosus erectus simplex basi nudiusculus bilinearis; folia in rosulam congesta, ex angusta basi *rotundato-oblonga obtusissima* apiculata evanidiner-  
via subintegerrima pallide viridia, nervo brunnescente; theca inclinata *elongate* pyriformis laevis, apophysi obconica longitudinaliter rugosa, operc. *plano emammillato*; perist. d. ext. obliqui trabeculati opaci, int. pallide brunnei pellucidi latiuscule cellulosi. †.

*Patria.* Monte Pichincha Andium Quitensium: W. Jameson, Dec. 1846.

Auctor c. *F. Fontanesii* comparavit. Ab hac specie notis cursive impressis differre dicitur. Pulchra sp. videtur.

β. Folia ovata.

7. **F. convexa** Spruce (Musc. Pyr. 149 et Ann. and Magaz. of Nat. Hist. 1849. No. 197.); *monoica*; *F. Mühlenbergii* simillima, sed folia omnia e basi angusta *latissime spathulato-ovata apiculata*, concava, laxissime majusculè reticulata, nervo tenui longe infra apicem evanido percursa, supra medium serrulata; theca in ped. dextrorsum contorto, operculo *convexo, neutiquam convexo-conico*, calyptra *persistente, deorsum apiculata*.

*F. serrata* Br. Europ. Fasc. XI. p. 8. t. 3. — C. Müll. Synops. I. p. 111. — Synonymum Belvisianum deleatur!

*Patria.* Ad fossarum margines Sardiniae: Fr. Müller. In Pyrenaeis occid., in aggeribus arenosis planitiei, societate *F. Mühlenbergii*, ad St. Sever: Spruce. — Incunte aestate. ☉.

A *F. serrata* P. B. vera theca erecto-arcuata pyriformi plagiostoma longicolla primo adspectu distinguitur.

8. **F. Fontanesii** Schw. (Suppl. I. II. p. 80. t. 66!); *F. convexae* simillima, sed theca erecta *vix asymmetrica et vix curvula, entosthodontoidea, e collo brevissimo obconico-pyriformis, operc. breviter conico*.

C. Müll. Synops. I. p. 112 ex parte. — Ex litteris Montagnei in Hb. Desfontaines. loco speciei hujusce *Weisia verticillata* posita est; an igitur Desfontaines speciem veram Schwägrichenio e Barbaria communicaverit, dubium est.

*Patria.* In Barbaria Desfontaines legisse dicitur; in Algeria e commun. Montagnei hucusque nondum reperta est. Ex Aegypto Persoon habuit, e Lusitania Sprengel. Speciem veram ex insulis Canariensibus ab amic. Montagne communicatam vidimus.

*F. Mühlenbergii* theca valde asymmetrica e collo longo oblique globoso-pyriformi atque foliis longe acuminatis facile distinguitur.

9. **F. laxissima** C. Müll.; *F. Mühlenbergii* simillima, folia e basi angustiore spathulata, *latissime ovata, obtuse acuta vel breviter apiculata, integerrima, flaccidissima, e cellulis ubique maximis amplissimis laxissimis tene-*

*ris amoene chlorophyllosis reticulata, nervo tenui longe infra apicem evanido; theca in ped. breviusculo rubente erecta, e collo brevi oblique globoso-pyriformis asymmetrica, exannulata, operc. conico acuto.*

*F. Fontanesii* Brid. II. p. 739! — C. Müll. Synops. I. p. 112 ex parte.

*Patria.* Brasilia, unde *Persoon* habuit.

A *F. Hibernica* foliorum forma atque structura et operculo conico refugit; a *F. convexa* foliis amplissime reticulatis amoene chlorophyllosis integris et operc. conico distat; a *F. serrata* jam thecae forma distinguitur; a *F. Fontanesii* thecae forma foliisque integris amplissime reticulatis valde chlorophyllosis recedit; cum caeteris congeneribus commutari nequit.

10. **F. subnuda** Tayl. (Lond. Journ. of bot. 1846. p. 57!); caulis aggregatus erectus simplex, basi subnudus, semiuncialis; folia flavido-viridia, late ovata acuta, maxime concava, apice subserrulata, nervo vix pertingente; pedunculus theca duplo longior; theca exannulata erectiuscula laevis ovata elongate apophysata, operc. plano; perist. ext. d. lanceolati obliqui, int. brevissimi obtusi valde irregulares; calyptra basi inflata, apice inclinata. †

*F. physcomitrioides* var. Wils. — Syn. I. p. 111!

*Patria.* Nova Hollandia, ad Swan River: *J. Drummond*.

Ex obs. *F. physcomitrioidis* ob notas laudatas species distinctissima putanda est.

11. **F. glabra** Tayl. Syn. I. p. 112.

γ. Folia spathulato-lanceolata.

12. **F. serrata** P. B. (in Brid. Bryol. univ. II. p. 57 et in Mant. Musc. p. 124!); monoica; folia perich. elongate spathulato-lanceolata, carinata, distinctius superne serrata, nervo crassiore excurrente percursa, e cellulis elongatis angustioribus viridissimis chlorophyllosis basi maximis tenerioribus quam ad apicem reticulata; theca in ped. elongato rubro stricto inclinata, e collo brevi glo-



*bosa, discelioidea parvula, rubra, exsiccata evacuata valde arcuata nitida, laevissima, operc. planiusculo; perist. d. ext. intense purpurei, anguste lanceolati, int. illos aequantes angustissime subulati fusci subrugulosi; sporae tuberculosae.*

Sulliv. Musc. Allegh. Exs. No. 126. — Drumm. Musc. Amer. No. 76.

*Patria.* America septentrionalis, ubi in Pensylvania primus detexit Palisot de Beauvois; in Alabama pulcherrime legit Sullivant.

E thecae forma discelioidea primo visu ab omnibus congeneribus differt.

♂. Folia longe acuminata.

**13. F. Mühlenbergii Schw. Syn. I. p. 109.**

*Patria.* Istria, prope Dignano: Sendtner. In Pyrenaeis occ., in solo arenoso circa St. Sever reg. montosae inferioris; in Pyren. centr., in rupib. calcareis terra obtectis juxta thermas de Salut dictas, Bagnères de Bigorre: Spruce.

**14. F. Hibernica Hook. Syn. I. p. 109.**

*Patria.* Torrette pr. Spalato Dalmatiae: Sendtner.

**15. F. physcomitrioides Mont. I. p. 111. — monoica!** caulis pusillus; theca subsymmetrica globoso-pyriformis erecta; fol. perigonialia in rosulam discoideam congesta, latissime ovata apiculata, evanidinervia.

Gen. II. **Pyramidium** Brid. I. p. 113.

Calyptra tetragona pyramidata, thecam totam includens, persistens, inflata.

Gen. III. **Physcomitrium** Brid. I. p. 114.

Calyptra mitraeformis, basi in plures lacinias fissa, interdum lamellis sulcata basi subintegra, operculum obtegens. Peristom. nullum.

A. *Theca exserta.*1. **Ph. acuminatum** Br. et Sch. I. p. 114.

*Patria.* In Pyrenaeis supra viculum Bagès vallis d'Ossau in muro e limo constructo rarissime legit Spruce in zona montosa superiore.

3. **Ph. Thieleanum** Hmp. I. p. 116.

*Patria.* Brasilia, Sta. Catharina, ad flum. Itájahi in agris cultis coloniae Germanicae, m. Aug. et Sept. 1846: Pabst.

3b. **Ph. subsphaericum** Schimp. (in litteris!); caulis perbrevis; folia patula flexuosa, oblongo-ovata, superiora interdum late lanceolata acuminata, deplanato-concava, margine dense et *argute dentata*, nervo sub apice evanido, *cellulis minoribus*; theca in ped. trilineari erecta, deoperculata *hemisphaerica*, nec pyriformis, operc. deplanato-convexo, oblique rostellato, calyptra margine lacera. †.

*Patria.* Mexico, Pico de Orizaba, alt. 11,000' cum Fissidente commixtum: Liebmann.

A *Ph. Thieleano* proximo characteribus laudatis ex auctore differt. Theca *Ph. sphaerici*.

B. *Theca immersa.*a. *Folia enervia.*

5. **Ph. repens** C. Müll.; *monoicum*; caulis longe *repens mollis albidus carnosus valde radiculosus*, ramis *remotissimis* brevissimis dense foliosis erectis fructificantibus clavatis, in ramulos duos divisus; ramulus unus femineus, alter masculus; perichaetium parvulum ramulum femineum totum sistens, foliis *latissime ovata cochleariformi-concava, obtusa, in acumen plus minus longum flexuosum producta*, enervia, margine erecto v. parum involuto, integerrimo, cellulis laxissimis, basi parenchymaticis elongatis, superne prosenchymaticis, pellucidis, inanibus; perigonia minora apiculata; theca breviter pedunculata globosa maxime macrostoma, operc. cupulato

mammillato, calyptra *minutissima* glabra; sporae maximae coriaceae laeves fuscae.

*Schistidium repens* Brid. l. p. 120. — *Anoetangium repens* Hook. Musc. Exot. t. 106. — Schw. Suppl. III. l. 1. t. 208.

*Patria.* Nova Hollandia, ad plagam occidentalem: Menzies 1791. Ad Swan River sub Bryis: Preiss sub No. 2454 ex parte!

6. **Ph. enerve** C. Müll.; *monoicum*; *gregarium* vix lineare brevissimum simplex; folia dense imbricata, humore laxe patula, cochleariformi-concava, late ovata *breviter apiculata*, enervia integerrima, margine erecto, albescentia, siccitate haud contractilia, laxe rhomboidaliter reticulata; perich. longiora conniventia; theca subsessilis globosa exannulata, operculo *planiusculo*, haud mammillato, calyptra *omnino obtecta magna* campanulata albida membranacea, *lamelloso-sulcata*. †.

*Goniomitrium enerve* Hook. et Wils. Lond. Journ. of bot. 1846. p. 142. t. 3. A.

*Patria.* Nova Hollandia, ad Swan River: James Drummond in terra rubra legit.

A *Ph. repente* simillimo characteribus laudatis longe differt.

b. *Folia nervosa.*

7. **Ph. Goniomitrium** C. Müll.; *monoicum*; *Ph. enervi* simillimum, *subsimpler*, *duplo longius speciosius*; folia *ovato-lanceolata longe acuminata*, *nervo valido subexcurrente percursa*, rigidula, laxius imbricata, *minus concava*, *siccitate contracta*, *subflexuosa*, *viridia*; perich. longius acuminata, theca longius pedunculata *subemersa*; theca, operculum et sporae *Ph. enervis*, calyptra majore magis albescente costis *vix prominulis*. †.

*Goniomitrium acuminatum* Hook. et Wils. Lond. Journ. of bot. 1846. p. 143. t. 3. B.

*Patria.* Nova Hollandia, in solo nigro: J. Drummond ad Swan River legit.

8. **Ph. serratum** C. Müll.; *monoicum*; flores masculi *nudi in axillis foliorum omnium caulinorum*; *cespitulo-*

*sum*, erectum breviusculum amoene lutescens, ramosum; folia elongate anguste lanceolata *serrata*, subcarinata, laxissime reticulata pellucida albida, nervo subvalido subexcurrente; perich. superne magis dilatata; theca brevissime pedunculata in perichaetio *maxime patulo* parum conspicua, globosa, *medio rumpens*, exannulata tenerrima, operc. *magno cupulato mammillato*, calyptra campanulata *parva*, basi laciniata, *superne angusta longiuscula glabra*.

*Schistidium serratum* Hook. et Wils. in Drumm. Musc. Amer. No. 20 et Sulliv. Musc. Allegh. No. 198. — C. tab. in Mem. of the Americ. Acad. of Arts and Sc. III. New. Ser. 1846. p. 60. t. 2. — *Aphanorhegma serrata* Sulliv. in litteris!

*Patria.* Ad terram udam in Virginia et Ohione, haud rarum: Drummond, Sullivant.

A *Ph. Goniomitrio* notis laudatis longe differt.

#### Species incerti generis.

6. **Ph. laxum** Hook. et Wils. (Fl. Antart. II. p. 399. t. 151. f. 5.); cespites laxe cohaerentes altiusculi; caulis robustus subelatus laxifolius; folia caulina erecto-appressa laxe conferta, e basi angustiore longiusculâ spathulato-ovato-acuminata, integra, e cellulis magnis laxissimis lutescentibus basi longioribus reticulata, nervo ultra medium evanido.

*Patria.* In Archipelago Antartico, Kerguelens Land: J. D. Hooker.

Species memorabilis, sterilis tantum lecta. Ad Physcomitria theca immersa forsan pertineat.

#### Gen. IV. **Entosthodon** Schw. I. p. 120.

Calyptra dimidiata. Peristomium nullum vel simplex, rarius membrana interna brevissima irregulariter vel in dentes fissa duplex. Dentes sedecim lanceolati exappendiculati.

Ob thecam plerumque symmetricam a Funariis differt; melius forsan sectio generis Funariae, cujus theca asym-

metrica et perist. internum in Entosthodontibus quoque observatur.

### I. *Eperistomati.*

#### 4. **E. ericetorum** C. Müll. I. p. 122.

*Patria.* In Pyrenaeis occid. ad fossarum margines circa Pau et St. Sever in planitie et zona montosa inferiore legit Spruce.

6. **E. acidotus** C. Müll.; monoicus; caulis cespitosus pusillus erectus subsimplex, basi nudus, apice complanatus, brunneo-rufus, superne viridis dense foliosus; folia arcte imbricata erectiuscula lanceolata longius acuminata subintegerrima grosse cellulosa, marginibus ad apices incurvis; theca in ped. apice subincurvo scabriusculo obovata, operc. planiusculo; calyptra dimidiata, basi haud ventricosa. †.

*Gymnostomum acidotum* Tayl. Lond. Journ. of bot. 1848. p. 279.

*Patria.* Monte Pichincha ad nives aeternas: W. Jameson, 5. Julio 1847.

Auctor c. *Physcomitrio Bonplandii* comparavit. Ab hocce differre dicitur: foliis latioribus, pedunculo breviori strictiore et theca distinctius apophysata.

### II. *Peristomati.*

#### a. *Folia obtusa.*

#### α. *Folia immarginata.*

7. **E. Durieui** Mont. (Ann. d. sc. nat. 1849. XI. p. 33.); *E. commutato* similis, folia e basi longa perangusta anguste spathulato-ligulata obtusiuscula, integerrima, caviora, laxissime reticulata, amoene chlorophyllosa, tenera, nervo ad medium producto tenui; theca erecta, e collo breviori ovalis, ovato-pyriformis, operc. convexo obtuso; perist. *E. commutati*.

Mont. cum ic. in Fl. Alger. t. 35. f. 4.

*Patria.* Algeria, ad parietes humidias molinendarias nec non ad rupes calcareas umbrosas humidisque prope lapsum rivi Rummel infra Constantine, m. April. et Maji; prope Tlemcen locis similibus: Durieu.

Ab *E. Templetoni* foliorum et thecae forma longe recedit.

8. **E. obtusifolius** J. Hook. Syn. I. p. 125.

β. Folia marginata.

9. **E. marginatus** C. Müll. Syn. I. p. 125.

b. Folia acuminata.

α. Folia integra.

10. **E. commutatus** Dur. et Mont. (Ann. d. sc. nat. XII. 1849. p. 317.); *E. Templetoni* similis, folia multo teneriora, flaccida, laxius reticulata, late oblonga in apiculum longiusculum attenuata, integerrima; theca in ped. sinistrorsum torto erecta, madore e collo longiusculo globosa parvula, perfecte globose pyriformis; operc. convexo cum umbone obtuso; perist. d. validi pro ratione longi lanceolati articulati, punctati, linea media longitudinali exarati, sicco conniventes.

Mont. cum ic. in Fl. Alger. t. 35. f. 3.

*Patria.* Algeria, in collibus Babazoum dictis prope Alger: Durieu.

*E. Templetoni* theca madore subinclinata obovata subclavata foliisque firmis primo visu differt.

11. **E. Bergianus** Br. et Sch. Syn. I. p. 126.

12. **E. curvipes** C. Müll. Syn. I. p. 123.

β. Folia dentata.

13. **E. radians** C. Müll. Syn. I. p. 122.

14. **E. Mathewsii** J. Hook. Syn. I. p. 124.

γ. integer. l. c.; peristomium internum perfectum anguste lanceolatum. *Ent. brachyodus* Mont. in schedis et Fl. Chilens. ined. — *Funaria Fontanesii* Br. et Sch. in Br. Europ. sub *Funaria*, p. 5 et C. Müll. Synops. I. p. 112 memorata.

*Patria.* Chile: Bertero et Gay legerunt.

15. **E. Templetoni** Schw. Syn. I. p. 124. — Theca madore subinclinata, clavate pyriformis.

*Patria.* In Pyrenaeis occid., in Agro Syrtico circa St. Sever et St. Pandelon, ad terram arenosam c. *E. fasciculari*: Spruce in planitie legit.

Gen. V. **Amblyodon** P. B. I. p. 126.

Calyptra cucullata. Perist. duplex; externum: dentes 16 breves lanceolati obtusi integri; internum: dentes totidem lanceolati subulati, longitudinaliter fissiles, externos multo superantes, in membrana brevi positi.

Subtrib. II. SPLACHNACEAE. I. p. 127.

Flos masculus gemmaceo-capituliformis. Peristomium regulare symmetricum.

Gen. VI. **Oedipodium** Schw. I. p. 128.

Calyptra mollis longiuscule angusta dimidiata. Perist. nullum.

Gen. VII. **Tetraplodon** Br. et Sch. I. p. 129.

Calyptra cucullata. Perist. simplicis dentes 16 duplices, quaternatim approximati, lanceolati, siccitate reflexi, madore erecto-incurvi.

Gen. VIII. **Tayloria** Hook. I. p. 132.

Calyptra inflato-campanulata. Perist. simplicis dentes 16—32, infra thecae orificium oriundi, madore incurvi et involuti, siccitate reflexi thecae adpressi vel tortuosi.

4b. **T. Pichinchensis** C. Müll.; caulis laxe cespitosus erectus subsimplex uncialis crassiusculus, basi ferrugineo-tomentosus; folia subimbricata subpatentia ovata ruptinervia dentata submarginata; thecae in ped. sparsis laevibus erectiusculae ovato-cylindratae, basi anguste apophysatae, longirostrate oblique operculatae, annulatae; perist. d. sedecim lanceolati acuminati opaci brunnei aequidistantes, linea longitudinali obsoleta. †.

*Weisia Jamesoni* Tayl. Lond. Journ. of bot. IV. 1847. p. 330.

*Patria.* Monte Pichincha Andium Quitensium: Will. Jameson, m. Novbr. 1846 legit.

A *T. Jamesoni* characteribus cursive impressis facile distinguitur.

6. **T. Rudolphiana** Br. et Sch. I. p. 136.

*Patria.* Bavaria superior circa Portenkirchen: Arnold; ibidem in alpib. Algovicis „in der Spielmannsau“ ad fagum vetustam: Sendtner; ibidem in alpe „Hammersbacher-Alpe“, ad truncos Aceris, socio *Neckerae* (*Leucodontis*) *sciuroidis*, alt. 4400': Sendtner 12. Aug. 1849.

Gen. IX. **Dissodon** Grev. et Arn. I. p. 137.

Calyptra inflato-campanulata. Perist. simpl. dentes 32 in 8 vel 16 connati plani, madore in conum depressum conniventes, siccitate subincurvi.

Sectio I. **Systylium** Hsch. — Operculum in columella exserta persistens; perist. truncatum breve.

Sectio II. **Cyrtodon** R. Br. — Operculum deciduum; perist. d. lanceolati acuti.

b. *Folia cuspidata.*

8. **D. cuspidatus** C. Müll. I. p. 142. — Folia late obovata, laxe reticulata, firmisscula, ad aristam elongatam saepius subdenticulata, theca in ped. perbrevis *firmiter*, in apophysin obconicam turgescens magnam thecam superantem erectam rubram incrassato, erecta, cylindracea, parva.

Hook. et Wils. c. ic. in Fl. Antart. I. p. 123. t. 57.

*Patria.* Insulae Auckland: J. D. Hooker.

A *D. plagiopode* notis cursive impressis certe distinguitur. *Tetraplodonti mnioidi* e thecae forma simillimus, calyptra autem campanulata basi laciniis inflexis praedita generice differt.

9. **D. purpurascens** C. Müll.; *D. cuspidato* simillimus, sed foliorum viridium nervus in arista elongata subrecurva evanescens, pedunculus longior, in collum angustum et thecam ovali-oblongam sensim incrassatus, calyptra *D. Magellanici*.



*Splachnum purpurascens* Hook. et Wils. Syn. I. p. 142. — Fl. Antarct. I. p. 123. t. 57.

**10. D. plagiopus** C. Müll.; dioicus; folia ad aristam elongatam saepius subdenticulata, late obovata, firmisscula, cellulis laxis reticulata; theca in ped. perbrevis *car-noso* rubente *superne in collum elongatum plus minus obliquum incrassato ovalis v. cylindracea*, parva, subclavata.

*Splachnum octoblepharon* var.  $\beta$ . Hook. et Wils. in schedis musc. Antarct. — Forma humilior densius cespitosa, foliis angustioribus, magis undulatis, pedunculo in collum longius intense rubrum obliquum magis incrassato, theca plus minus ovalis v. cylindrica. — *Spl. plagiopus* Mont. C. Müll. Syn. I. p. 143!

*Patria.* Insula Campbelli: J. D. Hooker.

Perist. nobis haud visum. Notis illustratis a *D. cuspidato* longe differt.

**11. D. Magellanicus** Hmp. (in litteris!); caulis dense cespitosus, fusco-tomentosus, elatus subsimplex *robustiusculus*; folia lutescentia firmisscula laxè imbricata, *siccitate subcrispula, late lanceolata acuminata*, carinata, *apicem versus cellulis magnis prominentibus serrata*, *nervo elongato tenuiusculo flavido ante apicem evanido* percursa, e cellulis elongatis inanibus magnis firmissculis laxissime reticulata; perich. longiora, latiora, laxius reticulata; thecae in ped. *saepius geminatis* breviusculis rubentibus erectae, *oblongo-ovatae, obconico-apophysatae*, convexo-operculatae; calyptra conica inflata, *glabra*, truncata, apiculo brevissimo terminata, basi laciniis pluribus inflexis; peristomium in Syn. I. p. 148. descriptum.

*Eremodon Magellanicus* Brid. I. p. 236. — C. Müll. Syn. I. p. 148. — *Splachnum Magellanicum* Schw. Suppl. I. I. p. 47. t. 14.

*Patria.* In freto Magellanico: Commerson; ad Cap. Horn: J. D. Hooker, cujus specimina examinavimus.

Characteribus laudatis a congeneribus facile differt.

Gen. X. **Splachnum** L. I. p. 143.

Calyptra conica parvula. Perist. simplicis dentes **16** lanceolati, per paria approximati, sicci-

tate reflexi thecae adpressi, madore erecti apice incurvi.

Sectio I. **Ampullaria.** Apophysis ampullacea.

4b. **Spl. Gunnii** Wils. (Lond. Journ. of bot. 1848. p. 26. t. 1.); *dioicum?* caulis rigidiusculus crassus densifolius breviusculus; folia *squarroso-imbricata*, e basi angusta spathulato-ovata breviter acuminata, apice grossiuscule dentata, nervo ante apicem abrupto; theca in ped. carnosulo brevi in collum breve incrassato erecta *conica, apophysii maxime dilatata subplicata subdepressa*; perist. dentes erecto-incurvi octoni. †.

*Patria.* Tasmannia, ad trunc. filicum arborescentium, Acheron River: Gunn 1845 legit.

Species memorabilis distinctissima.

Sectio II. **Umbracularia.** Apophysis umbraculiformis.

5. **Spl. rubrum** L. I. p. 146.

*Apodanthus aphyllus* Lapyt. in Journ. Bot. Desv. 1813. No. 5. p. 22. t. 33. f. 1. 6.

Trib. XI. **DISCELIACEAE.** I. p. 149.

Areolatio folii rhomboidali-prosenchymatica chlorophyllo carens fuscescens iavanis.

Gen. I. **Discelium** Brid. I. p. 149.

Calyptra longe anguste cucullata. Perist. simplicis dentes sedecim lanceolati, medio fissiles.

Trib. XII. **BUXBAUMIACEAE.** I. p. 150.

Areolatio folii hexagona vel polygona minutiuscula fusca echlorophyllosa.

Gen. I. **Buxbaumia** Hall. I. p. 150.

Calyptra conica. Perist. duplicis d. ext. inaequales moniliformi-articulati solitarii vel in membra-

nam solidam irregulariter incisam conflati; internum: membrana albida in conum tubulosum producta plicata.

**2. B. indusiata** Brid. I. p. 151.

*Patria.* In truncis putridis Pyren. occ., reg. media montis Pic de Ger; nec non in valle Jéret: Spruce; Pyren. centr. Vallée de Campan, in sylva Forêt de Paillest dicta: Philippe. In reg. montosa et subalpina, rarissima.

2. Folia dense areolata.

Trib. XIII. MNIOIDEAE. I. p. 152.

Areolatio folii basi parallelogramma, apicem versus rotundato-hexagona parenchymatica, chlorophyllosa vel saepius incrassata, rarissime papillosa.

Subtrib. I. MNIAEAE. I. p. 152.

Folia semper elamellosa, basi pro more evaginata; theca epiphragmate nullo; perist. bryoideum vel (in Georgiis) e dentibus quatuor pyramidatis cellulosis compositum.

Gen. I. **Cinclidium** Sw. I. p. 153.

Calyptra dimidiata. Perist. duplicis d. ext. lanceolati truncati, trabeculati, intus cristati; internum: membrana cupuliformis, foraminibus sedecim dentibus externis oppositis, apice aperta, 16-plicata.

Gen. II. **Mnium** Dill.

Calyptra dimidiata. Perist. duplicis d. ext. 16 lanceolato-subulati, trabeculati, linea longitudinali exarati; intus cristati; internum: membrana elata carinato-plicata, in dentes 16 lanceolatos producta, ciliis interpositis.

Sectio I. **Eumnium.** Theca terminalis laevis pyriformis claviformis ovalis plerumque pendula bryacea.

7. *Mn. rostratum* Schw. I. p. 158.

*Patria.* Costa Rica Americae centralis, reg. montosa, inter 5000—8000' alt., mensib. Febr. 1847: A. S. Oersted.

9. *Mn. medium* Br. et Sch. I. p. 160.

*Patria.* In saxosis umbrosis secus rivulos sylvae Bois de Gouerdère dictae prope Bagnères-de-Luchon Pyrenaeorum central., reg. infraalpina: Spruce.

12. *Mn. spinosum* Schw. I. p. 162.

*Patria.* Pyren. central., sub abietum umbra juxta pontem Pont d'Espagne dictum: Spruce in reg. subalpina legit. In Alpib. Algovicis Bavariae, Kreutzek, 7300' alt. 16. Jul. 1849 sterile: Sendtner.

13. *Mn. spinulosum* Br. et Sch. I. p. 162.

*Patria.* Cum priori, etiam in trunco carioso Vallis du Lys Pyrenaeorum: Spruce.

17. *Mn. lycopodioides* Schw. I. p. 164.

*Patria.* Pyren. centrales, Vallon de Courbettes: Philippe reg. infraalpina legit. Geiselgasbig pr. Monachium, 1650' alt.: Sendtner.

Sectio II. *Aulaconion* Schw. — Theca terminalis bryacea sulcata.

Sectio III. *Rhizogonium* Brid — Theca basilaris lateralis v. terminalis, laevis, cylindracea cernua, ovalis, obconica, hypnoidea.

## 1. Folia subbifaria.

24. *Mn. bifarium* C. Müll. I. p. 172. — Folia siccitate crispula subsecunda.

*Patria.* Insulae Auckland: J. D. Hooker speciem cespitibus latis humilibus legit.

26. *Mn. Novae Hollandiae* C. Müll. I. p. 173.

*Patria.* Insulae Auckland: J. D. Hooker cespites laxissimos schistostegoideos pulcherrimos legit.

## Dubiae species.

1. *Hypnum reticulatum* Hook. et Wils. I. p. 174.

Fl. Antarct. II. p. 417. t. 154. f. 5.

2. Folia imbricata.

a. Fructus distincte lateralis.

**27. Mn. subbasilare** C. Müll. I. p. 174. — Laxe cespitosum, humilius, haud tomentosum, lutescens; folia caulina laxè imbricata, e cellulis *elongato-hexagonis laxis chlorophyllosis mollibus ubique reticulata*, nervo laevi parum carinato flavido v. fuscescente evanido percursa; perich. subintegerrima, nervo tenui fusco ante apicem evanescente praedita, e cellulis elongatis laxissimis amoene fuscis inanibus reticulata, caviore; pedunculus longiusculus purpurascens.

*Patria.* Ad Cap. Horn in Eremitae insula: J. D. Hooker.

Ex areolatione folii descripta ab omnibus congeneribus facile distincta et pulcherrima species, *Mn. polycarpo* subsimilis. Folia floris masculi ad basin feminei positi perichaetialibus simillima, sed breviora.

**28 b. Mn. Paramattense** C. Müll.; *Mn. spiniformi* simillimum, sed caulis simplicissimus *multo humilior*, madore strictus, siccitate incurvus, *rigidissimus*, *crassus*, folia caulina fusca *dense imbricata*, *siccitate apicem dense comosum attenuatum incurvum sistentia*, *subsecunda haud crispata*, madore erecto-patentia, *strictissima*, *haud erecto-curvata*, *breviora latiora*; areolationis cellulae parietibus *distincte conspicuis rufescentibus*, *nec in membranam homogeneam conflatis*, *nec pallentibus instructae*.

*Patria.* Nova Hollandia, cum Hymenophyllaceis et *Dicrano Sieberiano* commixtum, in collibus „Paramatta-Hügel” nuncupatis. Hb. Kunzeanum.

Species sterilis quidem, sed tamen notis laudatis distinctissima et ex analogia *Mn. spiniformis* fructu basilari certe praedita.

**28 c. Mn. Hookeri** C. Müll.; cespites elati densiusculi, haud tomentosi; caulis elongatus subgracilis *nigrescens*, innovationibus brevibus v. longis gracilibus lutescentibus

irregulariter ramosus, *rigidissimus*; folia caulina *siccitate atque madore imbricata, nec crispata, nec patentissima, apice gemmaceo-imbricata, nec madore patentissima, e basi decurrente plus minus ventricosa breviter latiuscule lanceolata, superne oblique subrecurva, caviore, nunquam carinato-plana, margine e basi incrassato supra medium parum remote et minute duplicato-serrato, nervo cellulis incrassate rotundatis minoribus virescentibus nunquam pallidis concolori, vix canaliculato, dorso minute serrato.*

*Hypnum spiniforme* Hook. et Wils. in Muscis Antarcticis!

*Patria.* Auckland insulae: J. D. Hooker.

A *Mn. spiniformi* notis illustratis longissime recedit et *Mn. polycarpo* ex areolatione viridi multo affinius. Ab hocce differt foliis brevissime lanceolatis, minute serratis, imbricatis, dein nigrescentibus.

b. *Fructus terminalis.*

**32. *Mn. radiatum* Wils.** (Lond. Journ. of bot. 1848. p. 274. t. 10.); dioicum; caulis ultrauncialis gracilis erectus *laxe foliosus*, apice ramis brevibus simplicibus verticillatim dispositis strictis patentibus; folia caulina viridissima, valde intorta, humore incurvo-lanceolata, angusta brevia, *denticulata*, margine reflexa *submarginata*, nervo *valido excurrente dorso spinuloso*; perich. conformia; theca in ped. longiusculo terminali, inter ramos verticillatim dispositos oriundo, laevi pendula, parvula oblonga, operc. hemisphaerico-conico. †.

*Patria.* China, ad rupes umbrosas humidam vallis cujusdam insulae Pih-quan: T. Anderson 1845.

Notis cursive impressis a *Mn. microphylo* differt; praeterea *Mn. Menziesii* habitum in parvulo refert. Flos masc. stellatus, fol. latioribus remotioribus.

Gen. III. **Hyménodon** Hook. et Wils. I. p. 178.

Calyptra dimidiata. Perist. simplex internum. Dentes sedecim in membrana carinato-plicata lanceolati.

4. **H. ovatus** C. Müll.

*Brachymenium?* *ovatum* Hook. et Wils. Synops. I. p. 180. —  
Fl. Antarct. II. p. 412. t. 153. f. 4.

*Patria.* Insulae Falklandi, ad rupes.

Gen. IV. **Georgia** Ehrh. I. p. 180.

Calyptra mitraeformis plicata. Perist. simplicis  
dentes quatuor pyramidati.

Sectio I. **Tetrodontium** Schw. — Plantae acaules gre-  
gariae.

2. **G. Browniana** C. Müll. I. p. 181.

*Patria.* In Pyren. central. locis occultis ad rupes  
arenaceas, etc. praeprimis ferro oxydatas, rara et semper  
*Campylostelio saxicola* consociata, Labassère, Vallée de  
Castelloubon: Spruce.

Sectio II. **Tetracemis.** Plantae elatae cespitosae.

Gen. V. **Leptotheca** Schw. I. p. 183.

Calyptra dimidiata. Perist. duplicis d. ext. 16  
lanceolato-lineares erecti, thecae parieti interiori ad-  
nati; internum: membrana tenera in cilia totidem li-  
nearia fissa, ciliis rudimentariis interjectis.

2. **L. speciosa** Hook. et Wils. I. p. 184.

*Bryum speciosum* Mitten in Lond. Journ. of bot. 1851. p. 56  
muscum proprium putamus!

Gen. VI. **Leptostomum** R. Br. I. p. 184.

Calyptra dimidiata. Peristom. simplex internum,  
e membrana sedecis plicata truncata constitutum.

Gen. VII. **Timmia** Hdw. I. p. 188.

Calyptra dimidiata. Perist. duplicis d. ext. *Mnii*;  
internum: membrana hyalina in cilia numerosa filifor-  
mia nodosa appendiculata producta.

1. **T. Megapolitana** Hdw. I. p. 189.

*Patria.* Pyrenaei centrales, Pic du Midi de Bigorre: Philippe; Pyr. orient., Mont. Canigou, M. Cady et Cambrédazes: Arnott, ex Spruce!

Subtrib. II. POLYTRICHACEAE. I. p. 191.

Folia pro more lamellosa, basi vaginata; *theca epiphragmate clausa*; perist. dentes ligulato-lanceolati, filis (cellularum elongatarum parietibus) parallelis pluribus plerumque rufis exarati.

Gen. VIII. **Catharinea** Ehrh. I. p. 191.

Calyptra dimidiata glabra vel parum hirta. Perist. simplicis dentes 32 ligulato-lanceolati hyalini, basi connati, lineis rufis parallelis pluribus exarati.

Sectio I. **Atrichum** P. B. — Folia perfecte mniioidea, basi haud vaginata; theca cylindrica arcuata.

2b. **C. polycarpa** Schimp. (in litteris sub nom. *Atrichi!*); *monoica*; *C. Callibryo* proxima sed folia molliora, siccitate valde crispata, minus acute acuminata, margine crassiore, dentibus semper geminatis, dorso secus undas et costam spinulosa, cellulis minoribus; comalia interna basi latiora, minus distincte marginata et simpliciter dentata; thecae complures in floris masculi discoidei circuitu positae (nec in proliferatione propria ut in *C. Callibryo*), erectae cylindricae, operculis longe tenuiter rostratis, calyptra et perist. *C. Callibryi*.

*C. (Atrichum) Callibryon* var. *δ. brevilamellosum* C. Müll. Synops. I. p. 193.

*Patria.* Mexico, Huatusco: Liebmann. Prope Xalapam primi leg. Deppe et Schiede dein Leiboldt in locis non designatis regni Mexicani.

2c. **C. Oerstediana** C. Müll.; *dioica!* cespitosa subulata subsimplicissima, basi tomento albido praedita; folia caulina lingulato-lanceolata, sicca valde crispata, madore erecto-patula, *brunnescentia*, *difficile emollientia*, dorso dentibus *fuscis* sparsis *remotis* obtecta, limbo angusto *fusco*, dentibus *semper duplicatis fuscis* serrato, praedita, gros-



sus arcolata, nervo crasso fusco excurrente, dorso superne dentato, intus *vix lamelloso*; perich. longa, basi laxe elongate reticulata; omnia madore undulata; theca in ped. elongato *brunneo-atro* laevi parum inclinata anguste elongate cylindrica subarcuata, *ante orificium dilatatum angustata*, operc. conico oblique rostrato; perist. breve.

*Patria.* America centralis, Costa Rica, reg. montosa, inter 5000 — 8000 ped. elev., mensib. Febr. et Apr. 1847 legit A. S. Oersted.

Fol. perigonialia floris masculi discoidei terminalis e basi latissime ovata pallida laxe reticulatâ in acumen breve incurvum opacum producta, limbo tenuissimo superne irregulariter simpliciter vel duplicate serrato praedita, dorso laevia; intima brevia obcordata; antheridia numerosissima, magna clavata, paraphysibus pallidis tubulosis permultis cincta. — A *C. Callibryo* characteribus typographice designatis longe differt.

Sectio II. **Psilópilum** Brid. — Folia polytrichoidea, basi haud vaginata, amplexicaulia; theca asymmetrica, compressiuscula.

6. **C. compressa** C. Müll. I. p. 195. — *Dioica!*

Fl. Antarct. II. p. 410. t. 153. f. 7.

Sectio III. **Oligotrichum** Decand. — Folia praecedentis sectionis; theca cylindrica urnigera v. ovalis, haud incurva, erectiuscula.

8. **C. Hercynica** Ehrh. I. p. 196.

*Patria.* Pyrenaei centrales, in regione inferalpina montis Crabioules: Spruce; in alpinis juxta lacum Lehou et supra pagum Gazos: Philippe.

Sectio IV. **Dendroligótrichum** C. Müll. — Folia basi longe vaginata, cirrhata; theca praecedentis; caulis stipitatus, apice dendroideo-ramosus.

15. **C. dendroides** Hmp. I. p. 199.

Cum ic. optima! *Montagne* in Gay. Fl. Chilensi, a *Riocreux* delineata.

*Patria.* Chile, Valdivia: Philippi.

16. *C. squamosa* C. Müll. I. p. 200.

*Polytrich. squamosum* Hook. et Wils. in Fl. Antaret. II. p. 411, t. 153. f. 8.

Sectio V. **Polytrichadelphus** C. Müll. — Folia praecedentis, juniperoidea, haud cirrhata, sed densissime imbricata; theca praecedentis.

17. *C. ciliata* C. Müll. I. p. 201.

*Patria.* Novo-Granada, prov. Pamplona, Paramo de la Cruces, alt. 10,000 pedum, terrestris, m. Decbr. 1846: Funck et Schlim in Linden. Coll. No. 1345.

18. *C. Magellanica* Brid. I. p. 201.

*Patria.* Brasilia, Sta. Catharina, ad rupes umbrosas humidias prope Conciscão, mens. April. 1847: Pabst.

An planta Brasiliensis ab Antarctica diversa sit, examinandum est.

Gen. IX. **Polytrichum** Dill. I. p. 202.

Calyptra dimidiata, tomento capillari densissimo campanulata. Peristom. *Catharineae*.

Sectio I. **Aloidella** C. Müll. — Plantae humillimae; folia pauca aloidea, siccitate plus minus involuta, appressa; theca laevis aequalis.

5b. **P. Gardneri** C. Müll.; *dioicum*; *P. Pensylvanico* simillimum, sed folia e basi vaginatâ angustiore nunquam crenatâ magis sensim acuminata vel melius lanceolata, apice solo parum dentata, nervo fusco apicis dorso parum dentato canaliculato vix lamellato excurrente percurta; perich. nervo excedente elamellosa in aristam crassam integram producta; omnia ubique fere e cellulis laxissimis fuscis, nunquam chlorophyllosis, reticulata; theca grossius papillosa *P. Pensylvanici*.

*P. Pensylvanicum* Hook. et Wils. in Musc. Brasil. Gardner. No. 15. — C. Müller: Synops. I. p. 205!

*Patria.* Brasilia, Tijuca, m. Novbr. 1836: G. Gardner.

*P. Pensylvanicum* foliis basi latioribus densius reticulatis virentibus, longius acuminatis, subreflexis, grosse

serratis, obscure chlorophyllose densissime lamellosis, cuspidatis haud aristatis et theca minus papillosa longe differt.

Sectio II. **Cephalótrichum** Br. et Sch. — Plantae elatiores simplices, basi nudae, apice rosulato-foliosae; folia juniperoidea stricta planiuscula; theca aequalis laevis.

9b. **P. comosum** Schimp. (in litteris sub Pogonato!); *P. subulato* proximum; caulis simplex, 1 — 1½" altus; folia inferiora et media adpressa, superiora comantia et patentia recurva, siccitate laxe incumbentia, coriacea solida nec tenuia e basi semivaginantia lingulata haud acuta, plana, dorso convexiusculo, nervo semitereti quartam paginae partem occupante, lamellis margine sulcatis et biserialiter obtuse dentatis, margine pallide ferrugineo, ad basin vaginantem usque dentato; perich. vaginula vix longiora, lanceolata, vaginantia, solo apice margine dentata et in nervo lamellata; theca in ped. subunciali erecta, cylindracea, fusca, operc. depresso-conico acuminato, breviori, calyptra dense ferrugineo-pilosa. †.

*Patria.* Mexico, Pico de Orizaba: Liebmann.

A *P. subulato* ex animadv. auctoris primo intuitu notis cursive impressis differt.

#### Incertae sedis.

**P. Jamesoni** Tayl. (Lond. Journ. of bot. 1848. p. 188.); dioicum; caulis laxo cespitosus simplex erectus brevis brunnescens inferne nudus, parte foliosa superiore 4-linearis; folia siccitate et humore plana, haud torta, erecto-patentia, ex lata amplexante basi linearis acuminata denticulata, nervo dilatato; theca in ped. biunciali erecta linearis angusta, basi obconice apophysata quadrilata, parum curvata; operc. hemisphaerico, rostro elongato conico compresso; perist. d. erecti breves saepius bifidi. †.

*P. polysetum* Hook. et Arn. ex Mitten, Lond. Journ. of bot. 1851. p. 50.

*Patria.* Monte Pichincha Andium Quitensium: W. Jameson, Dec. 1846.

Thecam c. *Cath. angustata* auctor comparavit. Mente Mitten *P. oligodonti*, *perichaetiali* et *Simensi* proximum.

Sectio III. **Pogonatum** Brid. — Plantae elatae ramosae vel subsimplices, ubique imbricatim foliosae; folia juniperoidea coriacea; theca aequalis laevis.

Theca laevi, haud angulata, foliisque plus minus strictis juniperoideis sectio certe distans.

a. *Humiliora.*

11 b. **P. capillare** Rich. (in Michaux. Fl. Am. II. p. 294.); *dioicum*; *P. urnigero* simile; *statura semper multo gracilior, humilior, tenerior*; folia caulina *irregulariter laxissime imbricata, siccitate subsecundo-curvula, madore erecta*, e basi breviter vaginante *ubique laxius et aequaliter reticulata, haud albide marginatâ erecta, haud reflexa*, lanceolata acuta, grosse remote dentata, nervo supra basin multilamelloso, apicem folii fere totum occupante, dorso parce serrato; perich. caulinis longius vaginantia, *erecta*, brevius subreflexe acuminata; theca in ped. graciliori breviori erecta *P. urnigeri*, papillosa; perist. d. *elongati valde hyalini*, lineis nonnullis parallelis *distinctis* obscurioribus et medio stria longitudinali *angusta* exarati.

Brid. II. p. 127. — Sulliv. Musc. Allegh. Exs. No. 115! — *P. urnigerum* ex parte C. Müll. Syn. I. p. 209; spec. Lapponica, ad *P. urnigerum* pertinente exclusa! — *P. intertextum* Brid. II. p. 742!

*Patria.* America septentrionalis, ubi in Carolina primus legit Michaux. E republica New-England, in White Mountains copiosissime et pulcherrime ab Oakes, Tuckermann et Sullivant lectum benevole misit Sullivant. In insula Terre Neuve: La Pylaie.

*P. urnigerum* statura robustiori, foliis dense imbricatis, madore patentibus subreflexis aliter areolatis et peristomii dentibus multo brevioribus omnino fere rufis longe et certe differt. *P. dentatum* ex ic. Schwägricheniana

foliis perich. longe acuminatis, incrassate areolatis theca-  
que ovata distare videtur.

14b. **P. Liebmannianum** Schimp. (in litteris sub nom. *Pogonati!*); caulis simplex, 1<sup>1</sup>/<sub>2</sub>" altus, dense foliosus; folia rigida, infima et media patentia, superiora erecta, siccitate imbricata, e basi semivaginante late lineali-lanceolata, subplana, dorso convexo laevi, margine pellucido apice serrato, superne tota latitudine lamellata, nervo excurrente; perich. latiora longiora subconcava; theca in ped. crassiusculo, siccitate superne dextrorsum torto, obliqua vel cernua, ovali-oblonga, operc. convexo-conico acuminato; calyptra pilis densis pallide stramineis totum thecam obtegens.

*Patria.* Mexico, in monte Orizaba: Liebmann.

Sectio IV. **Catharinella** C. Müll. — Plantae elatiores simplices vel ramosae; folia pro more crispula, aloidea vel *Catharinearum* illis similia; theca aequalis, leviter 6—8-angulata.

*Oligotricha* generis *Catharineae* referentes species, e theca aequali 6—8 angulata facile discernibiles.

a. *Theca* 6-angularis.

α. Folia latissima laxissime cirrhata.

18. **P. convolutum** L. I. p. 213.

19. **P. semipellucidum** Hmp. I. p. 214.

20. **P. contortum** Menz. I. p. 215.

β. Folia angustiora cirrhato-imbricata.

21. **P. tortile** Sw. I. p. 215.

*Patria.* America centralis, Costa Rica, Aquacate, alt. 1500', m. Novbr. 1846: A. S. Oersted.

21b. **P. campylocarpum** C. Müll. I. p. 209 sub *Pogonato!*

22. **P. subtortile** C. Müll. I. p. 216.

22b. **P. Neesii** C. Müll.; *dioicum*; caulis humilis simplex; folia siccitate appressa, brevia, comalia apice subsecunda, nunquam cirrhata, madore erecto-patentia densiuscule imbricata, e basi vaginante pellucida lata angu-

*stiore densius reticulata* latiusculo-lanceolata, *madefacta apice stricta non incurva*, superne dense serrulata, nervo multilamelloso, apicem folii fere totum occupante, dorso parce dentato, perich. longiora; theca in ped. longiusculo laevi rubro erecta vel subinclinata cylindrico-ovalis, sub ore dilatato coarctata, papillosa, sexies callosa, operc. conico *brevissime oblique acuminato*; perist. dentes breviusculi hyalini, medio lato-rufi; calyptra longe campanulata ochracea.

*Patria.* Java: Blume. Hb. Al. Braun.

A *P. subtortile* caract. laudatis facile distinguitur.

22c. **P. Belangeri** C. Müll. I. p. 222. sub Eupolytricho! — Theca sexies! angulata.

23. **P. longisetum** Hook. I. p. 217. sub Eupolytricho! — Theca biangulata quidem a Schwägrichen descripta, sed ex analogia et icon. certe sexies angulata!

b. *Theca 8-angularis.*

23b. **P. octangulare** C. Müll.; dioicum; caulis cespitosus subhumilis simplicissimus strictiusculus; folia siccitate erecto-patula, plana, madore laxissime imbricata patentissima vel reflexa, brevia, e basi brevi latiuscula pallida breviter lanceolata, planissima, supra basin lamellis brevibus omnino oblecta, margine superne breviter sed robuste dentata; perich. similia; theca in ped. mediocri purpureo laevi horizontalis ampla oblonga, octies leviter callosa, brunnescens, basi aequali grosse verrucosa; perist. d. breviusculi lati 32 pallidi obtusi, apice subincurvi, medio rubiginoso-striati.

*Patria.* America centralis, Aquacate in Costa Rica, alt. 1500': A. S. Oersted m. Novbr. 1847 deoperculatum legit.

Sectio V. **Eupolytrichum** C. Müll. — Plantae robustae simplices vel ramosae; folia juniperoidea plus minus stricta et imbricata; theca cubica 4—6 angulata, basi apophysii discoidea inaequalis.

Non satis notum.

1. **P. Swartzii** Hartm. (Sk. Fl. Ed. V. p. 361.); folia subulata tenuiter serrulata, siccitate cauli appressa; theca 4-angularis subcubica, appendiculo sat evidenti. †.

*P. alpestre* Sw. et Hartm. Sk. Fl. Ed. IV., quod autem nomen varietatem *Polytr. juniperini* rectius significat.

*Patria.* Suecia, in terra humida Holmiae sec. specimen, quod dedit Swartz. Ad Forsbacka Gestriciae, in insulis. Norvegia, ad Kongsberg: Holmgren.

A *P. communi* distinguitur theca brevi, latitudine longitudinem aequante, foliis minoribus, angustioribus minusque arcuatis, statu sicco cauli arcte appressis, appendice denique non ita a theca sejuncta.

Gen. X. **Dawsonia** R. Br. I. p. 225.

Calyptra *Polytrichi*. Perist. simplex, ciliis numerosis capillaribus rectis in cylindrum convolutis penicillatum.

Gen. XI. **Lyellia** R. Br. I. p. 227.

Calyptra dimidiata nuda *Catharineae*. Peristomium nullum.

Melius forsitan sectio propria generis *Catharineae*.

Trib. XIV. BRYACEAE. I. p. 228.

Areolatio folii prosenchymatica, pro more rhomboidalis, chlorophyllosa.

Gen. I. **Melichhoferia** Hsch. I. p. 229.

Calyptra dimidiata. Perist. nullum vel simplex internum: dentes 16 aequidistantes in membrana plus minus exserta positi pallidi pro more filiformes. — Theca lateralis.

1. Theca eperistomata.

2b. **M. nana** C. Müll.; dioica? caulis cespitosus erectus subbiuncialis subsimplex, basi nudus; folia erecta arcte

imbricata, *ovata acuminata* subintegerrima, nervo evanescente; perichaetia brevissima basilaria; theca in ped. cespitem vix superante *erecta, dein horizontalis*, pyriformis, *hinc gibba*, operc. *minuto convexo*; peristomii membrana brevissima scariosa, *annulum vix superans, irregularis.* †.

*Schizhymenium nanum* Tayl. Lond. Journ. of bot. 1848. p. 191.

*Patria.* Monte Pichincha vulcanico Andium Quitensium: W. Jameson, Dec. 1846.

Ex obs. auctoris *M. Eckloni* affinis. Notis cursive impressis a *M. Schiedeana* et *hymenostoma* sat distincta.

Gen. II. **Leptochlaena** Mont. I. p. 236.

Calyptra et perist. duplicis internum *Mielichhoferiae*, externum bryoideum. — Theca lateralis.

Cum *Orthodontio*, sectionem propriam constituens, inter *Mielichhoferias* sedem melius tenet.

Gen. III. **Orthodontium** Schw. I. p. 237.

Calyptra et peristomium duplex *Leptochlaenae*. — Theca terminalis.

Cum *Leptochlaena* ad *Mielichhoferiam* rectius accedit, ubi sectio *Orthodontium* theca terminali distinguitur.

1. Folia valde patula.

3. **O. infraetum** Dz. et Molkb., cui diagnosis est *O. sulcati* in Synopsi I. p. 239.

*Patria.* Java, monte Gédé, ubi in cacumine montis Sedaratoe legit Korthals.

3b. **O. sulcatum** Hook. et Wils. (in Hook. Ic. Pl. Rar. t. 739. B.); a praecedente differt: statura pusilla bilineari, foliis distinctius recurvis excurrentinervibus integerrimis, theca inclinata elliptico-oblonga, perist. dentibus ext. oblongis, internis externos vix superantibus lanceolatis. †.

*Patria.* Nova Hollandia, ad Fl. Swan River: J. Drummond.



4. **O. Australe** Hook. et Wils. I. p. 239.

Fl. Antarct. II. p. 412. t. 153. f. 5.

Gen. IV. **Bryum** Dill. I. p. 241.

Calyptra dimidiata. Perist. duplex; externi dentes 16 lanceolati, transversim trabeculati, intus cristato-lamellosi; interni membrana sedecies carinata, in dentes 16 carinatos rarius obsoletos et cilia interposita perfecta vel rudimentaria obsoleta producta. Theca terminalis.

*Clavis analytica e peristomio ducta.*B. **Brachymenium** Hook. I. p. 242.

1. Folia julaceo-imbricata.

6b. **Br. smaragdinum** C. Müll. 114 b.

2. Folia plus minus patula.

a. *Folia marginata.*9b. **Br. Magellanicum** C. Müll. 131 b.9c. - **patulum** C. Müll. 131 c.10b. - **crinitum** Mitten. 132 b.12b. - **Jamesoni** C. Müll. 134 b.12c. - **cristatum** C. Müll. 134 c.12d. - **Regnellii** C. Müll. 134 d.b. *Folia immarginata.* $\beta$ . *Integra.*22b. **Br. capillifolium** C. Müll. 129 b.22c. - **imbricatifolium** C. Müll. 129 c.D. **Pohlia** Hdw. I. p. 242.

2. Inflorescentia monoica.

a. *Folia lata.*32b. **Br. Algovicum** Sendtn. 44 b.

3. Inflorescentia dioica.

b. *Theca regularis.* $\beta$ . *Folia excurrentinervia.*52b. **Br. imbricatulum** C. Müll. 100 b.

52c. **Br. Wilsoni** Mitten. 144b.

**E. Webera** Hdw. I. p. 243.

2. Inflorescentia monoica.

b. *Antheridia in axillis foliorum libera.*

63b. **Br. Oerstedianum** C. Müll. 154b.

66b. - **spectabile** C. Müll. 157b.

3. Inflorescentia dioica.

a. *Folia nervo excurrente vel evanido.*

73b. **Br. Lescurianum** Sulliv. 148b.

76b. - **tenellum** Schimp. 76b.

76c. - **limbatum** C. Müll. 85b.

**F. Bryum** Dill. I. p. 245.

3. Inflorescentia dioica.

a. *Folia julaceo-imbricata.*

$\alpha$ . Mollia.

106b. **Br. plagiopodium** Schimp. 76d.

106c. - **Liebmannianum** C. Müll. 76e.

c. *Folia patula in caulis longitud. sparsa.*

$\alpha$ . *Folia confertius imbricata.*

1. *Folia stricta.*

128b. **Br. hemisphaericarpum** C. Müll. 108b.

2. *Folia plus minus torta.*

$\alpha$ . *Densiuscule imbricata.*

130b. **Br. Wagneri** C. Müll. 59b.

$\beta$ . *Laxe imbricata.*

138b. **Br. Zollingeri** Dub. 17b. cf. Syn. I. p. 247. sub No. 164!

*Brya incertae sedis.*

Ad f. 3. a.  $\alpha$ .?

146b. **Br. concinnatum** Spruce 99b.

*Cujus sectionis?*

166. **Br. Antarcticum** Hook. et Wils. 76c.

167. - **tophaceum** Mont. 88b.

*Species secundum affinit. natur. dispositae.*

Sectio I. **Platyphyllum** C. Müll. I. p. 247. — Plantae laxifoliae mniioideae elatae robustae; folia latissima spathulata, nervo basi crassissimo praedita, margine basi tantum revoluta; theca cylindrica pro more mniioidea horizontalis v. pendula.

Sectio II. **Eubryum** C. Müll. I. p. 252. — Plantae dense et late cespitosae plerumque tomentosae plus minus elatae saepius mniioideae; folia late ovalia, basi vel omnino margine distincte revoluta; theca pyriformis inclinata, horizontalis v. pendula.

1. Folia apice caulis densiora in rosulam congesta lata.

17b. **Br. Zollingeri** Dub. (in Moritzi. Syst. Verz. p. 133.); *dioicum*; *Br. Neelgheriensi* simillimum, sed *vix purpurascens*, folia e basi *angustissima late ovata, haud late oblonga*, acumine brevi reflexiusculo torto terminata, nervo *basi tantum purpurascente, superne flavo-virente*, late *flavide* marginata et *flavide* argute serrata, *chlorophyllosa*; perich. intima multo breviora anguste lanceolata cuspidata flavida serrata immarginata; theca in ped. elongato rubente horizontalis, *pyriformis*, operc. conico brevi.

C. Müll. Syn. I. p. 340 sub Bryis incertae sedis.

*Patria.* Java: Zollinger. No. 1944.

Fructum maturum non vidimus.

3. Folia dense imbricata. Plantae humiles, innovationibus tantum gracilescentes.

d. *Peristomium Pohliae.*

α. Inflorescentia hermaphrodita.

42. **Br. purpurascens** Br. et Sch. I. p. 270.

*Patria.* Insula Melville: Sabine.

43. **Br. Archangelicum** Br. et Sch. I. p. 271. — Hermaphroditum vel monoicum!

β. Inflorescentia monoica.

44b. **Br. Algovicum** Sendtn. (in litteris!); *monoicum*; habitus *Br. cernui*, tomentosum; folia caulina late ovata parum acuminata, nervo crasso viridi basi purpurascente in aristam longiusculam denticulatam exeunte, parum ca-

rinato-concava, margine immarginato, e basi ad apicem usque valde revoluta, e cellulis mediocribus parum granulosis chlorophyllosis, in perich. conformibus inanibus areolata; theca in ped. longiusculo crasso purpureo pendula, madore oblonga, sicca e collo brevi clavato-pyriformis, microstoma, operculo minuto mammillari, dentibus ext. angustis luteis v. rufescentibus, int. aequalibus angustissimis valde hiantibus, ciliis rudimentariis.

*Patria.* In alpibus Bavaricis Algovicis, Linkerskopf in cacumine montis, alt. 7152': Sendtner 1848.

A *Br. cernuo* inflorescentia monoica et peristomio *Pohliae*, a *Br. Archangelico*, ut videtur simillimo, infloresc. monoica et foliis constanter et ubique valde revolutis distat. — Flos masc. in innovatione comosa terminalis gemmaceus, fol. perig. brevioribus longissime aristatis, margine vix vel haud revolutis, anth. turgidis, paraph. aureis mixtis.

f. *Peristomium Bryi.*

β. Inflorescentia monoica.

55. **Br. cirrhatum** Hoppe et Hsch. I. p. 278.

*Patria.* Pyr. centrales, in humidis graminosis, Esquierry et Port de Bénasque: Spruce.

57. **Br. pallescens** Schw. I. p. 279. — Interdum hermaphroditum!

γ. Inflorescentia dioica.

59b. **Br. Wagneri** C. Müll.; brevicaule, innovationibus pluribus rectiusculis flaccidis tenuibus inferne nudis pallide virescentibus vix torquescentibus valde ramosum; fol. caulis fertilis elongate lanceolato-acuminata flaccida tenera laxae areolata integerrima immarginata, margine haud revoluta, nervo purpurascente excedente longe flexuose capillaria, ramulina viridinervia tenera brevius cuspidata magis ovata, areolatione utriculo primordiali tenuissimo obsoleto praedita; theca in ped. elongato purpurascente longicolla elongate cylindrico-oblonga, ore constricta, pallida, dein brunnescens, pendula, operc. conico acuto pallidius colorato, dentibus angustis.

*Patria.* Columbia, Cumbre de Caracas, 3000' alt., ubi 1848 legit Wagner, hortulanus Halensis.

A *Br. capillari* simillimo notis illustratis facile distinguitur.

**60. *Br. platyloma* Schw. I. p. 282.**

*Br. Mülleri* Spruce in Musc. Pyren. No. 138 et in Ann. and Mag. of Nat. Hist. 1849. Musc. Pyr. No. 160. Est *Br. Donnianum* Grev. in Synops. I. p. 167! E speciminibus Spruceanis a *Br. platylomate* haud differt, quum marginis folii fabrica in hacce specie variet. — *Br. insulare* De Not. Spic. p. 7. et Syllab. p. 128 ex animadv. Cl. Montagne in litteris! huc, nec ad *Br. capillare*, ut Synops. nostra I. p. 281 dubie indicat.

*Patria.* Pyrenaei centrales, reg. montosa, in rupibus humidiusculis prope pagum Pierrefitte: Spruce. Pyren. occid., in terra arenosa Agri Syrtici prope St. Sever sterile: Spruce. Anglia in Sussex: Mitten et Jenner fertile legerunt.

**61. *Br. obconicum* Hsch. I. p. 282.**

*Patria.* Pyren. occid. et centrales, ad muros haud infrequens, Jurancon, Bagès, Arreau etc.: Spruce, Bagnères: Philippe.

Sectio III. **Amblyophyllum** C. Müll. I. p. 286. — Plantae gregariae vel dense cespitosae; folia laxè imbricata, orbicularia, usque ad apicem quin imo fere patelliformi-concava, e cellulis quadrato-rhombeis laxis reticulata, basi raro margine revoluta, superne plerumque involuta, abruptinervia; theca pendula plus minus pyri-formis.

**68. *Br. latifolium* Br. et Sch. I. p. 286.**

*Weisia fornicata* Brid. I. p. 365, in Megapolit. Ducatu e spec. auctoris huc revocanda!

*Patria.* In Megapolitani Ducatus fluviorum ripis: Blandow. In Suecia: Ångström in litteris!

**69. *Br. cyclophyllum* Br. et Sch. I. p. 287.**

*Patria.* In Suecia: Ångström in litteris!

Sectio IV. **Areodictyon** C. Müll. I. p. 288. — Plantae cespitosae humiles; Folia subdense imbricata ovalia valde concava, margine e cellulis pellucidis teneris, plerumque basi purpurascenti-

bus, laxis rhombeis reticulata, nervo basi crasso, evanescente purpurascens praedita; theca plus minus pyriformis et inclinata.

a. *Theca irregularis.*

71. **Br. Zierii** Dicks. I. p. 288.

*Patria.* Pyrenaei centrales, Lac de Séculéjo, Labassère etc.: Spruce. Pyr. or., Mont Louis: Arnott.

b. *Theca regularis.*

76b. **Br. tenellum** Schimp. (in litteris!); *dioicum*; humile; ramulis subjulaceis; folia dense imbricata, ovata concava integerrima,] excurrentinervia, laxe reticulata; perich. majora, interna lanceolata, nervo sub apice evanido; theca in ped. semiunciali cernua subnutans, breviter pyriformis, brevicolla, fusca, late annulata, operc. brevi conico; perist. Weberae. †.

*Patria.* Mexico, Pico de Orizaba inter Philonotulas: Liebmann.

Proxime ad *Br. cellulare* et *Ludwigii*, cujus thecam et peristom. habet, accedit.

Sectionis incertae.

76c. **Br. Antarcticum** Hook. et Wils. (Fl. Antarct. II. p. 414. t. 153. f. 6.); *monoicum*; caulis bilinearis rubellus, inferne radiculosus, ramosus cespitosus; folia caulina conferta imbricata, erecto-patentia, late ovata breviter acuminata, concava, subdenticulata, rufescentia, apice diaphana, nervo latiusculo rubello sub apice evanido, margine plano, cellulis subquadratis; perich. majora longius acuminata; ped. brevis ruber. †.

*Patria.* Insula Cockburn Island nuncupata Antarctica, lat. 64° S., long. 57° W.

Fructificatio tantum juvenilis observata.

76d. **Br. plagiopodium** Schimp. (in litteris!); habitu *Br. argentei*; ramulis julaceis numerosis; folia imbricata pallide viridia, nitida, late ovata, anguste acuminata, concava, integra vel apice denticulata, nervo tenui excurrente, cellulis rhombeis satis laxis; perich. ovato-lanceolata, sensim acuminata, nervo angusto excurrente vel sub

apice evanido; theca in ped. flexuoso superne arcuato pendula, clavata, longicolla; perist. extern. *Br. argentei*, interno pallido perforato, ciliis singulis. †.

*Patria.* Mexico, M. Orizaba: Liebmann.

76 e. **Br. Liebmannianum** C. Müll.; *dioicum*, humile; ramulis teretibus vel clavatis fragilibus; folia imbricata, apice recurvo, cordato-ovata, mucronata, concava, integra, nervo solido viridi, cellulis sat magnis chlorophyllosis; perich. late lanceolata; theca in ped. elongato tenui obliqua vel horizontalis, clavata, rufo-brunnea, solida, brevicolla, operc. brevi depresso conico, annulo lato revolubili; perist. ext. d. anguste lineali-lanceolati, subulati, pallide lutescentes, interni: membrana lata hyalina, processibus pertusis, ciliis singulis apice appendiculatis. †.

*Br. brevicaule* Schimp. in litteris! sed nomen jam abusum.

*Patria.* Mexico, M. Orizaba: Liebmann.

Flos masc. *Br. argentei*, cui affinibusque auctor adnumeravit.

Sectio V. **Apalodictyon** C. Müll. l. p. 291. — Plantae humiles dense imbricatae graciles. Folia stricta ovato-lanceolata, margine vix vel paulisper revoluta, carinato-concava, pellucide minute et tenelle interdum laxiuscule reticulata, nervo crasso, plerumque flavo, evanido, excurrente vel in aristam crassam flavam producta; theca pendula dolioliformis vel plus minus oblonga vel pyriformis.

1. Nervo evanido vel excurrente.

b. *Peristomium Weberae*.

85 b. **Br. limbatum** C. Müll.; *dioicum*; gregarie cespitosum remotifolium sordide viride subsimplex gracillimum pusillum; folia caulina remota, siccitate crispula, minuta, e basi brevissima angustiore oblongo-ovalia, obtuse acutata, planiuscula, margine parum revoluta, e cellulis laxiusculis longioribus pachydermibus indistincte late limbato, superne crenato, nervo rufescente crassiusculo excurrente, stricto carinato, cellulis laxiusculis parvulis pachydermibus, rufescenti-viridibus; perich. angustissime lingulata obtuse acuta; theca in ped. tenuissimo elongato atro horizontalis v. nutans, minutissima, e collo longius-

*culo angustissimo* oblonga, annulata, operc. conico brevissimo; perist. parvi d. ext. breviusculi subangusti lutescentes, intus valde cristati, int. aequilongi breves hiantes laeviusculi angusti, ciliis binis cohaerentibus subrugulosis illos subaequantibus.

*Patria.* America centralis, Costa Rica, in reg. montosa inter 5000—8000 ped. elevationis, inter *Bartram. sphaericarpam* leg. A. S. Oersted mens. Febr. 1848.

*Br. turbinatum* in minima statura quasi referens, notis cursive impressis ab *Apalodictyis* distinctum.

d. *Peristomium Bryi.*

88 b. **Br. tophaceum** Dur. et Mont. (Ann. d. sc. nat. XII. 1849. p. 319.); *dioicum, laxe cespitosum et laxissime cohaerens*, sordide viride et lutescens, subrobustum; caulis crassiusculus rufus, innovationibus gracilioribus parce ramosus, *inferne laxe foliosus, apice subrosulate gemmaceus*; folia caulina siccitate conferta, madore erecto-patentia, *latiuscule ovata breviter obtuse acuminata*, aequaliter concava, *immarginata*, margine erecta integra, nervo crassiusculo rubenti-flavido in acumen excurrente percursa, e cellulis longiuscule rhomboidalibus, basi quadratis, amoene hyalinis vel parce chlorophyllosis areolata.

*Patria.* Algeria, in rivulis prope Tiaret: Durieu.

A *Br. marginato* affini notis designatis longe refugit. Sterile tantum visum. Flos femineus terminalis, foliis caulinis similibus at tenerioribus, paraphysibus validis numerosissimis *ramosis*.

90. **Br. Tozeri** Grev. (Scot. Crypt. Fl. t. 285.). I. p. 298.

*Patria.* Pyr. occ., in regione plana et montosa inferiore, in argillaceo-arenosis circa Pau et St. Sever, in rupibus ophiticis Sti. Pandelon prope Aquas Tarbellicas: Spruce auctumno et vere fertile legit.

93. **Br. Crügeri** Hmp. I. p. 300.

*Patria.* Columbia, Cumbre de Caracas, alt. 3000 pedum: Wagner 1848.



*Peristomium ignotum.*

99b. **Br. concinnatum** Spruce (in Musc. Pyren. No. 121.); *dioicum*; pusillum cespitosum; cespites in parte inferiori tomento radiculoso cohaerentes; caulis subuncialis erectus v. ascendens, e basi ipsa julaceus gracillimus filiformis, ramis nonnullis teretibus plerumque simplicibus, inferne rubellus, superne viridis; folia semper erecto-appressa, late ovata et ovali-lanceolata, aequaliter carinato-concava, nervo flavido subtenui in apiculum brevissimum subrecurvum excurrente, margine erecto subintegerrimo, e cellulis anguste rhombeis amoene virentibus basi laxioribus pellucidis quadratis areolata.

Spruce in Ann. and Mag. of Nat. Hist. 1849. Musc. Pyr. No. 141.

*Patria.* Pyrenaei occid., in rupibus humidiusculis ad viam quae ducit a pago Pierrefitte ad opp. Caunterets; Pyr. centrales, in via cava ad pedem montis Superbagnères prope Bagnères de Luchon: Spruce. Anglia, ad catarractam Caldron Snout dictam fl. Tees, mense Julii 1843: Spruce. In reg. montosa inferiore.

Pl. feminea hucusque observata, foliis elongato-lanceolatis subplanis, interioribus minoribus. — *Br. julaceo* habitu simillimum, sed structura folii interna longe distans, *Br. Blindii* affinius, sed notis laudatis certe recedens et distinctissimum.

## 2. Nervio in aristam producto.

a. *Peristomium Pohliae.*

100b. **Br. imbricatum** C. Müll.; *dioicum*, humile, cespitosum innovationibus nonnullis fastigiatis erectis statu humido teretiusculis dense imbricatis ramosum, viride, inferne ferrugineum; folia caulina ovata, nervo rubro tenuiusculo in cuspidem vix reflexam tenuem longam producta, integerrima, margine parum revoluta, e cellulis mediocribus teneris subpellucidis areolata; theca in ped. elongato flexuoso pendula ovalis ampliuscula brevicolla, operculo conico; perist. d. ext. late-lanceolati subulati, interni parum breviores lanceolati integri valde carinati hiantes, ciliis rudimentariis *Pohliae*.

*Patria.* Himalayae montes, ubi lgt. Dr. Hoffmeister.

A *Br. imbricato* proximo notis cursive impressis differt. Pl. mascula femineae intermixta simplex, flore terminali, foliis perig. ovatis seminervibus v. enervibus basi rubris; antherid. majusculis, paraphysibus crassis flavidis mixtis.

c. *Peristomium Bryi.*

104. **Br. atropurpureum** Wahlenb. I. p. 306.

*Br. gracilentum* Tayl. ex animadv. Cl. Spruce forma gemmipara!

108b. **Br. hemisphaericarpum** C. Müll.; dense cespitosum *pusillum* julaceum lutescens tenuiusculum; caulis *brevis* julaceus, apice subgemmae-acutus, parce ramosus, ramis *densis appressis*; folia caulina julaceo-conferta *latius* ovato-lanceolata, carinato-concava, nervo *crassiusculo* in cuspidem *brevem tenuiusculam* producto flavido, margine e basi usque ad apicem revoluta, longius et pellucidius areolata, subintegerrima, *inferiora late ovata obtuse acuta excurrentinervia*; perich. intima minora lanceolata longe cuspidata; theca in ped. brevior nutans, *dolioliformi-ovalis*, lutescens, *deoperculata turgide hemisphaerica macrostoma*, saepius *pedunculi torsione ascendens*, brunnea, *semper collo destituta*, operc. conico minori; perist. breve.

*Patria.* Himalayae montes: Dr. Hoffmeister.

A *Br. versicolori* proximo characteribus designatis refugit.

Sectio VI. **Dieranobryum** C. Müll. I. p. 309. — Plantae gracillimae tenellae; folia dense imbricata lanceolata, margine haud revoluta, minute et dense areolata, carinato-concava, nervo aequaliter crasso flavo pungentia, integerrima; theca erecta, ore coarctata, plus minus urceolata, Ångströmiis tenellis aemulans.

114b. **Br. smaragdinum** C. Müll.; *dioicum*; late cespitosum compactum inferne tomentosum humile *subjulaceum amoene smaragdinum* parce fertile, foliis ovatis pungentibus; fol. perich. late ovato-lanceolata, nervo longe excedente pungentia integerrima immarginata; theca in ped.

longiusculo flexo flavo *ventricose ovalis crassiuscula* olivacea, operculo brevi conico purpureo, ore valde contracta, annulo lato; perist. dentes ext. anguste subulati, *interni rudimentarii hiantes* in membrana longa rugulosa positi, ciliis rudimentariis.

*Patria.* Venezuela, prov. Caracas altit. 4000': Funck et Schlim in Linden Coll. No. 362. 1846. Januar.

Species pulcherrima, notis cursive impressis ab omnibus congeneribus facile discernibilis, *Dicranobryi* sectionis Americae meridionalis prima. *Br. exili* proximum.

Sectio VII. **Argyrobryum** C. Müll. I. p. 313. — Plantae plus minus cespitosae plerumque julaceo-foliosae; folia dense imbricata, minute areolata, mollia, argentea, chlorophyllo superne destituta; theca pendula ovalis.

Sectio VIII. **Sclerodictyon** C. Müll. I. p. 315. — Plantae laxae cespitosae valde ramosae; folia valde concava fere cymbiformia, e cellulis firmis, partim vel omnino inanibus, rhombeis, plus minus latis non angustis firmis areolata, coriacea rigida, nitida; theca pendula plus minus oblongo-pyriformis.

a. *Folia julaceo-imbricata.*

121. **Br. julaceum** Sm. I. p. 315.

*Patria.* Pyren. centrales, reg. subalpina, ad rupes humectas juxta catarractam la Cascade du Coeur dictam: Spruce.

b. *Folia laxae imbricata.*

125. **Br. blandum** Hook. et Wils. I. p. 318.

Fl. Antarct. I. p. 134. t. 60!

126. **Br. laevigatum** Hook. et Wils. I. p. 319.

Fl. Antarct. II. p. 415. t. 154. f. 3.

126 b. **Br. annulatum** Hook. et Wils. (Fl. Antarct. I. p. 134. t. 60.); *dioicum?* caulis cespitosus bilinearis *perbrevis*, ramis confertis; folia conferta, patentia subrigida, *ovato-lanceolata acuta* integerrima concava, nervo crasso continuo *vix excurrente*, sicca non crispata; theca in ped. brevi pendula *parvula* turgide ovalis, operculo conico, annulo *latissimo*; perist. d. ext. lutei trabeculati, trabeculis *remotis*. †.

*Patria.* Insula Campbelli, in planitie raro: J. D. Hooker.

Ex animadv. auctorum *Br. balanoidis* Tayl. mst. (nobis nomine tantum noto,) varietatem putant, foliis rigidis, forma alia praeditis, annulo lato et dentium trabeculis distantibus diversum. Quoad characteres laudatos a *Br. orthoclado*, *blando* atque *laevigato* longe diversum.

Sectio IX. **Orthocarpus** C. Müll. I. p. 319. — Plantae dense cespitosae vel compactae; folia acuminata plerumque pilifera, elongate anguste et paulisper laxae areolata, mollia, margine raro revoluta, plerumque plana concava, saepius cochleariformia; theca erecta pyriformis. Peristomium omnium congenerum *Brachymenii*.

1. Folia patula erecto-pressa.

a. *Folia immarginata.*

129 b. **Br. capillifolium** C. Müll.; *dioicum*; compacte cespitosum, radiculis rufis tomentosum; caulis innovationibus dichotome ramosus, innovationibus plurimis sterilibus; folia conferta laete viridia nitida, madore patentia, sicca imbricata et subcontorta, ramea obovalia et subspatulata, comalia ovali-oblonga et late lanceolata, omnia concava, margine integerrima, ex apice obtuso in apiculum piliformem producta, nervo tenui rufescente; perich. lanceolata tenuissime acuminata; theca in ped. recto unciali erecta, oblongo-pyriformis et clavata, brevicolla, opaca, ore angustata, annulata, operc. conico minuto; perist. ext. d. lanceolati obtusi dense articulati crocei, humore patentem, int. membrana lutescens libera, dentibus dimidio brevioribus, subplicata, margine inaequali nec dentata. †.

*Brachymenium capillare* Schimp. in litteris!

*Patria.* Mexico, Huatusco, Donagua aliisque locis: Liebmann. *Aestate.*

Pl. masc. fertili similis, florib. capituliformibus, foliis perigonalibus ovatis, evanidinerviis, in capillum productis, antherid. oblongis brevi-pedicellatis, paraphys. filiformibus.

129 c. **Br. imbricatifolium** C. Müll.; *dioicum*; *Br. capillifolio* simillimum, sed cespites densiores, caulis hu-

milior, folia densiora, siccitate arctius imbricata latiora, in innovationibus sterilibus ovata, nervo sub apice evanido vel rarius subexcurrente; theca curvula, perist. d. majores, densius articulati, int. membrana externo adnata; sporis majoribus. †.

*Brachymenium imbricatum* Schimp. in litteris!

*Patria.* Mexico, in summo Pico de Orizaba: Liebmann.

b. *Folia marginata.*

**131 b. Br. Magellanicum** C. Müll.; *hermaphroditum*, humile laxe cespitosum innovando ramosum; caulis ramique apice congesto-foliosi, inferne subaphylli radiculosi; folia erecto-patentia laxe reticulata lanceolata, margine reflexiuscula lenissime submarginata, apice minutissime denticulata, nervo basi valde incrassato longe excurrente aristata, theca erecta *oblongo-cylindrica longicolla microstoma* annulata, peristomio pohlioideo, operc. conico-hemisphaerico apiculato. †.

*Peromnion Magellanicum* Sulliv. in Hook. Journ. of bot. 1850. p. 316.

*Patria.* Tierra del Fuego ad fretum Magellanicum: United States Exploring Expedition under the command of Cap. Ch. Wilkes.

**131 c. Br. patulum** C. Müll.; *monoicum!* laxe cespitosum; caulis  $\frac{1}{2}$ — $\frac{3}{4}$  unciae altus, ad comam usque radiculosus; folia inferiora remota, minuta, appressa, ovato-lanceolata acuminata, ferruginea, pellucida evanidinervia; comalia multo majora, conferta patula, spathulata, nervo ferrugineo *in mucronem excedente*, margine plus minus conspicuo circumducta, apice remote denticulata, intense viridia, opaca, sicca complicata tortuosa; perich. minora, vix vaginulam superantia erecta; theca in ped. unciali tenui erecta, *oblonga* leptoderma, badia, *collo sporangio duplo brevior*, siccitate sub ore leniter constricto; perist. majusculi ext. d. lanceolato-subulati, remote articulati, pallide ferruginei, humore erecto-patentes apice incurvi, siccitate omnino incurvi, int. membrana dentibus duplo

brevior, plicata, *marginē inaequali*, laxē reticulata, punctulata. †.

*Brachymenium patulum* Schimp. in litteris!

*Patria.* Mexico, Mirador, ad arbor. truncos Jungermannii intermixtum: Liebmann, m. Julii thecas deoperculatas legit.

A *Br. Peromnio* notis laudatis jam longe differt.

132 b. **Br. crinitum** Mitten (Lond. Journ. of bot. 1851. p. 56!); dioicum, *dense cespitosum* fasciculatim ramosum; folia caulina ovato-oblonga *latiora* concava, nervo in pilum flexuosum *albidum* excedente cuspidata; perich. lanceolata, *marginē reflexa*, e cellulis laxis reticulata; theca in ped. gracili ovato-cylindrica, *longior*, operc. conico brevissimo, perist. *B. Hornschuchiani*. †.

*Patria.* Prope Quito: W. Jameson.

A *Br. Hornschuchiano* statura humiliori et notis laudatis ex auctore differre dicitur. An folia marginata?

134 b. **Br. Jamesoni** C. Müll.; caulis laxē cespitosus erectus subramosus flaccidus pallide viridis subbiuncialis basi rufescenti-tomentosus; folia imbricata erecto-patentia, *sicca minus contorta* subsecunda late ovato-lanceolata marginata serrulata, nervo *ante apicem evanido*, marginē erecto, parum concava; theca in ped. elongato laevi erectiuscula *exapophysata elliptico-cylindracea* laevis, bilinearis, operc. *elongate conico* obtuso; perist. d. ext. opaci rufescentes apice hyalini, int. in membr. colorata irregulariter laciniati. †.

*Brachymenium Jamesoni* Tayl. Lond. Journ. of bot. 1848. p. 282.

*Patria.* Monte Pichincha: W. Jameson, 8. Aug. 1847.

*Br. Hookeri* auctor affine declaravit. Ab hacce specie notis cursive impressis differre dicitur.

134 c. **Br. cristatum** C. Müll.; *dioicum!* cespites laxiusculi subhumiles robusti; caulis semipollicaris innovando ramosus prostratus ascendens; folia caulina sordide viridia, inferne laxē superne sensim dense et apice sub-

comose imbricata, siccitate tortilia, e basi angustiore longiuscule oblongo-ovata, nervo crassiusculo *flavido*, dein rufescente, carinato excedente longius *flavide cuspidata*, *longiora*, *angustiora*, margine ultra medium revoluta, superne sensim erecto late flavide marginato, *undulato*, remote *distinctius irregulariter ciliate dentato*, cellulis basi laxiusculis valde chlorophyllosis, utriculo primordiali valde repletis, dein pellucidis teneris; perich. intima multo minor, anguste lanceolata, margine erecta denticulata, *longius flavide aristata*; theca in ped. elongato tortuoso rubente erecta, interdum nutans, *majuscule clavato-pyriformis longicolla* fusca late annulata, ore minori, operc. hemisphaerico brevi; perist. d. ext. *latissime lanceolati*, linea longitudinali exarati, *trabeculis valde prominentibus et cristam pulcherrimam maxime evolutam sistentibus et apice brevi excavato ruguloso haud cristato instructi*, interni: membrana *altissima* pallida rugulosa, apice in dentes secedentes inaequales brevissimos fissa, ciliis binis rudimentariis interpositis.

*Patria.* India Orientalis, Bombay: Kegel ex horto dom. Van Houtte benevole communicavit; inter *Neckeram procumbentem*, *angustam* et *Macromitr. sulcatum* viget.

Flos masc. terminalis; fol. perig. parvula, e basi latiuscule ovata convoluta breviter acuminata, excurrentinervia, immarginata, integra. — A *Br. brevicauli* characteribus laudatis longe distat et praesertim ob dentes ext. mirabiliter cristatos pulcherrima species.

#### Incertae sedis.

134d. **Br. Regnellii** C. Müll.; dioicum, laxo cespitosum subhumile virens, basi fusco-tomentosum subsimplex; caulis firmus, inferne nudus, fertilis apice brevissime fastigiatis divisus strictus; folia caulina siccitate contorta, madore erecto-patula, *plana* vel parum cava, *obliqua*, late oblongo-lanceolata, ad medium paulisper ovaliformia, obtuse acuta, nervo flavente carinato subtenui excurrente vel evanido percursa, margine basi revo-

luta, superne e cellularum flavidarum seriebus 1—2 veluti marginata et serrulata, e cellulis majusculis rhombeis utriculo primordiali valde repletis reticulata; perich. juniora *ligulato-obtusa* subintegra. Caetera desunt.

*Brachymenium Regnellii* Himp. Linn. XXII, p. 582.

*Patria.* Brasilia, prov. Minarum generalium pr. Caldas: Dr. Regnell. Coll. 375.

Verisimiliter *Orthocarpus*, *Br. Hornschuchiano* haud dissimilis, notis laudatis facile discernibilis.

Sectio X. **Senodictyon** C. Müll. I. p. 325. — Plantae plus minus humiles laxe cespitosae; folia superne in comam plerumque apertam congesta, angusta plus minus lanceolata, e cellulis angustissimis densis firmis plerumque elongatis et inanibus viridibus areolata, medio margine revoluta, nervo tenui evanido vel excurrente, plerumque nitida, serrulata et scariosa, carinato-concava; theca inclinata angusta plus minus cylindrica et longicolla vel ovalis pendula.

### 2. Perist. Pohliae.

144b. **Br. Wilsoni** Mitten (Lond. Journ. of bot. 1851. p. 55!); dioicum, dense cespitosum; caulis longissimus gracillimus ramosus, inferne radiculis fuscis intertextus; folia inferiora ovato-acuminata evanidinervia, superiora sensim longiora, comalia lineari-lanceolata integerrima nitida, nervo crasso percurrente, cellulis laxis angustis; theca in ped. elongato gracillimo erecta pyriformis, membranacea laevis, primum pallida demum fusca, operc. breviter conico concolori, perist. ext. pallidum, int. pertusum, ciliis nullis (?). †.

*Patria.* Prope Quito: W. Jameson.

*Br. pyriformi* simillimum, longitudine *Br. Sphagni*.

### 3. Peristomium Weberae.

#### b. Inflorescentia dioica.

148b. **Br. Lescurianum** Sulliv. (Mem. of the Americ. Acad. of Arts and Sc. IV. p. 171.); *Br. pulchello* maximo simile, sed folia caulina oblongo-lanceolata; perich. multo longiora, intima linearia acuminata; omnia vix serrulata, nervo crasso rufo excurrente; theca late annulata.

*Br. pulchellum* Sulliv. Musc. Allegh. Exs. No. 101!



*Patria.* In terra limosa sylvarum Ohionis prope Cincinnati et Lancaster, ubi Leo Lesquereux legit, rarissimum; ad Columbus lectum copiose misit Sullivan t.

149. **Br. Ludwigii** Spreng. var. *gracile* I. p. 333.

*Patria.* Pyren. centrales, reg. medialpina, in vicinia molium glacialium montis Crabioules: Spruce; secus ripas lacus Lehou: Philippe.

c. *Inflorescentia monoica.*

154b. **Br. Oerstedianum** C. Müll.; *monoicum*; antheridia et habitus *Br. longicollis* simillimi, sed folia *latiora, robustiora, basi laxissime reticulata*, parum falcata; theca *maxime clavata robustissima*, geniculato-inclinata, deoperculata vetusta maxime corrugata leptodermis fusca, operc. conico brevissimo, *in orificio minori posito*; perist. d. interni parum latiores teneriores, ciliis *ternis vel quaternis* plus minus elongatis.

*Patria.* America centralis, Costa Rica, reg. montosa, elev. 5000 — 8000', mens. Febr. et Apr. 1847: A. S. Oersted.

Quoad thecam robustam *Br. crudo* haud dissimile.

157b. **Br. spectabile** C. Müll.; *monoicum*; *Br. integridenti* simillimum, antheridiis paucissimis, densiuscule cespitosum, sed theca *longissime pedunculata, longissime cylindrica, parum arcuata*, angustissima, late annulata, breviter conico-operculata; perist. interni dentes *latiores teneriores, parum perforati*, tenerrime subulati, minus rugulosi, ciliis *singulis* tenerrimis, nodosiusculis, rugulosis.

*Patria.* America centralis, Costa Rica, elevatione 5000 — 8000': A. S. Oersted, mens. Febr. et Apr. 1847.

Ob formam thecae *Mielichhoferiam campylothecam* vel *basilurem* in memoriam redigens.

Trib. XV. DICRANACEAE. I. p. 341.

Folii cellulae prosenchymaticae, parenchymaticis saepius commixtae, rarius scabro-papillosae, alares

basilares pro more in ventrum congestae, vel planae et superioribus multo laxius reticulatae.

Gen. I. **Blindia** Br. et Sch. I. p. 342.

Calyptra dimidiata. Peristom. nullum vel simplex: dentes 16 aequidistantes lanceolati remote articulati laeves tenues intus leviter trabeculati purpurei cartilaginei.

a. *Folia stricta.*

α. Theca peristomata.

1. **Bl. acuta** Br. et Sch. I. p. 342.

*Dicranum Seligeri* Brid. e spec. Hb. Seligeri huc, nec ad *Dicranum fulvellum* Sm., ut Synopsis I. p. 371. dubie indicat, pertinet.

2. **Bl. stricta** C. Müll. I. p. 343.

*Weisia stricta* Fl. Antarct. II. p. 404. t. 152. f. 4.

3. **Bl. contecta** C. Müll. I. p. 344.

*Weisia contorta* Fl. Antarct. I. p. 127. t. 58.

β. Theca gymnostoma.

4. **Bl. Stylostegium** C. Müll. I. p. 345.

*Gymnostomum subulatum* Br. Germ. I. p. 147. t. 10? — Brid. I. p. 104.

b. *Folia crispula.*

5. **Bl. tortifolia** C. Müll. I. p. 343.

*Weisia tortifolia* Fl. Antarct. II. p. 404. t. 152. f. 5.

6. **Bl. Antarctica** C. Müll. I. p. 344.

7. **Bl. crispula** C. Müll.; *monoica*; laxae pulvinata, subhumilis *lutescens* ramosa *laxifolia gracilior*; folia caulina crispula, *siccitate et madore distincte falcata*, longe lanceolato-subulata, angusta, integerrima acuta, *sed nunquam apice brevissimo hyalino terminata*, canaliculato-concava, *ad subulam superiorem dorso tenuiter rugulosa*, e cellulis firmis minutis basi longiuscule rectangularibus superne sensim minoribus distinctius quadratis, minus in membranam conflatis, alaribus paucis planis laxiusculis teneris fuscidulis reticulata, *viridiora*, angustinervia; pe-

rich. cylindraceo-convolutacea, subito acuminata, intima subobtusata, angustinervia, basi laxius reticulata; theca longius pedunculata ovalis parva, longe oblique operculata, fusca, nitidula, imperfecte annulata; perist. d. lanceolati, dense articulati, intense purpurei, apice pallidi, subrugulosi.

*Weisia crispula* Hdw. Sp. Musc. p. 68. t. 12. — Bryol. Europ. Fasc. 33—36. Weisiaceae, p. 9. t. 7. — Brid. I. p. 346. — *W. falcata* Nees et Hsch. Br. Germ. II. p. 71. t. 31. f. 10. — *Grimmia crispula* Sm. Fl. Brit. III. p. 1192.

*β. atrata*, foliis brevioribus, atratis. Br. Europ. l. c. — *W. crispula β. nigrescens* et *γ. atrata* Nees et Hsch. l. c. p. 67. t. 30. f. 15. 16.

*Patria.* In subalpinis et alpinis usque ad limitem supremam vegetationis per totam Europam et in America septentrionali: Drummond. No. 69. Var. *β.* in alpinis ad rupes irrigatas. — *Vere.*

A *Bl. Antarctica* notis cursive impressis longe differt.

**S. Bl. cirrhata** C. Müll.; *monoica*; laxe pulvinata, subhumilis lutescens v. virescens ramosa laxifolia gracilis; folia caulina crispula, *subreflexa*, *haud falcata*, breviter lanceolato-subulata, angusta, integerrima, acuta, *latiora*, canaliculato-concava, *marginē e basi usque ad apicem distincte revoluta*, laevia, e cellulis mollioribus, *grosse quadratis*, *basi chlorophyllosis* rectangularibus, alaribus minus distinctis laxiuscule quadratis fuscidulis paucis reticulata, nervo canaliculato excurrente; perich. *vaginantia*, *haud convolutacea*, breviter acuminata, *haud obtusa*; basi laxe pellucide reticulata; theca *breviuscule pedunculata*, *subcylindracea*, longiuscula, *distincte annulata*, fuscidula, longe oblique operculata; perist. d. lanceolati, *magis regulares*, rufo-purpurei.

*Weisia cirrhata* Hdw. Sp. Musc. p. 69. t. 12. — Br. Europ. Fasc. 33—36. Weisiaceae, p. 9. t. 6. — Brid. I. p. 343. — *W. Dicksoni* Brid. Musc. Rec. II. I. p. 72. — *Grimmia cirrhata* Sm. Fl. Brit. III. p. 1189. — *Encalypta cirrhata* Sw. Musc. Suec. p. 25. — *Barbula cirrhata* Brid. Musc. Rec. II. I. p. 203. — *Afzelia cirrhata* Ehrh. in litt. ad Hedwig. — *Leersia cirrhata* Willd. Prodr. Fl. Berol. n. 902. — *Dicranum cirrhatum* Timm. Prodr.

Fl. Megap. n. 783. — *Gymnostomum cirrhatum* Schrank. Baiers. Fl. II. p. 436. — *Mnium cirrhatum* L. Sp. Pl. p. 1576. — *Bryum cirrhatum* Gmel. Syst. Nat. II. p. 1631. — *Hypnum cirrhatum* Weis. Crypt. Gött. p. 207. — *Bryum cirrhatum et stellatum tenuioribus foliis.* Dill. Musc. p. 379. t. 48. f. 42.

*Patria.* Regione montosa ad saxa, tecta straminea truncosque arborum, per totam Europam. — *Aprili, Majo.*

A *Bl. crispula* characteribus laudatis facile distinguitur.

Gen. II. **Eucámptodon** Mont. I. p. 345.

Calyptra dimidiata. Perist. simplicis dentes 16 aequidistantes, lati, carnosi, linea hyalina longitudinali et lineis transversalibus nonnullis exarati, madefacti horizontaliter incurvi, integri.

Gen. III. **Dicnémon** Schw. I. p. 346.

Calyptra campanulata. Perist. simplicis dentes 16 basi connati, ultra medium bipartiti.

1. **D. calycinum** Schw. I. p. 347.

*Hollia myrmecodes* Sieb. in Regensb. Bot. Zeit. 1826. p. 223, a Sieber e Nova Hollandia relata fide Schwägricheni in Suppl. II. II. 2. p. 175. huc revocanda.

*Patria.* Nova Hollandia: Sieber.

Gen. IV. **Pilopógon** Brid. I. p. 348.

Calyptra dimidiata. Perist. simplicis dentes 16 aequidistantes erecti longi in conum dispositi filiformes rugulosi integri, interdum linea media hic illic exarati, homomorphi, haud trabeculati.

2. **P. calycinus** Schimp. (in litteris!); dioicus; caulis gracilis, e basi decumbente erectus, rigidulus, fragilis; folia conferta erecta subflexuosa, lanceolato-subulata, ad subulam integra vel apice denticulata, nervo lato dorso canaliculato; perich. e basi vaginante subulata, intima in aristam longissimam producta; theca in ped. stricto stramineo subunciali erecta, angusta cylindracea, tenuiter

membranacea, operc. rubello rectirostro, calyptra basi fimbriata ad thecae basin producta; perist. d. aequidistantes subulati, articulationibus et linea divisurali vix conspicuis; sporae minutae laeves. †.

*Patria.* Mexico, Laguna Taleo: Liebmann Febr. 1842 legit.

Gen. V. **Holomitrium** Brid. I. p. 349.

Calyptra dimidiata. Perist. simplicis dentes 16 aequidistantes, madefacti recurvi, lanceolati subulati, inferne trabeculati, linea media in crura duo cohaerentia raro secedentia filiformia rugulosa fissi, longe infra orificium oriundi. — Perichaetium cylindricum longissime exsertum. Inflorescentia monoica vel dioica.

5. **H. serratum** C. Müll.; *dioicum!* caulis e basi decumbente erectus, ramis inaequalibus sub apice florifero egredientibus, fragilibus; folia conferta, basi imbricata, patula, flexuosa, retrorsum vel sursum curvata, haud raro subundulata, siccitate laxa incumbentia et subtorta, elongato-lanceolata, concava, basin versus margine recurva et integerrima, apice plana et dentata, nervo semitereti excurrente, cellulis minimis superne rotundato-quadratis, basi elongatis; perichaetium magnum enneaphyllum, foliis internis thecam longe superantibus, pedunculum arcte vaginantibus, in subulam totam productis; theca in ped. recto erecta, cylindracea, tenuiter membranacea, operc. rostellato breviori, annulo duplici turgido magno hyalino; perist. d. 16 aequidistantes, ad basin bifidi, cruribus inaequalibus subulatis, apice et saepius tota longitudine cohaerentibus, remote articulatis, basi aurantiacis, apice hyalinis, mollibus et fragilibus; sporae minutae. †.

*Cecalyphum serratum* Schimp. in litteris!

*Patria.* Mexico, Pico de Orizaba: Liebmann.

Ex habitu omnino *Holomitrium*, e peristomio paulisper recedente, cruribus subsecedentibus *Holomitrium*

cum *Dicranis* conjungens? Notis cursive impressis ab omnibus congeneribus distinctum.

Gen. VI. **Dicranum** Hdw. I. p. 351.

Calyptra dimidiata. Perist. simplicis ext. dentes sedecim lanceolati, basi trabeculati, in crura duo profunde fissi, purpurei.

Sectio I. **Leucoloma** Brid. I. p. 352. — Folia margine albescente circumducta.

1. **D. Sieberianum** Hsch. I. p. 352.

*Patria.* In collibus Paramatta - Hügel nuncupatis: Hb. Kunzeanum.

5b. **D. Crügerianum** C. Müll.; *dioicum*; cespites humiles pallescentes mollissimi; caulis fragilis nigricans ascendens parce ramosus *tener*, *apice attenuato quidem, sed tamen brevissimo et laxissime folioso contorto, nunquam caudato*, vix subsecundo; folia caulina laxè imbricata valde cirrhata, madore patula, apice subsecunda, *angustissime lanceolato-setacea, basi distincte prominenti-auriculata*, e cellulis alaribus *in ventrum distinctissimum congestis, paucis, magnis, intense et amoene aureo-fuscis*, dein ad marginem albescentibus, reticulata, limbo albescente *angustissimo circumducta*, margine connivente hic illic undulata, dorso ubique tenerrime papillosa, nervo canaliculato angustissimo in subulam elongatam apice serrulatam excurrente, cellulis medio folii *nunquam opacis*, sed pallentibus, ubique fere minute rotundatis basi magis rectangularibus; perich. e basi longiuscule convoluta latiuscula, inferne laxè pellucide vel fusco-reticulatâ subito fere longe setacea; theca in ped. stricto tenero rubro firmo erecta, angustissime cylindrica aequalis, dentibus intense purpureis angustis lanceolato-subulatis, in crura duo ad medium fissis, inferne trabeculatis.

*Patria.* Insula Antillarum Trinidad, monte Tocuche, 28. Mart. 1847: Crüger.

A *D. Brideliano* proximo characteribus laudatis sp. pulchra refugit.

5c. **D. subimmarginatum** C. Müll.; *D. Crügeriano* simillimum, sed *pusillum*, *apice breviter distincte attenuato* subincurvo praeditum; folia caulina breviora, angustissime lanceolato-subulata, *minus setacea*, summo apice serrulata, *inferne tenerrime ad subulam magis convolutaceam grossius papillosa*, nunquam margine undulata, *vix limbo albescente circumducta*, e cellulis *basi longiuscule rectangularibus*, superne parum majus rotundatis, alaribus *planis paucis laxis fuscis reticulata*.

*Patria.* America centralis, Costa Rica, inter elev. 5000 — 8000 pedum; inter Campylopodem specimen unicum sterile invenimus. A. S. Oersted legit.

Sectio II. **Oncóphorus** Brid. I. p. 355. — Theca cernua pro more strumosa.

1. Nervo serrato.

a. *Folia undulata.*

Sb. **D. lophoneuron** C. Müll.; *D. undulato* maximo simile, sed folia *in acumen longum loriforme*, margine *grosse cilato-serratum producta*, e cellulis *laxiusculis*, *ubique parietibus interruptis firmioribus praeditis*, nunquam omnino chlorophyllo repletis composita, inferne integerrima et areolatione simili *D. undulati*, nervo ad acumen dorso *crista grosse ciliato-serrata sublamellosa* praedita; perich. e basi late vaginante convoluta laxe reticulatâ obtusa, *subito in subulam loriformem longam aequalem haud acutam minus et summo apice ciliato-serratam*, areolatione subulae folii caulini praeditam producta; theca in perich. exserto convoluto *solitaria*, in ped. elongato flexuoso rubro laevi.

*Patria.* Mexico, prov. Mechoacan, Cerro San Andres, m. Martii c. fruct. junioribus: v. Chrismar, salinarum praefectus, 1849 legit et Cl. Al. Braun communicavit.

b. *Folia aequalia.*

a. *Folia scopario-imbricata.*

12. **D. convolutum** Hmp. I. p. 358.

13. **D. scoparium** Hdw. I. p. 359.

14. *D. pallidum* Br. et Sch. I. p. 359.

15. *D. congestum* Brid. I. p. 360.

16. *D. majus* Sm. I. p. 360.

17. *D. robustum* Hook. I. p. 361.

Fl. Antarct. II. p. 406. t. 152. f. 3.

18. *D. dichotomum* Brid. I. p. 362.

19. *D. assimile* Hmp. I. p. 362.

20. *D. dicarpum* Hsch. I. p. 363.

β. Folia crispula cirrhata.

20 b. *D. Bruntoni* Sm. (Engl. Bot. t. 2509.); *monoi-*  
*cum*; pulvinato-cespitosum fastigiato-ramosum radiculo-  
sum virescens; folia caulina madefacta erecto-patentia  
laxe imbricata, anguste complicato-lanceolata longiuscula  
flexuosa, margine reflexa superne dentata, e cellulis qua-  
dratis viridissimis, alaribus planis pellucidioribus longiori-  
bus, in utraque pagina papillosis areolata, nervo dorso  
scabriusculo excurrente; perichaetia intima vaginantia,  
basi laxius et tenuius reticulata, *superne subito breviter*  
*acuminata, evanidinervia*; theca in pedunculo breviusculo  
flavido plus minus ovalis et erecta, *laevis* olivacea, collo  
brevis et operculo conico oblique rostrato basi aurantiaco;  
perist. dentes *usque ad basin fissi cruribus purpureis ir-*  
*regularibus rigidis laevibus.*

*Cynodontium Bruntoni* Br. Europ. 33 — 36. p. 3. t. 1. — *Di-*  
*cranum polycarpum* Hook. et Tayl. Musc. Brit. ed. 1. p. 57. — *Di-*  
*dymodon Bruntoni* eor. ed. II. p. 117. t. Suppl. 4. — *Did. obscu-*  
*rus* Kaulfuss in Sturm Fl. Germ. Crypt. Fasc. 16. — Brid. I. p. 516.

*Patria.* In rupibus graniticis, porphyricis et arena-  
riis totius Europae. — *Majo, Junio.*

Flos masc. ad basin perichaetii positus, foliis paucis  
lato-ovatis obtuso-acuminatis obsoletinervis, antheri-  
diis longiusculis paraphysibus tenuibus pallidis mixtis. A  
*D. polycarpo* foliis brevioribus et theca laevi, ab omnibus  
congeneribus peristomio maxime irregulari, sed typice non  
distante, facile distinguitur. Cellulae alares dicranoidei  
marcescentes in foliis senioribus tantum distinctius obser-  
vanda.



**20 c. D. polycarpum** Ehrh. (Dec. No. 84.); *monoicum*; habitus *D. Bruntoni*; folia caulina anguste complicato-lanceolata *longiora* flexuosa, margine reflexa, superne denticulata, e cellulis quadratis viridissimis subrobustis, basi alaribus longioribus pellucidioribus, in utraque pagina papillosis areolata, nervo dorso scabro excurrente; perichætalia intima vaginantia *longe acuminata canaliculata*, nervo crasso excurrente praedita, basi e cellulis longioribus laxioribus sed firmissimis areolata, superne *subdenticulata*; theca in pedunculo breviusculo flavido plus minus ovalis et erecta *leviter striata* olivacea, collo brevi et operculo conico oblique rostrato basi aurantiaco; perist. dentes *longi robusti in crura duo regularia usque ad medium fissi, inferne lati, rubiginosi rugulosi.*

Br. Europ. Fasc. 37—40. p. 14. t. 2. — *Oncophorus polycarpus* Brid. I. p. 397. — *O. strumifer*  $\beta$ . *substrumosus* ej. p. 396. e spec. herbarii sui. — *Fissidens polycarpus* Hdw. Musc. Fr. II. p. 85. t. 31. — *Cecalyphum multiflorum* P. B. Prodr. p. 51. — *Bryum polycarpon* Hoffm. Deut. Fl. II. p. 37. — *Br. medium* Vill. Fl. Dauph. III. p. 878. — *Bryum cirrhatum* setis et capsulis brevioribus et pluribus. Dill. Musc. p. 378. t. 48. f. 41.

$\beta$ . *gracilescens*; gracilius, foliis magis evanidinerviis et theca magis erecta. *Dicranum gracilescens* W. et M. Bot. Taschenb. p. 184. — Brid. I. p. 441. — *D. mixtum* De Not. Mant. No. 52. et Syllab. Musc. p. 210.

$\gamma$ . *curviseta*; pedunculus arcuatus, theca brevior valde sulcata. *Campylopus cirrhatum* Hsch. in Brid. I. p. 479. — *Dryptodon Campylopus* Brid. I. p. 773. — *Dicr. gracilescens*  $\beta$ . *curvisetum* Br. Europ. I. c.

$\delta$ . *tenella*; humilis, folia angustiora sublaevia vel laevissima, theca obsolete striata. *Dicran alpestre* Wahlenb. Fl. Lapp. p. 309. — *D. gracilescens*  $\gamma$ . *alpestre* Br. Europ. I. c. — *D. tenellum* Pösch.

*Patria.* In rupibus umbrosis per regionem montanam et alpinam totius Europae et in America septentrionali. Var.  $\beta$ . in humidiusculis alpium. Var.  $\gamma$ . ibidem. Var.  $\delta$ . in rupibus siccioribus Hercyniae, Saxoniae ad m. Bastei, Bohemiae, Helvetiae, Tirolis, Scandinaviae et Lapponiae. — *Aug., Sept.*

Flos masc. ad basin perichaetii paucifolius. Folia perig. lato-ovata subacuminata vel obtusa, intima enervia. Antheridia elongata, paraphysibus filiformibus paucis mixta. Cellulae alares dicranoideae ut in praecedente.

20 d. **D. strumiferum** Ehrh. (Dec. No. 74.); *monoicum*; habitus et folia *D. polycarpi*, sed *gracilius et theca basi constanter strumosa*.

*Dicranum polycarpum*  $\beta$ . *strumiferum* Br. Europ. Fasc. 37 — 40. p. 14. t. 2.  $\beta$ . — *D. gibbosum* Brid. Sp. Musc. I. 225. — *Onophorus strumifer* Brid. I. p. 395. — *Fissidens strumifer* Hdw. Musc. Frond. II. p. 88. t. 32. — *Cecalyphum strumiferum* P. B. Prodr. p. 52. — *Bryum strumiferum* Dicks. Fasc. III. Pl. Cr. p. 8.

*Patria.* In rupibus umbrosis per regionem montanam et alpinam totius Europae et in America septentrionali. — *Aestate.*

Flos masculus *D. polycarpi*. Transitum in hanc speciem inter specimina permulta regionum diversissimarum non, sed thecam semper perfecte strumosam vidimus.

2. Nervo laevi.

a. *Folia integra.*

24. **D. tenuifolium** Hook. et Wils. I. p. 365.

Fl. Antarct. II. p. 407. t. 152. f. 7.

Incertae sedis.

27. **D. imponens** Mont. I. p. 366.

*D. involutifolium* Sulliv. in Hook. Journ. of bot. 1850. p. 316.

*Patria.* Terra del Fuego ad fretum Magellanicum: United States Exploring Expedition of Capit. Ch. Wilkes.

b. *Folia denticulata.*

28. **D. pungens** Hook. et Wils. I. p. 367.

Fl. Antarct. I. p. 129. t. 59. f. 1.

29. **D. setosum** Hook. et Wils. I. p. 368.

Fl. Antarct. I. p. 129. t. 58.

33. **D. Mühlenbeckii** Br. et Sch. I. p. 370.

*Patria.* In Bavaria superiore, Teufelsgsais, 5400' alt., 1. Sept. 1849. c. fruct. maturis; in alpihus Algovicis

Bavariae, Wengenkopf, elev. 6300 pedum, 14. Julio c. fruct. junioribus: Sendtner. In Bosnia, ut ex litteris elucet, Sendtner quoque legit.

Incertae sedis.

34b. **D. Menziesii** Tayl. (Phytologist I. p. 1093.); caulis ascendens semiuncialis densifolius breviter fastigiatim divisus; folia caulina suberecta conferta secunda, subrigida, flavescentia, e basi angustissime lanceolatâ in subulam longissimam setaceam flexuosam v. strictiusculam producta, nervo crasso, subulam totam occupante, superne canaliculato, marginibus basi inflexis; perich. vaginantia breviora, basi dilatata; theca in ped. brevi vix tortili suberecta cylindraco-elliptica, aperta cylindraco-oblonga, angustiuscula, apice curvata, siccitate ore contracta, demum obscure striata, basi substrumosa, operc. thecam aequante, longe oblique subulato; dentes perist. suberecti incurvi rubri.  $\frac{1}{4}$ .

Hook. et Wils. cum ic. in Fl. Antarct. I. p. 128. t. 53.

*Patria.* Nova Seelandia: Menzies; Insula Norfolk: Allan Cunningham; insulae Aucklandi, ad truncos arborum rarius et sterile: J. D. Hooker.

Ex obs. Wilsoni a *D. fasciato* differt: foliis longioribus, magis setaceis, nervo valido percursis, theca solitaria oblonga.

Sectio III. **Orthodicranum** C. Müll. I. p. 371. — Theca erecta cylindrica aequalis.

a. *Folia falcata.*

α. Inflorescentia monoica.

35. **D. fulvellum** Sm. I. p. 371.

*Bryum fulvellum* Dicks. Crypt. Fasc. 4. t. 11. f. 1!

*Patria.* Pyrenaei centrales, in rupibus subhumidis, Esquierry, Crabioules, Lac Lehou: Spruce.

Specimina Pyrenaica fide Sprucei folia *D. fulvelli* et thecam *D. hyperborei* striatam habent; spec. Britannica *D. fulvelli* ex ejusdem animadv. theca striata praedita sunt, quare auctor *D. hyperboreum* ad *D. fulvellum* re-

vocavit. Nos ipsi *D. fulvellum* solum theca siccitate leviter sulcata praeditum e Norvegia accepimus.

β. Inflorescentia dioica.

41. **D. Sauteri** Br. et Sch. I. p. 375.

*Patria.* Bavaria superior, in alpib. Algovicis: **Sendtner**; in alpib. Noricis: **W. P. Sch.**; in Pyrenaeis occid., in abieginis nigris vallis Jéret, in Pyren. central. reg. infraalpina montis Crabioules, saxa granitica obtegens: **Spruce**, in alt. 6000' legit.

b. *Folia patentia.*

43b. **D. enerve** Theden. (in Hartm. Skandinavisk Flora. Ed. V. p. 393.); *dioicum*; *D. stricto* simillimum, sed *major robustius*, dense cespitosum; folia stricta et subfalcatata, e basi oblonga concava in subulam canaliculatam fere tubulosam integerrimam producta, *nervo dilatato totam fere paginam occupante, colore ex albicante viridi*; theca oblonga vel cylindrica recta vel subincurva, operculi rostro longissimo, annulo simplici; perist. purpurei dentes *majores*, densius articulati et densius striolati; sporae *majores*, inaequales virides.  $\frac{1}{4}$ .

*D. albicans* Br. Europ. Fasc. 43. tab. suppl. I. — *D. Kasbeckianum* Kolenati in sched. ad Schimper.

*Patria.* In Helvetiae alpibus, ubi in alpe Grimsel sterile legit **W. P. Sch.**; in Caucasi monte Kasbeck **Dr. Kolenati** fertile detexit; in alpibus Bernensibus fructibus perfectis leg. **Bamberger**, pharmacopola; in Herjedalia Scandinaviae, Skarffjellet: **Thedenius**. — *Septembri*.

46. **D. aciphyllum** Hook. et Wils. I. p. 378.

Fl. Antarct. II. p. 405. t. 52. f. 3.

46b. **D. rhabdocarpum** Sulliv. (Mem. of the Amer. Acad. of Arts and Sc. IV. 1849. p. 172. t. 3.); *dioicum*; densissime cespitosum; caulis pluries dichotomus ascendens tomentoso-radiculosus; folia lutescenti-viridia nitida erecto-patentia, apicalia saepe subhomomalla, stricta, concava, caulina lanceolata, comalia elongato-lanceolata

attenuata, omnia nervo infra apicem dentatum evanido dorso apice scabro instructa, laxe areolata; perich. vaginantia; theca erecta ovali-cylindrica regularis, sicca 5—8 *costata*, exannulata, operculo oblique longirostro; perist. d. longi ad medium bifidi. †.

*Patria.* New-Mexico, Santa Fé: Fendler.

Habitu *D. scoparii* et ex auctore *D. Bonjeani* proximum, sed thecae forma longe recedens.

47 b. **D. speirophyllum** Mont. (Voy. de la Bonite. Crypt. p. 275.); caulis luteo-fuscescens, longissimus, parce ramosus; folia *remota undique patentissima, multo breviora*, e basi semiamplexicauli brevissima reflexa, ad alas cellulis alaribus multis planis rufescentibus laxis praeditâ latiuscule convolutaceo-lanceolata et spiraliter pluries torta, *superne argute serrulata*, nervo *angustissimo subobsoleto apice saepius serrulato* ante apicem evanido, cellulis ubique robustis maxime inaequalibus pachydermibus incrassatis interruptis longiuscule prosenchymaticis laevibus.

*Patria.* Sandwich insulae: Gaudichaud.

A *D. specioso* proximo characteribus laudatis distinctum, sterile tantum observatum.

48 b. **D. brachypelma** C. Müll.; *dioicum*; *D. Blumii* proximum, sed parum robustius, folia densius imbricata, *horride patentia*, apice caulis in comam *indistinctam brevem* subsecundam congesta, *robustiora latiora*, late elongate lanceolato-subulata, subcymbiformia, *nunquam convoluta, vix intorta, superne margine et dorso nervi grosse et dense serrata*, ubique e cellulis elongatis *laxe prosenchymaticis* interruptis, *flavide pachydermibus* scariosis et alaribus permultis *laxius et longius hexagonis, fuscidulis et mox pellucidis, nunquam intense fuscis*, reticulata, nervo tenui excurrente; perich. e basi vaginante longius subulata, ad subulam minus serrata; theca in ped. brevi innovando laterali erecta solitaria breviuscula cylindrico-oblonga laevis fusca; perist. d. longi ad medium usque fissi purpurei. Caetera desunt.

*Patria.* Java: Blume. Hb. Al. Braun.

Sectio IV. **Campylopus** Brid. l. p. 383. — Folia cymbiformi-concava, nervo latissimo planato saepius lamelloso percursa; theca pro more pedunculo descendente arcuato hygrometrico demissa et calyptra plerumque basi fimbriata obtecta.

1. Folia depilia.

B. *Elata.*

1. Caulis inferus foliis appressis teres.

61. **D. Grateloupii** C. Müll. l. p. 387.

*Patria.* An Mauritius? an Guadeloupe? quaesivit Spruce, qui plantae habitum magis exoticum recte intellexit et speciem in Pyrenaeis nusquam vidit.

2. Caulis foliis ubique patulis heteromorphus.

a. *Folia heteromalla.*

β. *Imbricata.*

†. *Patula.*

69 b. **D. savannarum** C. Müll.; *dioicum*; cespites *quam maxime latissimi procumbentes, e brunnescente lutescentes bicolores*, ob caules intertextos crassos parce distantidichotomos hic illic genuflexos *apice scopario-comosos rigidos* ad apicem usque tomentosos et folia siccitate horride imbricata *rigida habitu firmo horride scopario*; folia caulina apicem versus dense imbricata, madore ubique patula subreflexa, *multo breviora*, vix falcata, lanceolato-subulata, superne et *apice hyalino* margine et dorso serrulata, nervo latissimo laxo reticulato fere  $\frac{3}{4}$  folii occupante et cellulis alaribus robustis laxis permultis fuscis vix ventricosis praedita, e cellulis rhombeo-ellipticis, *basi grosse rectangularibus*, incrassatis areolata.

*Patria.* Surinam, in savannis arenosis planitiei prope Mariepaston ad flum. Saramaccam superiorem, inter fruticeta: Kegel sterile legit.

A *D. concolori* proximo characteribus laudatis facile distinguitur. Pulcherrima species.

††. *Stricta.*

70 b. **D. Oerstedianum** C. Müll.; *dioicum*; cespites *densissime compacti, inferne rufescentes superne amoene*

*lutescentes splendentes, rigidissimi, laxè cohaerentes, vix tomentosi, subhumiles; caulis gracilis fragilis flexuosus, ramis appressis dichotome divisus, bicolor, indistinctè angulatus, apice tenui subincurvo acuto; folia caulina densissime appressa strictissima, anguste canaliculate lanceolato-subulata brevia, apice truncatulo dentibus nonnullis distinctis serrulato, nervo latissimo subulam totam superne convolutaceam occupante, cellulis alaribus supra basin fibroso-decurrentem tantum marginalibus teneris laxis pellucidis.*

*Patria.* America centralis, Costa Rica, in regione alpina Vulc. Irasu, alt. 11,000 pedum: A. S. Oersted mens. Febr. et Apr. 1848 sterile legit.

Notis cursive impressis species facillime cognoscenda pulcherrima, *D. bicolori* proxima.

**70 c. *D. flagellaceum*** C. Müll.; humile dense compactum strictum gracile, ob flagella multa gracilia filiformia tenerrima fragilia stricta habitum setosum sistens, sericeum; folia caulina laxè imbricata, siccitate et madore appressa, brevia, lanceolata, cymbiformi-concava, summo apice parce denticulato terminata, strictissima, margine erecto, nervo latissimo planissimo laevissimo paginam folii superiorem totam occupante, cellulis parvis subquadratis mollibus chlorophyllosis, alaribus multis laxis planis fuscis. Caetera desunt.

*Patria.* Mexico, prov. Mechoacan, Cerro San Andres: 1849. m. Martii inter *Symblephar. Chrismari* legit v. Chrismar.

A *D. flagellari* primo visu cespitibus compactis nervoque Campylopodis lato, a Campylopodibus omnibus flagellis descriptis differt.

**70 d. *D. brachyphyllum*** Mitten (in Lond. Journ. of bot. 1851. p. 52!); cespitosum gracile strictum lutescens, inferne fusco-tomentosum, innovationibus julaceis; folia caulina siccitate arcte appressa remota lanceolato-acuminata, summo apice parce denticulata, basi cellulis alaribus valde conspicuis; comalia densiora; perich. vaginantia su-

perne serrulata; thecae solitariae vel plures ex eodem perichaetio in ped. cygneis obovatae gibbosae, siccitate curvulae, operc. conico subulato rubro obliquo, calyptra fimbriata; perist. *D. flexuosi*. †.

*Campylopus brachyphyllus* Wils. in sched. ad Mitten.

*Patria.* Prope Quito: W. Jameson.

Ex obs. auctoris *D. Funkii* simile, sed theca magis curvula et illi *Angströmiæ heteromallae* similior.

**71. *D. Funkii* C. Müll. I. p. 393.**

*Campylopus Arduennae* Libert. in Pl. Exs. Crypt. Arduenn., a domina Libert coll.

**73b. *D. capitiflorum* Mont. (in litteris!);** dense cespitosum, usque fere ad apicem tomento fusco praeditum, elatiusculum lutescens rigidum, ex apice fertili innovans; folia caulina erecto-imbricata, ad apicem fertilem patulocomosa, substricta, longiuscule lanceolato-acuminata cymbiformi-concava, marginibus erectis nec convolutaceis apice serrulatis, ob dentes summo apice haud acuta, nervo lato dimidiam partem folii tantum occupante, dorso brevissime scabro-lamelloso excurrente percursa, ubique e cellulis lutescentibus parvis incrassatis basi quadratis laxioribus et alaribus in ventrem distinctum congestis laxissimis fuscis reticulata; perich. e basi longissime vaginante convolutacea laxiuscule pellucide et elongate reticulata longissime setacea caulinis simillima latinervia; thecae in ped. breviusculis valde arcuatis descendentes plures distincte terminales, gibboso-ovales parvulae, siccitate curvatae, sulcatae, microstomae, ad latus basilare unicum parum rugulosae, lutescentes, operc. conico subulato obliquo rubro, calyptra straminea magna, longissime apiculata, basi parce longiuscule hyaline fimbriata, glabra; perist. d. intense rubri, breviusculi, dense conniventes, ad medium usque tenuiter bifidi.

*Patria.* Insula Bourbonis, unde am. Montagne benevole nobis tradidit.

A *D. nivali*, *Pilopogo* haud dissimili, ob notas laudatas toto coelo distans et *D. Funkii* affinius.



b. *Folia homomalla.*

α. *Falcata.*

78. **D. reduncum** Hsch. et R. I. p. 396.

*Patria.* Java, in prov. Buitenzorg, alt. 800 hexap.:  
Bélangér.

82b. **D. Zollingerianum** C. Müll.; dioicum; late et compacte pulvinatum altiusculum firmum lutescens; caulis ascendens *altiusculus* pollicaris, gracilis, inferne simplex, foliis appressis veluti nudus, superne innovationibus *subreduncis sursum falcatis* brevibus pluribus fertilibus divisus; folia caulina praecipue ad innovationis apicem *parum falcata*, e longe fibroso-decurrente basi anguste oblonga et inde lanceolato-subulata *subfalcata* breviuscula acutissima, subintegerrima, laevia, nervo lato deplanato excurrente, cellulis laxiuscule quadratis, superne parvis densis, alaribus marginalibus planis teneris pellucidis; perich. e basi longe vaginante elongate laxe reticulata pellucida virente tenerâ in *aristam longissimam flexuosam* subintegerrimam producta, intimum longe convolutum; theca in ped. *breviusculo valde flexuoso* firmo laevi erecta, sed ob pedunculi deflexionem nutans, parvula, oblonga aequalis, laeviter *sulcata*, collo *brevi laevi instructa*, late annulata, operc. conico, oblique subulato; perist. d. angusti purpurei trabeculati, in crura duo pallida tenuissima rugulosa ad medium usque fissi; calyptra basi integra vix fissa.

*Patria.* Insula Sumbawa archipel. Indici, ad rupes, altitud. 4800 pedum: Zollinger sub No. 1184. Z.

Notis illustratis a *D. flexifolio* differt; a *D. flexuoso* calyptra integra jam distat; *D. comosum* primo visu innovationibus julaceo-cuspidatis recedit; *D. reduncum* foliis capillaribus serratis, perichaetialibus basi purpurascens thecisque subgibbosis jam facillime cognoscitur. — Pl. mascula *D. flexifolii*.

82c. **D. Helenicum** C. Müll.; dioicum; late cespitosum *laxe cohaerens* altiusculum firmum *sordide* lutescens; caulis erectus ultrapollicaris, gracilis, inferne simplex

appressifolius filiformis, medio in ramum *sterilem elongatum apice subincurvum filiformem cuspidatum subjulaceum et ramum fertilem breviorum vel aequilongum inferne filiformem apice parum comosum monocarpum divisus*; folia caulina imbricata, hic illic siccitate paulisper et madore vix falcata *D. Zollingeriani*, sed *superne obsolete denticulata et summo apice ob dentes duos diviso*, cellulis parvis incrassatis rhombeo - quadratis, basi longioribus rectangularibus, plus minus incrassatis, *alaribus in ventrem distinctissimum hemisphaericum deciduum fragile congestis, intense fuscis laxis*; perich. *D. Zollingeriani*, sed basi densius reticulata, stricta, summo apice bidentata; theca in ped. brevi rubente tortili erecto, madore descendente demissa, parva, gibbose ovalis, annulata, leviter sulcata, operc. conico oblique subulato, calyptra *basi parce breviter fimbriata*.

*Patria.* St. Helena. Kunze donavit.

A *D. Zollingeriano* affini caract. descriptis facile discernibile.

β. Uncinata.

89. **D. denudatum** Brid. I. p. 403. — Perist. dentes ad basin usque fissi.

89b. **D. Mitteni** C. Müll.; elatum laxe cespitosum dichotome ramosum, apice falcatum, lutescens inferne fuscens; folia caulina secunda falcata, e basi lata sensim longissime acuminata capillacea, concava, laevia, basi cellulis alaribus conspicuis; perich. basi convoluta; theca in ped. flexuoso erecto oblonga laevis, operc. conico subulato, calyptra basi fimbriata. †.

*D. erectum* Mitten in Lond. Journ. of bot. 1851. p. 53. Nomen jam usum mutandum fuit. — *Thysanomitrium macrophyllum* Wils. in schedulis ad Mitten.

*Patria.* Prope Quito: W. Jameson.

Ex obs. *Mitteni D. uncinato et denudato* affine, sed muscus late cespitosus, habitu *D. majus* spectans.

91. **D. stenocarpus** C. Müll. pro *D. stenopus* legatur.

## 2. Folia pilifera.

## b. Pilo stricto.

105b. **D. laevigatum** C. Müll.; *dioicum*; laxe cespitosum; caulis ascendens, innovationibus incurvis; folia erecto-patentia, rigida, e lineali-lanceolato subulata, pilo brevi vel subnullo, serrulato vel sublaevi, concava, apicem versus subfistulosa, nervo dilatato tenui, *dorso sublaevi*, inferiora atrata, superiora novella luteo-viridia; theca oblongo-ovalis tenuiter membranacea *laevis*, *collo calloso*; perist. *D. Liebmanni*, sed angustius. †.

*Campylopus Richardi* Schimp. in litteris. — *C. laevigatus* Schimp. olim.

*Patria.* Mexico, Tropiche, in vicinitate montis Orizabae: Liebmann.

Ob notas laudatas paucas jam a *D. Richardi* vero differre nobis videtur.

105c. **D. lamellicosta** C. Müll.; foliorum forma et nervo lamelloso, caule radiculoso et peristomio *D. laevigato* proximum, diversum autem foliis magis imbricatis brevioribus, pilo brevioris sublaevi et colore inferiorum rufescente haud nigricante, theca brevioris. †.

*Campylopus lamellicosta* Schimp. in litteris!

*Patria.* Mexico, La Foga: Liebmann Augusto fruct. deoperculatis legit.

105d. **D. Liebmanni** C. Müll.; *dioicum*, laxe cespitosum; caulis uncialis et longior, e basi decumbente erectus, radiculosus; folia e basi imbricante erecta, apice patula, in ramorum summitate comam penicillatam efformantia, rigida, lineali-lanceolata, pilifera, concava, integra, pilo argute exasperato; perich. ad baseos margines membranacea; omnia nervo dorso lamellato et  $\frac{3}{4}$  folii occupante percursa; theca in ped. e stramineo rubello superne papilloso demissa, ovalis laevis, tenuiter membranacea, operc. brevirostro, margine eroso, annulo duplici; perist. d. angusti. †.

*Campylopus Liebmanni* Schimp. in litteris!

*Patria.* Mexico, Chinantle: Liebmann aestate legit.

*D. introflexo* et habitu, magnitudine et colore affine, primo visu ex Schimper capitulis floriferis minus incrassatis et theca omnino laevi tenuiter membranacea, evacuata pallide straminea distingueudum.

105e. **D. lutescens** C. Müll.; *dioicum*; caulis simplex erectus rigidus, innovationibus strictis, capitulis multifloris subglobosis terminatis; folia stricta incumbentia, ad capitulorum basin recurva, elongato-lanceolata, canaliculata, comalia latiora tantum piligera, nervo  $\frac{3}{4}$  folii occupante, dorso dense lamellato; calyptra valde fimbriata.  $\frac{1}{4}$ .

*Campylopus lutescens* Schimp. in litteris!

*Patria.* Mexico, monte Orizaba: Liebmann sterile legit.

*D. introflexo* ex obs. *Schimperi* affine.

105f. **D. proliferum** C. Müll.; *dioicum*; cespites elongati densi rigidi lutescentes; caulis masculus elongatus tripollicaris gracilis, ob folia appressa ubique tenuiter julaceus, proliferationibus masculis turgide capituliformibus, madore rosulatis, remotis tribus (terminali inclusa) praeditus, inferne tomento brevissimo albidō v. purpurascēte, ad flores masculos in medio caulis positos saepius proliferationibus conformibus elongatis divisus; folia caulina appressa breviuscula, e basi longe fibroso-decurrente anguste cymbiformi-lanceolata, apice parum emarginata, pilo brevissimo vel parum longiore dentato hyalino terminata, nervo lato, dorso breviter lamelloso, margine erecto vel apice parum involutaceo, ubique integerrimo, cellulis alarum latiuscularum inferne angustissime elongatis, superne incrassatis minutis rotundatis v. ellipticis, alaribus nullis; involucralia latissime oblongo-ovata brevipila, apice plerumque valde emarginata et erosa, magis convolutacea, cellulis alaribus utrinque ad basin planis multis intense fuscis laxis; perigonialia his multo minora depilia obtusiuscula, nervo angusto obsoleto lamelloso, ubique integerrima, haud emarginata.

*Patria.* Venezuela, colonia Germanica Badensis To-var, 5600' alt., 1849 m. Januar. leg. Wagner.

Notis designatis facile discernibile. Antheridia magna pallida; paraphyses multae aureae gracillimae.

106. **D. atro-virens** C. Müll. I. p. 414.

*Patria.* Zona subalpina, in sylvarum rupibus humidis sterile, Pyren. occid. Monte Goursi, Pyren. centr. Vallon de Castelloubon: Spruce.

Trib. XVI. LEPTOTRICHACEAE.

Folii cellulae basi rhombeae superne rectangulares vel mixtae laeves, alares propriae nullae.

Gen. II. **Campylostelium** Br. et Sch. I. p. 417.

Calyptra mitraeformis. Perist. simplicis dentes 16 in membrana reticulata aequidistantes lanceolati purpurei dicranoideo-bifidi.

1. **C. saxicola** l. c.

*Patria.* In Pyrenaeis centralibus, locis umbrosis in saxis arenaceis, Labassère, Vallon de Castelloubon: Spruce.

Gen. I. **Brachyodus** Fürnr. I. p. 416.

Calyptra mitraeformis. Perist. simplicis dentes 16 brevissimi, lati, obtusi, irregulariter lacerati, tenerrime membranacei, pallidi, fugacissimi, aequidistantes vel parum confluentes.

Gen. III. **Seligeria** Br. et Sch. I. p. 418.

Calyptra dimidiata. Perist. nullum vel simplex: dentes 16 aequidistantes lanceolati planissimi aurantiaci articulati, linea media exarati igitur plus minus fissiles, vel pertusi.

Sectio I. **Euseligeria** C. Müll. I. p. 418. — Plantae pygmaeae, peristomio planissimo laevi.

5. **S. Doniana** C. Müll. I. p. 420.

*Patria.* Pyren. centr. in rupibus calcareis occultis pr. Bagnères de Bigorre, in zona montosa: Philippe ex Spruce. In Scandinavia ex Ångström.

Sectio II. **Leptotrichella** C. Müll. I. p. 421. — Plantae elatiores, perist. d. linea media exarati.

7. **S. Kunzeana** C. Müll. I. p. 421.

*Patria.* America centr., Costa Rica, Aguacate, alt. 1500' mens. Novbr. 1847: A. S. Oersted. Forma foliis latioribus firmioribus strictioribus, e cellulis flavissimis magis incrassatis areolata. Inter *Polytrich. tortile* Sw.

11. **S. linearifolia** C. Müll.; dioica, subramosa densiuscule compacte cespitosa; folia erecta multa perangusta linearia sensim acuminata stricta tenacia integerrima nitidula lutescentia, nervo crasso fusco ante apicem evanido, cellulis rhombeo-linearibus laevibus; perich. similia; theca in ped. erecto vel deflexo luteo-rufo breviusculo erecta ovata aequalis, ore paulum contracta sulcata badiata; perist. d. breves remoti lineares erecti, transversim striati, integri, rufescentes. †.

*Weisia linearifolia* Hsch. in Schw. Suppl. II. II. 2. p. 92. t. 179.

*Patria.* Java: Reinwardt.

Pl. mascula brevior, flore globoso; fol. perig. ovato-acuminata concava, nervo in medio folii evanido, rufescentia basi, apice pallida. Anth. copiosa, paraph. filiformes limpidae. — A caeteris Seligeriis theca sulcata jam recedit.

Gen. IV. **Garckea** C. Müll. I. p. 424.

Calyptra campanulata. Perist. simplicis dentes 16 lanceolati subperforati Trematodontis.

Gen. V. **Eccremidium** Hook. et Wils. I. p. 425.

Calyptra minute campanulata. Theca gymnostoma medio dehiscens, cum operculo arcte connata.

Congeneres ad *Garckeeae* genus forsan pertinentes.

Gen. VI. **Ångströmia** Br. et Sch. I. p. 426.

Calyptra cucullata. Perist. nullum vel simplex  
*Dicrani*.

Sectio I. **Euangströmia** C. Müll. I. p. 426. — Plantae ju-  
laceae rectisetae.

Sectio II. **Campylopodium** C. Müll. I. p. 429. — Plantae  
homomallophyllae, pedunculis cygneis.

Sectio III. **Dicranella** C. Müll. I. p. 430. — Plantae sim-  
plices, foliis plus minus patulis pedunculisque erectis.

a. *Folia homomalla*.

β. *Theca exstrumosa*.

11 b. **A. planinervia** C. Müll.; caulis cespitosus sub-  
simplex subuncialis, superne laete viridis, inferne brun-  
nescens; folia parum amplexicaulia imbricata secunda apice  
falcata, ex lata triangulari basi lineari-subulata *minus*  
*setacea* integerrima, nervo latissimo *saepius indistincto*;  
theca inclinata inaequalis *angustius* ovata, operc. *brevi-*  
*rostro*; perist. d. inaequaliter bifidi. †.

*Dicranum planinervium* Tayl. Lond. Journ. of bot. 1848. p. 281.

*Patria*. Monte Pichincha: W. Jameson, 8. Aug.  
1847.

Ab *A. subulata* characteribus laudatis ex animadv.  
auct. distat.

14 b. **A. Liebmanniana** C. Müll.; *dioica*, humilis sub-  
simplex tener dense foliosa; folia subflexuoso-potentia  
vel subsecunda, siccitate leniter torta, *mollia*, pallide vi-  
ridia, inferiora lanceolata, superiora lineali-lanceolata,  
comalia longiora; perich. his similia; omnia obtusiuscula  
vel obtusa, apice denticulata, canaliculata, nervo laxo sub  
apice evanido, cellulis superioribus rectangulis inferioribus  
rhombeis hyalinis; theca erecta vel obliqua, *collo de-*  
*fluente*, operc. longirostro, annulo *duplici lato revolubili*;  
perist. d. infra medium bifidi, dense articulati, linea divi-  
surali nulla, sicci incurvi, aurantiaci *liberi* nunquam con-  
torti; sporae majusculae. †.

*Dicranoweisia subulata* Schimp. in litteris.

*Patria.* Mexico pr. Mirador: Liebmann.

Ab *A. tenuirostri*, ex auctore simillima, notis designatis differre dicitur.

14c. **A. microdonta** C. Müll.; dioica, altior, ramosa, ramis subfastigiatis fertilibus; folia undique patentia vel subsecunda, e basi latiore subvaginante lineali-subulata, canaliculata, nervo excurrente; theca erecta oviformis pachyderma, collo subnullo, operc. longirostro, annulo duplici fragmentarie secedente; perist. d. breves, ad medium in crura duo subaequalia divisi, fugacissimi. †.

*Dicranoweisia microdonta* Schimp. in litteris.

*Patria.* Mexico pr. Mirador, in terra argillosa: Liebmann.

14d. **A. compacta** C. Müll.; dioica, dense aggregata et pulvinato-cespitosa *gracilescens*, inferne venoso-rubella, superne pallide viridis, radiculis superioribus teneris pallidis, minus ramosa, nunquam tomentosa; folia *A. densae*, sed pallidiora, ad caulis apicem subsecunda, siccitate flexuosa; perich. caeteris similia, majora, basi semivaginante longiori; theca *A. densae* in ped. stramineo flexuoso semiuncia brevior cernua incurva, pallide aurantiaca, collo brevi defluente, annulo lato, operc. oblique rostellato aurantiaco; perist. *A. densae*. †.

*Dicranoweisia compacta* Schimp. in litteris.

*Patria.* Mexico, Sta. Gertruda, Talco: Liebmann Augusto.

b. *Folia heteromalla.*

α. Squarroso-reflexa.

†. *Elatae.*

18b. **A. pellucida** C. Müll.; laxe cespitosa parce dichotome ramosa flexuoso-erecta plus minus gracilis et e viridi amoene flavescens, inferne radiculosa ad perichaeium innovationem longam efficiens; folia laxe imbricata *erecto-flexuosa squarrosa crassiuscula*, e basi erecta oblonga subvaginante concava longius et amplius areolata plus minus reflexe lanceolata, superne et dorso nervi eva-



*nescentis crassi carinati viridis plus minus denticulata, e cellulis minutis quadratis viridissimis valde papillosis areolata; perichaetialia latius vaginantia; theca in pedunculo rigido erecto subcorneo flavido breviusculo inclinata, e collo minuto gibboso-ovata brevis cernua coriacea, exannulata, operculo conico rostrato aurantiaco; perist. dentes lati robusti magni purpurei.*

*Dicranum pellucidum* Hdw. Sp. Musc. p. 142. — Brid. I. p. 439. — Br. Europ. Fasc. 37 — 40. p. 16. t. 4. — *Dicr. aquaticum* Ehrh. Dec. No. 216. — *Bryum pellucidum* L. Sp. Pl. p. 1583. — *Br. aquaticum* Hoffm. Fl. Germ. II. n. 35. — Br. palustre, pellucidum, capsulis et foliis brevibus recurvis. Dill. Musc. p. 364. t. 46. f. 23.

*β. fagimontana*; humilis, ramis tenuioribus, foliis brevioribus. Br. Europ. l. c.

*γ. serrata*; foliis crenato-serratis; theca ovali et ovali-oblonga, erecta v. subobliqua, operculo tenuirostro. Br. Europ. l. c. — *Dicr. flavescens* Hook. et Tayl. Musc. Brit. p. 55. t. 17.

*Patria.* In montosis humidis graminosis totius Europae et in America septentrionali. — *Auctumno et primo vere.*

Pl. mascula femineae similis, flore terminali gemmaeo. Folia perig. e basi ovata concava lineari-lanceolata excurrentinervia. Antheridia elongata breviter stipitata, paraphysibus tenuibus cincta.

**18c. A. Hookeri** C. Müll.; *dioica*; laxe cespitosa, apice dichotome ramosa, ramis brevibus, gracilior, e viridi flavescens, inferne radiculosa; folia laxe imbricata *erectopatentia* flexuosa, e basi erecta perfecte vaginante lato-concava elongate amplius areolata subito in subulam lanceolatam plus minus reflexam minute reticulatam igitur obscuram, *ubique laevem integerrimam* producta, nervo subexcurrente; perichaetialia multo longiora et longius tenerius vaginata; theca in pedunculo breviusculo rigido erecto rubro *erecta ovata brevis*; perist. *D. pellucidi*.

*Dicranum vaginatum* Hook. et Wils. in schedulis.

*Patria.* Insula Eremitae ad Cap. Horn: J. D. Hooker.

Ab *A. pellucida* simillima notis datis differt.

18d. **A. vaginata** C. Müll.; laxe cespitosa fusco-tomentosa 2—4 uncialis erecta filiformis flexuosa 2—3-dichotoma; folia caulina lurido-viridia, laxe imbricata, e basi longe vaginante undulatâ subulata, apice parum recurva, vix serrulata, nervo angusto in acumen longum producto; theca in ped. terminali unciali erecta vel parum inclinata, ovata aequalis, longe subulate oblique operculata, calyptra pallide fusca; perist. d. ad medium fissi rubri, marginibus hispidis. †.

*Dicranum vaginatum* Hook. Musc. Exot. t. 141. — Brid. I. p. 465. — *D. Jamesoni* Tayl. in Lond. Journ. of bot. 1847. p. 332. ex obs. Mitteni (l. c. 1851. p. 52.) huc pertinet.

*Patria.* In convallibus Andium Granatensium inter Almaguar et Pasto, alt. 1200—1500 hexap., Humboldt et Bonpland. Prope Quito legit W. Jameson.

18e. **A. clathrata** C. Müll.; caulis gracilis subramosus; folia dissita, e basi quadrata vaginante linearia patula, apice denticulata obtusa, solidinervia; theca in ped. tortili erecta turbinata, operc. longirostro; perist. d. 2—3-fidi clathrati, basi perforati. †.

*Dicranum clathratum* Hook. et Wils. in Lond. Journ. of bot. 1844. p. 542.

*Patria.* Nova Seelandia, in cataractis fluminis Kidi-Kidi: J. D. Hooker.

Ab *A. vaginata* proxima habitu graciliori, foliis e basi latiori subito contractis, apice linearibus dissitis, theca sicca sub ore non coarctata, basi magis angustata, perist. differente, operc. apice longiori graciliori distat.

18f. **A. campylophylla** C. Müll.; caulis cespitosus subbiuncialis superne pallide viridis, ramis subsimplicibus erectis; folia subdistantia, ex oblonga arcte vaginante basi elongate subulata integerrima, nervo tenui percursa, apice flexuoso incurvo valde reflexo elongato, margine apicis parum revoluti, ob cellulas parum prominentes subcrenulato; theca ovata erecta subaequalis apo-

physata, operc. rostrato thecam fere aequante; perist. dentes rubri inaequaliter bifidi. †.

*Dicranum campylophyllum* Tayl. Lond. Journ. of bot. 1848. p. 281.

*Patria.* Monte Pichincha: W. Jameson, 8. Aug. 1847.

*A. vaginatae* auctor comparavit. Huc optime pertinere videtur.

18g. **A. virens** C. Müll.; dense cespitosa sed laxius cohaerens, elongata erecta pluries dichotoma radiculosa; folia caulina erecto-patentia flexuosa, sicca plus minus crispata, e basi *lata longe amplexante* longius tenerius et pellucidius areolata margine valde revoluta sensim lanceolata subcomplicato-carinata, *pachydermia*, nervo crasso *in cuspidem plus minus longam et acutam producta, laevia*, obsolete denticulata, superne minute quadrate areolata; superiora et perichaetialia *e basi erecta plus minus vaginante reflexiuscula, intima perfecte longe vaginantia superne subito fere longe subulata carinata*; theca in pedunculo breviusculo flavido v. rubro cernua, *arcuata subgibboso-ovata, basi compresse strumosa, brevissima ochracea*, operculo conico rostrato obliquo *omnino aurantiaco*; perist. dentes lati robustissimi regulares ad medium fissi *intense purpurei laeves; monoica.*

*Dicranum virens* Hdw. Musc. Frond. III. p. 77. t. 32. — Bryol. Europ. Fasc. 37—40. p. 15. t. 3. a. — *Oncophorus virens* Brid. I. p. 399. — *Bryum virens* Sw. Nov. Act. Ups. IV. p. 241.

*β. compacta*; dense cespitosa, humilior gracilior; folia breviora e basi ovata lanceolata, integerrima v. apice obsolete dentata, inferiora atrata; theca in pedunculo breviora gibba. Br. Europ. l. c. p. 15. — *Dicran. Homanni* Boeck in Hartman. Skand. Fl. ed. 4. p. 384.

*Patria.* In umbrosis humidis ad saxa et ligna putrida, vel in apricis aquosis ad fontium et rivulorum margines per totum jugum alpinum Europae. Var. *β.* secus rivulos. — *Aestate.*

Flos masc. primum terminalis, dein in foliorum comalium axillis minutus paucifolius, foliis obovato-acumi-

natis, intimis enervibus. — Ab *A. strumifera* notis cursive impressis longe distat.

18h. **A. Wahlenbergii** C. Müll.; *monoica*; habitus *A. virentis*, sed *crispatissima*, *gracilior*; folia caulina omnia e basi infima angusta superne sensim valde dilatata convolutaceo-vaginate subito in subulam reflexam elongatam angustissimam acutam producta, leptodermia, margine magis involuta haud revoluta, obsolete denticulata, laevia; perichaetia latius superne imo sinuato-vaginantia; theca brevior.

*Dicranum virens* Wahlenb. Fl. Lapp. p. 338. ex parte. — *Onophorus Wahlenbergii* Brid. I. p. 400. e descr. *Wahlenbergii*. — *Dicr. virens*  $\beta$ . *Wahlenbergii* Br. Europ. Fasc. 37 — 40. p. 15. tab. 3. b. — *D. Richardsoni* Hook. in Drumm. Musc. Amerc. No. 104! — *D. microcarpum* Hook. in Drumm. Musc. Amer. No. 105! forma minor, theca minuta, gracilior, in locis sterilibus tract. Rocky Mount. collecta. — *D. compactum* Flk. in sched.

*Patria.* In turfosis Lapponiae, Labradoris, Americae septentrionalis, e Canada usque ad Rocky Mountains, et in Kamtschatka, unde ex Hb. *Wahlenbergii* a Tilesio lectam habemus. Ex alpibus (Tritalpe) retulit Funk.

Notis cursive impressis ab *A. virente* certe distinctam speciem habemus. Var.  $\gamma$ . *serrata* foliis grosse serratis Br. Europ. verisimiliter quoque huc pertinet.

††. *Humiles.*

23. **A. cylindrica** C. Müll. I. p. 441.

*Patria.* Pyrenaei centr., reg. montosa in rupib. arenaceis fragilibus montis Superbagnères: Spruce.

Gen. VII. **Leptótrichum** Hmp. I. p. 446.

Calyptra dimidiata. Perist. simplicis d. subulati ciliiformes 16 — 32 plus minus conniventes, basi in membrana plus minus exserta positi rubentes.

b. *Folia stricta.*

2. **L. tenue** C. Müll. I. p. 447.

*Coscinodon pullulans* Brid. I. p. 371. — *Grimmia pullulans* Spreng. Pl. min. cogn. Pug. III. p. 94. — Varietas densius areolata. — *Weisia capillacea* Brid. I. p. 359.

3. **L. subulatum** Hmp. I. p. 448.

*Patria.* Pyren. occid., regione infima, ad aggeres arenosos umbrosos circa St. Sever copiose: Spruce, W. P. Sch. Sept. 1847.

4b. **L. nivale** C. Müll.; *dioicum*; gregarie cespitosum pusillum subsimplicissimum virens, lutescens vel inferne nigrescens, julaceum; folia caulina dense appressa stricta, oblongo-lanceolata brevia, nervo profunde carinato fusciscente excurrente, margine integerrimo superne suberecto, cellulis ubique minutis pachydermibus pellucidis quadratis; perich. majora pallide lutescentia, e basi subvaginante elongate laxe reticulata, inferne flavida superne pellucida in subulam brevem obtusiusculam attenuata, integerrima, carinata; theca in ped. brevi carnosio rubente erecta ovalis minuta, late annulata, operc. conico brevi, perist. d. breves angusti ad basin in crura duo tenera rubra fissi sublaeves solitarii.

*Trichostomum glaciale* Schimp. in schedulis. — *Tr. pusillum* ejusd. olim.

*Patria.* Alpes Helvetiae „im Gletschersande des unteren Aar-Gletschers": W. P. Sch. Aug. 1848.

Flos masc. terminalis capituliformis; fol. perig. e basi late ovata concava convolutacea fuscâ sensim in subulam brevem acutiusculam producta, integerrima, inferne pellucide laxe reticulata tenuinervia; antheridia magna clavata, paraph. aureis mixta. — *Angströmia longipedi* habitu maxime simile et pulcherrima species. A *L. subulato* caule julaceo, peristomii fabrica atque operculo jam refugit.

Non satis notum.

4c. **L. glaciale** C. Müll.; caulis ramosus humilis robustiusculus fastigiatis cespitosus, ramis erectis densis firmis; folia dense conferta erecto-patentia, apice incurva, fragilia, e fusco luride viridia, e basi caviusculâ

ovato-lanceolata, nervo crasso longe excurrente pungentia, margine erecto, cellulis minimis subrotundis inferioribus majoribus pellucidis. †.

*Didymodon? glacialis* Hook. et Wils. Fl. Antarct. II. p. 408. t. 152. f. 6.

*Patria.* Insula Cockburn Island nuncupata antarctica, lat. 64° S. 57° W.: J. D. Hooker.

c. *Folia secunda.*

α. *Elata.*

5b. **L. crinale** Mitten (Lond. Journ. of bot. 1851. p. 53!); caulis elongatus flexuosus laxe cespitosus, ramis erectis, pallide viridibus; folia laxe imbricata erecto-patentia, ex oblonga vaginante basi elongate setacea, parum secunda, summo apice dentata, nervo percurrente; theca parum inclinata subaequalis cylindraceo-ovata, annulata, operc. elongate conico; perist. d. filiformes, basi geminati. †.

*Didymodon crinale* Tayl. Lond. Journ. of bot. 1848. p. 280.

*Patria.* Monte Pichincha: W. Jameson, 8. Aug. 1847.

A *L. flexicauli* ex auct. ratione differt: foliis e basi longiore et oblongo-vaginante longius setaceis apice distinctius dentatis, caule superne ramosiore et fol. perig. basi vaginante oblonga apice angulatis.

β. *Pusilla.*

12. **L. homomallum** Hmp. I. p. 453.

*Gymnostomum homomallum* Brid. I. p. 757, e regione Dax Aquitaniae. Theca e spec. auctoris peristomata!

14. **L. dieranoides** C. Müll.; dioicum, gregarium semiunciale simplex dense foliosum; folia breviora, pallide viridia, e basi imbricata latiuscula subito attenuata et breviter lanceolata, apice incurva, subexcurrentinervia; theca in ped. semiunciali pallide rubello obliqua subincurva, ovali-oblonga, exannulata brevicolla, pallide ferruginea, operc. subulato obliquo thecam aequante vel superante; perist. d. subulati, valde hygroskopici, 32 sub-

aequales, solidi, filiformes, quam maxime tuberculosi, intense rufi, siccitate apice subcontorti parum hygroskopici. †.

*Trichostomum dicranoides* Schimp. in litteris.

*Patria.* Mexico, ad Mirador in solo argilloso: Liebmann.

*Angströmiæ variæ* ex auct. simile.

Gen. VIII. **Lophiodon** Hook. et Wils. I. p. 455.

Calyptra cucullata. Perist. simpl. dentes 16 pyramidati, per paria approximati.

Ad *Seligeriam* melius forsân revocetur.

1. **L. strictus** eor. l. c.

Fl. Antarct. I. p. 130. t. 59.

Gen. IX. **Trematodon** Rich. I. p. 456.

Calyptra dimidiata. Perist. nullum vel simplex; dentes 16 basi connati, strigillosi fissiles veluti perforati.

Gen. X. **Symblépharis** Mont. I. p. 460.

Calyptra dimidiata. Perist. simplicis d. 16 per paria approximati, infra orificium oriundi, ad basin infimam subconnati, lanceolati, usque ad basin trabeculatam bifidi, cruribus cohaerentibus.

2. **S. Oerstediana** C. Müll.; *dioica*; cespites latissimi, laxè cohaerentes, plus minus elati, inferne sordide ferruginei, superne sordide lutescentes, rigidi; caulis plus minus elongatus, parce breviter ramosus; folia caulina densissime conferta, maxime tortuosa, *multo majora*, e basi elongata vaginata angusta elongate laxissime reticulata *superne maxime dilatata* in subulam reflexam elongatam, *inferne planam latissimam superne autem sensim angustatam* canaliculatam, nervo excurrente dorso apicis denticulato percursam, ubique e cellulis parvis incrassatis plus minus quadratis areolatam, apice *valde serrulatam*

producta, laevia; perich. caulinis simillima, haud longiora, sed *basi longissima valde convoluta et pedunculum arcte cingente*, laxius reticulatâ; theca in ped. breviusculo solitario erecta, *elongate cylindrica ampliuscula microstoma nitida fuscescens*, basi substrumosa, exannulata, innovando lateralis, operc. conico oblique rostrato; perist. d. *longissimi, robusti, intense purpurei, remote distincte trabeculati*, sedecim bicrures geminati, cruribus *haud cohaerentibus*, uno alterove crassiore.

*Patria.* America centralis, Costa Rica, reg. montosa, inter 5000—8000' elevationis, mens. Febr. et Apr. 1848. legit A. S. Oersted.

A *S. helicophylla* notis cursive impressis optime differt.

**3. S. Chrismari** C. Müll.; *S. helicophyllae* simillima, sed folia angustiora breviora e cellulis *mollibus chlorophyllosis, nunquam incrassatis*, areolata; thecae angustissime cylindricae elongatae erectae *valde falcato-arcuatae*, longe subulate subrecte operculatae, solitariae vel rarius aggregatae, terminales vel innovando laterales, longiuscule pedunculata, basi subinaequales vix strumosae; perist. d. angustissimi, cruribus vix cohaerentibus.

*Patria.* Mexico, prov. Mechoacan, Cerro San Andres: v. Chrismar 1849 m. Martii in ligno putrido formam humilem, prope Jalapam m. Martii formam elatam robustiorem legit.

Theca illi *Mielichhoferiae campylothecae* similis.

## II. *Folia papillosa.*

Trib. XVII. BARTRAMIOIDEAE I. p. 463.

Folii cellulae parenchymaticae quadratae, pro more ad parietes transversales papillis nodulosae vel scabrae, nunquam opacae.



Subtrib. I. MEESEACEAE I. p. 464.

Habitus funarioideus; theca erecta elongata longicolla pyriformis, stomatiis praedita; areolatio folii plerumque laxa laevis.

Gen. I. **Meesea** Hdw.

Calyptra dimidiata. Perist. dupl. d. ext. 16 brevissimi lati obtusi, int. 16 in membrana brevi, longitudinaliter exarati vel fissi et pertusi cartilaginei, ciliis interjectis.

5. **M. vagans** C. Müll. I. p. 467.

*Bryum vagans* Hook. et Wils. Fl. Antarct. II. p. 414. t. 154. f. 1.

*Patria.* In turfosis vulgaris.

Gen. II. **Paludella** Ehrh. I. p. 467.

Calyptra dimidiata. Perist. duplex Pohliae.

Subtrib. II. BARTRAMIACEAE I. p. 469.

Habitus proprius; folia tuberculose papillosa, plerumque dense areolata; theca pro more globosa brevicolla plagiostoma, stomatiis destituta.

Gen. III. **Conostomum** Sw. I. p. 469.

Calyptra dimidiata. Perist. simpl. d. 16 lanceolati, sicci et madefacti erecti, dense et nodoso-articulati, linea media exarati, apice per paria coarctati et in conum clausum obliquum connati, basi spatium aequali infra orificium oriundi.

1. **C. boreale** Sw. I. p. 470.

*Patria.* Pyrenaei, Barranco de San Juan, inter „dem Mulahacen et Velata-Sierra Nevada, 9000' W. P. Sch. sterile legit.

3. **C. Magellanicum** Sulliv. (in Hook. Journ. of bot. 1850. p. 316.); *monoicum*, dense cespitosum; caulis gra-

cilis innovando ramosus, inferne tomentosus; folia sicca et madefacta arctissime incurvo-appressa, quinquefaria *oblongo-ovata obtusa carinato-concava integerrima laevia*, nervo lato *ante apicem evanido*, cellulis *laxe reticulatis*; perich. longius acuminata, excurrentinervia. †.

*Patria.* Ad fretum Magellanicum in Tierra del Fuego: United States Exploring Expedition under the command of Captain Charles Wilkes.

Flores terminales; masculus disciformis, antheridiis numerosissimis, paraph. clavatis; femineus capituliformis, archegoniis gracilibus, paraph. filiformibus. — *A. C. Australi* notis illustratis distinctum.

Gen. IV. **Bartramia** Hdw. I. p. 471.

Calyptra dimidiata. Perist. nullum, simplex vel duplex; externi d. 16 lanceolati trabeculati, linea media exarati, erecti, sicci incurvi, aurantiaci; interni d. tenuiter membranacei lanceolati 16, in membrana 16-plicata positi, secedentes et dein divergentes, ciliis plus minus perfectis interjectis.

Sectio I. **Philonotis** Brid. — Caulis apice fastigiatis veluti verticillatis ramosus; folia erecta lanceolata mollia carinata pellucide areolata.

B. *Graciliores.*

a. *Theca gymnostoma.*

15. **B. pusilla** C. Müll. I. p. 480.

*B. pusilla* Sulliv. in Hook. Journ. of bot. 1850. p. 316. huc certe pertinere videtur notis accuratius designatis sequentibus: dioica, caulis e basi tomentosa prostrata erectus rigidiusculus dendroideo-ramosus, ramis erecto-patentibus strictiusculis, folia caulina ovato-lanceolata appresso-erecta, ramea anguste lanceolata patentia, omnia excurrentinervia cuspidata, margine celluloso-denticulata reflexiuscula, utraque pagina valde papillosa, opaca viridi-glaucescencia minute quadrato-areolata; flos masculus terminalis disciformis, fol. perig. obtusiusculis evanidinerviis, antheridiis numerosissimis elongatis, paraphys. longioribus clavatis; fructus auctori ignotus.

*Patria.* Ad fretum Magellanicum in Tierra del Fuego: United States Exploring Expedition, under the command of Cap. Ch. Wilkes.

b. *Theca peristomata.*

17. **B. sphaericarpa** Schw. I. p. 481.

*Patria.* America centralis, Costa Rica, inter 5000—8000' elev., m. Febr. et Apr. 1847: A. S. Oersted. Venezuela, Galipan ad aqueductum, alt. 6000 pedum: Wagner m. Aug. 1849. copiose legit.

Sectio II. **Plicatella** C. Müll. — Caulis vage et apice fasciculatim ramosus; folia e basi erecta reflexa, anguste elongate basi utrinque ad marginem amplius areolata, longitudinaliter plicata.

a. *Brevipedunculatae.*

26b. **B. subarcuata** C. Müll.; dioica, *B. arcuatae* simillima, sed folia basi haud vaginantia, ovato-lanceolata, minus distincte plicata, denticulis marginalibus minoribus, dorso minutius tuberculatis; theca in ped. subarcuato estriata, tenuiter membranacea, siccitate rugosa, pallide ferruginea. †.

*Breutelia subarcuata* Schimp. in litteris.

*Patria.* Mexico, Pico de Orizaba, alt. 11000 ped.: Liebmann.

*Obscuriores.*

1. **Hypnum consimile** Hook. et Wils. I. p. 492.

Fl. Antarct. I. p. 137. t. 60!

Sectio III. **Vaginella** C. Müll. — Caulis dichotome divisus; folia e basi vaginata laxe reticulata erecta subito reflexa minute reticulata.

a. *Longipedunculatae.*

34b. **B. Schimperii** C. Müll.; hermaphrodita, ramis haud tomentosus; folia conferta, patentia et erecto-patentia, siccitate incumbentia subtortilia, e basi semivaginate lineali-subulata, stricta, planiuscula, margine argute serrata, nervo valido excurrente mucronata, utraque pagina tuberculosa; theca subcernua subglobosa striata, sicca costata, operc. mammillari; perist. duplicis d. ext.

integri vel medio hiantes, apice fissi, int. rudimentarii, membrana angusta emarginata pallide lutea. †.

*B. brevifolia* Schimp. in litteris.

*Patria.* Mexico, Pico de Orizaba, alt. 12000': Liebmann.

Locum ex auctore tenet inter *B. strictam* et *ithyphyllam*. A congeneribus omnibus perist. interno imperfecto jam refugit.

36 b. **B. Costaricensis** C. Müll.; *hermaphrodita*; *B. patenti* simillima, sed folia *multo breviora, sicca parum crispata*, e basi laxe elongate reticulata pellucida tenera *angusta* longa apice rotundatâ subito in subulam canaliculatam *maxime opacam, margine revoluta et dorso maxime scaberrimam*, serrulatam producta, nervo carinato excurrente subulam superiorem totam percurrente; perich. magis erecta; theca in ped. longiusculo *innovationes autem vix superante laterali* inclinata turgide globosa *valde plicato-corrugata, minutius reticulata*.

*Patria.* America centralis, Costa Rica, in reg. montosa inter 5000—8000 ped. elevationis, inter *Dicrana* ab A. S. Oersted 1848 mens. Febr. lecta specimen legimus.

36 c. **B. flavicans** Mitten (Lond. Journ. of bot. 1851. p. 55!); *hermaphrodita*, laxe cespitosa, ramosa, ramis strictis dichotomis viridibus et flavescentibus; folia caulina erecto-patentia, madefacta stricta, sicca appressa, e basi subquadrata laxa superne dilatata erecta subito in subulam lanceolatam reflexiusculam minute areolatam chlorophyllosam producta, margine minute serrulato, dorso papillis minutis aspero, nervo lato subulam superiorem totam fere occupante; perich. basi latiora laxius reticulata; theca in ped. elongato rubro globosa sulcata microstoma aurantiaca, operc. convexo-conico; perist. simplex externum. †.

*Patria.* Prope Quito: W. Jameson.

Habitu *B. pomiformis*, sed *B. ithyphyllae*, *patenti* et *robustae* affinior, differt autem ab omnibus hisce conge-

neribus foliis brevioribus; a *B. patente* et *ithyphylla* perist. simplici, a *B. robusta* inflorescentia jam distat. Colore partium fere omnium primo adpectu distinguenda.

Non satis notae.

38. **B. robusta** Hook. et Wils. I. p. 495. — Dioica; theca in ped. breviusculo erecta globosa majuscula, siccitate sulcata (gymnostoma?), operc. breviter conico-rostellato subobliquo luteo.

Fl. Antarct. I. p. 133. t. 59.

*Patria.* Insula Campbelli: J. D. Hooker.

b. *Brevipedunculatae.*

44. **B. brevifolia** Brid. II. p. 737!

*B. Mülleri* Mont. in C. Müll. Syn. I. p. 498!

Sectio IV. **Eubartramia** C. Müll. — Caulis dichotome divisus; folia stricta erecta, nec vaginata nec plicata, minute areolata.

A. *Crispatae.*

a. *Longipedunculatae.*

45 b. **B. campylopus** Schimp. (in litteris!); folia e basi lanceolata longe aristata; perich. longissima; omnia scabra, margine serrata; theca in ped. arcuato subglobosa; caetera *B. pomiformis*.

*Patria.* Mexico, Pico de Orizaba, alt. 12000': Liebmann.

Habitus *B. pomiformis* var. *crispae*, sed pedunculo arcuato primo intuitu distinguenda, medium inter *B. pomiformem* et *Hallerianam* tenens.

b. *Brevipedunculatae.*

46. **B. Jamesoni** Tayl. I. p. 500.

Mentiente Mittenio ad *B. viridissimam* pertinet, quod non credimus!

Sectio V. **Oreadella** C. Müll. — Caulis fastigiatis divisus; folia lanceolata complicato-carinata, margine maxime revoluta weissioidea, quadrate areolata, sublaevia.

Gen. V. **Oreás** Brid. I. p. 509.

Calyptra cucullata. Perist. simpl. d. 16 late lanceolati, linea media carentes, intus lamellato-articulati, tenues plani laevissimi.

Gen. VI. **Catoscopium** Brid. I. p. 510.

Calyptra cucullata. Perist. simpl. d. 16 brevissimi truncato-lanceolati irregulares transversim articulati, linea media exarati, albidi rugulosi rigidi suberecti.

Trib. XVIII. **POTTIOIDEAE**. I. p. 512.

Folii cellulae parenchymaticae quadratae, supra basin papillis pro more undique obtectae et basi pelliculae laeves.

Subtrib. I. **CALYMPERACEAE**. I. p. 512.

Cellulae folii basilares rigidae hyalinae saepe fragilissimae inanes foraminatae.

Gen. I. **Encalypta** Schreb. I. p. 513.

Calyptra longe campanulata. Perist. nullum simplex vel duplex; externi dentes 16 lanceolati vel ciliiformes, linea media exarati, rubentes; internum: membrana in cilia 16 producta.

Sectio I. **Psilotheca** C. I. p. 513. — Theca estriata.

Sectio II. **Rhabdotheca** C. Müll. I. p. 519. — Theca sulcata.

Gen. II. **Calymperes** Sw. I. p. 523.

Calyptra thecam totam includens, latere fissa, persistens plicata, dimidiata. Perist. nullum.

Sectio I. **Hyophilina** C. Müll. I. p. 523. — Folia late convoluta, marginibus involutis, validinervia.

3. **C. Richardi** C. Müll. I. p. 524.

*Patria.* Costa Rica, reg. montosa, elev. inter 5000 — 8000 ped., Febr., Apr. c. fruct.: A. S. Oersted.

Sectio II. **Eucalymperes** C. Müll. I. p. 526. — Folia plus minus plana loriformia, carinatinervia.

Gen. III. **Syrrhópodon** Schw. I. p. 528.

Calyptra cucullata glabra. Perist. simpl. d. 16 lanceolati integri; duplex tantum in unica specie: membrana carinato-plicata in dentes lineares conniventes fissa.

Sectio I. **Hyophilidium** C. Müll. I. p. 528. — Folia reflexa, basi vaginata, margine involuta, crispata, rigida, crassinervia.

Sectio II. **Orthophyllum** C. Müll. I. p. 532. — Folia erecta stricta, basi longissima pellucida amplexante, lanceolata, superne minute areolata.

Sectio III. **Orthotheca** Brid. I. p. 534. — Folia rigida, basi vaginata, loriformia, reflexa, margine nec involuta, difficile emollientia.

Sectio IV. **Eusyrrhopodon** C. Müll. I. p. 540. — Folia mollia, basi vaginata, reflexa, canaliculata, facile emollientia.

Subtrib. II. POTTIACEAE. I. p. 546.

Cellulae folii basilares molles pellucidae longiores, plerumque inanes, raro utriculo primordiali instructae.

Gen. IV. **Pottia** Ehrh. I. p. 546.

Calyptra dimidiata. Perist. nullum vel simplex: dentes lanceolati articulati simplices, seu linea longitudinali exarati rugulosi carnosi.

Sectio I. **Anacalypta** Röhl. I. p. 547. — Folia latiuscula plus minus spathulata, concava, vel planiuscula; theca peristomata.

2. **P. cespitosa** C. Müll. I. p. 548.

*Patria.* In rupib. calcareis prope Freiburg ad flum. Unstrut, „am Schlifter”: Garcke 1850.

Sectio II. **Eupottia** C. Müll. I. p. 550. — Folia praecedentis; theca gymnostoma.

11b. **P. crinita** Wils. (Bryol. Europ. Fasc. 42. Suppl. c. tab.); habitus, flores et foliorum dispositio octofaria *P. Wilsoni*, sed folia *spathulata obtusissima*, nervo valido in pilum viridulum excedente, calyptra *laevi*, theca brevior, *ore latiore*, pedunculo superne sinistrorsum, inferne dextrorsum torto. †.

*Patria.* In terra humoso-arenosa ad littus Scoticum prope Aberdeen: W. Wilson auctumno 1843 et vere 1844; ad littus Cornvallense: Ralfs.

Species non satis notae.

**Gymnostomum Combae** De Not. (Syllab. p. 286.); caulis breviusculus erectus subsimplex undique foliosus; folia arcte imbricata, late spathulata, apice rotundata, plana, integerrima, nervo excedente breviter mucronata; theca oblonga erecta, basi subattenuata, operc. conico obtusiusculo subincurvo, dimidio breviori. †.

*Patria.* In Sardiniae septentrionalis montanis circa Tempio: Comba.

*P. minutulae* affinis species videtur.

Sectio III. **Hyophila** Brid. I. p. 558. — Theca gymnostoma vel peristomata; folia lata, marginibus involutis plus minus convolutacea.

A. *Acaules.*

19b. **P. Oerstediana** C. Müll.; *dioica*; caulis subsimplex humilis; folia caulina inferne ferruginea, superne viridissima, *valde involuta*, madore parum involuta, e basi angustiore brevi laxe reticulata pellucidâ latiuscule subspathulate oblonga, obtusa, sed nervo ferrugineo excedente *in apiculum brevissimum producta*, *mucronata*, *integerrima*, e cellulis *minutiusculis* amoene viridibus laeviusculis parum opacis areolata, tenera; perich. *unicum minutum obtusissimum*, *nervo obsoleto evanido*; theca in ped. breviusculo flavo *erecta* minuta cylindrica angustissima, brunnea, orificio minutissimo, operc. longe aciculari obliquiusculo, annulo sublato, perist. nullo.



*Patria.* America centralis, Realejo in Nicaragua, mens. Dec. et Januar 1846—7: A. S. Oersted.

A *P. Barbula* notis explicatis certe distinguitur.

B. *Caulescentes.*

a. *Folia integerrima.*

27 b. **P. Wagneri** C. Müll.; erecta laxe cespitosa parce dichotoma rigidissima, folia tortilia anguste lanceolata, obtusiuscule acuminata, nervo crassiusculo viridi in mucronem *reflexiusculum brevem* excedente, *vix convoluta*, basi infima pellucide quadrate tenuiter superne sensim minute areolata, viridissima; perich. *conformia* longiora, basi longius, laxius et pellucidius reticulata; theca in ped. flavido *longiusculo strictiusculo cylindraceo-elliptica angusta, angustissime annulata, peristomata*, operc. longe recte subulato, dentibus densissime approximatis angustis irregulariter linea longitudinali exaratis obsolete articulatis pallidis carnosulis sublaevibus.

*Patria.* Columbia, Cumbre de Caracas: Wagner, hortulanus Halensis in alt. 3000' 1848 legit.

A *P. Zeyheri* simili notis illustratis facile differt.

b. *Folia dentata.*

30 b. **P. contermina** C. Müll.; *dioica*; caulescens subsimplex sordide viridis; folia *patulo-cirrhata, sed nunquam circinnato-tortilia*, e basi brevi laxius reticulata firmiuscula fusciculâ late convoluto-oblonga obtusate et breviter acuminata, superne minute areolata subopaca, viridissima, superne remote dentata, *haud undulata*, nervo crasso in acumen *subexcurrente* ferrugineo; perich. *exteriora caulinis simillima*, intimum unicum minutum obtusissimum *integerrimum*, laxius reticulatum obsolete nerve; theca in ped. longiusculo inferne rubro erecta, *strictissime cylindrica*, basi toto ambitu subapophysata, latiuscule annulata, operc. subulato obliquo longiusculo; perist. nullum.

*Patria.* America centralis, Costa Rica, Aguacate alt. 1500' mens. Novbr. 1847: A. S. Oersted.

A *P. Pöppigiana* characteribus cursive impressis differt.

Incertae sedis.

**Gymnostomum Jamesoni** Tayl. (Lond. Journ. of bot. 1848. p. 279.); monoicum; caulis cespitosus erectus subsimplex luteo-viridis subbiuncialis; folia arcte imbricata concava erecta, ovato-lanceolata, marginata subdenticulata, nervo excurrente, margine incurvo; perich. similia; theca in ped. caule duplo longiori erecta, ex strumosa angusta basi cylindrica laevis, operc. longius tenuirostro; peristomium nullum v. membrana brevissime emersa; calyptra opaca brunnea dimidiata (?). †.

*Patria.* Monte Pichincha, ad nives aeternas: W. Jameson, 5. Julio 1847.

Auctor c. *Voitia* comparavit et muscum maxime solitarium declaravit, quare dubie huc revocavimus.

Sectio IV. **Hymenostylium** Brid. I. p. 562. — Folia angusta lanceolata carinata, margine erecto vel revoluto; theca gymnostoma.

**32. P. Kunzeana** C. Müll.

*P. longirostris* C. Müll. I. p. 562, ob nomen jam usum deleatur!

Gen. V. **Schistidium** Brid. I. p. 565.

Calyptra mitraeformis. Perist. nullum.

**2. Sch. marginatum** Hook. et Wils. l. c.

Fl. Antarct. II. p. 399. t. 151. f. 6.

*Patria.* Ad rupes humidias, alt. 500 pedum, haud infrequens.

Gen. VI. **Trichostomum** Hdw. I. p. 567.

Calyptra dimidiata. Perist. simpl. d. sedecim usque ad basin in cilia duo filiformia haud tortuosa fissi.

Sectio I. **Pycnophyllum** C. Müll. I. p. 567. — Folia angusta stricta vel crispula carinato-concava, ubique e cellulis minutis areolata erecta, basi amplexantia nec vaginantia.

**9. Tr. tophaceum** Brid. I. p. 573.

*Patria.* In Pyren. centr. ad mortarium in muris subhumidis pagi Loucrup, non longe a Bagnères de Bigorre: Spruce; Pyr. or. ad St. Antoine de Galamus cum *Barbula marginata*, nec non prope turrin nomine La Massane insignitam: Montagne.

11. **Tr. trifarium** Sm. I. p. 574.

*Patria.* Pyren. occ., in calcareis subhumidis pr. Pau: Spruce; pr. Burdigalam: Grateloup.

Non satis notum.

1. **Tr. Anomodon** Bals. et De Not. (Syllab. Musc. p. 191.); caulis breviusculus simplex erectus vel ascendens vix radiculiger; folia subpapillosa, saturate viridia, inferiora remota, suprema arcte imbricata, e basi subappressa latiuscula patentissima, lanceolato-subulata acuta carinata, margine revoluta, superne denticulata, nervo subexcurrente valido; perich. conformia, sicca cirrhato-contorta; theca oblonga erecta, operc. conico attenuato, obtusiusculo, dimidio breviori. †.

*Didymodon Anomodon* Bals. et De Not. Pugill. No. 10.

*Patria.* Ad margines viarum prope Neapolim: Balsamo.

A *Tr. crispulo* ex auctore differt: foliis lanceolato-subulatis, theca oblonga et peristomio.

Sectio II. **Leptodontium** Hmp. I. p. 577. — Folia squaroso-reflexa, complicato-concava, flexuosa, basi vaginante cellulis inanibus longius laxioribus, superne chlorophyllose quadrato-areolata.

A. *Pusilla.*

15. **Tr. flexifolium** Sm. I. p. 577.

*Zygotrichia cylindrica* Tayl. in Mackay. Fl. Hib. II. p. 26.

B. *Elata.*

16b. **Tr. subalpinum** De Not. (Syllab. Musc. p. 184.); caulis *elongatus* ascendens simplex, inferne denudatus, tandem innovando ramo uno alterove auctus; folia in sicco passim fusca, madore flavicantia, punctato-areolata, conferta, e basi amplectante patienti-recurva, ob-

*longo-linearia, obtusiuscula, canaliculata, marginibus inferne recurvis, fortiter serratis, nervo apicem subattinente valido praedita, sicca tortilia; perich. conformia; theca in ped. longiusculo laete purpureo erecta angusta teres, lenissime curvula, operc. conico acuto multoties breviori; perist. d. 32 per paria approximati filiformi-nodulosi, ad apicem usque liberi, in uno alterove pari, trabeculis ope hinc inde connati. †.*

*Patria.* Secus amnem infra Lanzo in Pedemontio Italiae: Lisa aestate 1837.

Ex auctore *Tr. flexifolio* simile, sed notis laudatis distans. — *Leptodontium* distinctum videtur.

17b. *Tr. sulphureum* C. Müll.; *dioicum*; cespites latissimi rigidi elati *sulphurei*, laxe cohaerentes; caulis tomento fusco inter folia ad apicem usque fere obtectus, flexuosus, parce breviter ramosus, gracilis, *ubique sulphureus*; folia caulina *Tr. ulocalycis*, sed basi brevissimâ laxius reticulata fuscidule striata; perich. *Tr. ulocalycis*, sed *basi e cellulis laxis elongatis haud interruptis reticulata*; theca in ped. brevi flexuoso flavo erecta solitaria *cylindracea arcuata, apicem versus angustata, microstoma*, basi aequalis, pallida, dein fusca, ore purpurea, operc. oblique subulato longiusculo; perist. d. brevissimi, infra orificium oriundi, angustissimi, irregulariter ad basin bifidi, laeves, aurantiaci, remote articulati.

*Patria.* America centralis, Nicaragua in monte vulcanico Viego, alt. 5000 pedum: A. S. Oersted m. Febr. 1847 legit.

A *Tr. ulocalyce* notis illustratis differt, e thecae forma *Tr. aggregato* simile. — Flos masc. lateralis, solitarius, turgide gemmaceus, foliis latissime rotundato-ovatis, brevissime acuminatis, apice vix reflexis, basi laxe reticulatis, integerrimis; antheridiis maxime clavatis arcuatis, paraphysibus aureis multis angustissimis acutis. Parcissime fructificans.

18b. *Tr. subdenticulatum* C. Müll.; *dioicum*; *Tr. epunctato* simillimum, sed statura multo robustior, folia

caulina et perich. majora, superne *minute aequaliter denticulata*, nec inaequaliter eroso-serrata; theca in ped. *elongato* flavido erecta, *ampliuscule cylindrico-oblonga robusta*, superne *attenuata subarcuata*, ochracea, dein fuscescens, annulata, *microstoma*, operc. e basi depresso-conica oblique rostrato; perist. d. longe infra orificium oriundi, 2—3-fidi, longiusculi, fragiles, articulati, luteo-fusci, cruribus cohaerentibus laevibus.

*Trichostomum squarrosum* Al. Braun. Hb.

*Patria.* Java: Blume.

A *Tr. squarroso* reticulatione folii densa et pedunculo elongato primo momento distinguitur.

Sectio III. **Eutrichostomum** C. Müll. I. p. 581. — Folia carinato-concava erecta inflexo-tortilia, basi vaginaute pellucide laxe reticulata calymperoidea, superne opaca, angusta.

#### B. *Inflorescentia monoica.*

23b. **Tr. densifolium** Mitten (Lond. Journ. of bot. 1851. p. 53!); monoicum, dense cespitosum albido-tomentosum luteum inferne fuscescens; folia patenti-recurva tortilia squarrosa, late lanceolata, nervo sub apice evanido, margine e basi ad medium usque reflexo, apicem versus serrulata, basi e cellulis elongatis angustis firmis flavidis superne minutissime rotundatis areolata, minute et densissime papillosa; perich. longissime convoluta; theca in ped. flavo torto cylindracea leviter curvula brunnea, operc. stricto dimidio breviori; perist. d. breviusculi aurantiaci; calyptra straminea. †.

*Patria.* Prope Quito: W. Jameson.

Habitu *Barbulae calycinae* et *Trich. Barbulae*; auctor cum *Tr. luteo* Tayl. (*Tr. ulocalyce* nob.) quoque comparavit.

#### C. *Inflorescentia dioica.*

##### a. *Robustiora.*

29. **Tr. cylindricum** C. Müll. I. p. 586.

*Weisia tenuirostris* Hook. et Tayl. in Mackay. Fl. Hib. II. p. 14.

*Patria.* Pyren. occid., reg. subalpina, in saxis rivulorum supra thermas dictas „les Eaux Bonnes”; Pyr. centr., in vicinia Bagnères de Luchon, frequens, locis Superbagnères, Lac de Séculéjo, Cascade du Coeur etc.: Spruce.

29b. **Tr. Bombayense** C. Müll.; *dioicum*; *Tr. cylindrico* simillimum, sed caulis inferne gracilis apice distincte comosus; folia latiora, plerumque nervo excurrente, obtusiuscule acuta minus carinata; theca *siccitate parum arcuata*, late annulata; perist. d. e basi brevi anguste lanceolata tenera trabeculata laevi in crura duo vel tria brevissima pallida subrugulosa leviter et remote articulata fissi.

*Patria.* India orientalis, Bombay, inter *Neckeram procumbentem et angustam* comm. Kegel ex horto dom. Van Houtte.

29c. **Tr. aeneum** C. Müll.; habitus, forma, directio et color foliorum *Tr. rubelli*, distinctum tamen: inflorescentia dioica, theca longiore molli tenuiter membranacea, annulo latiore, perist. tenuiori, membrana basilari latiore. †.

*Didymodon aeneus* Schimp. in litteris.

*Patria.* Mexico, in latere Pic. de Orizaba: Liebmann.

Folia pro more solidiora evadunt quam in *Tr. rubello*, minus acuta et saepius obtusiuscula, in apiculum brevem producta, apice denticulata, ad summam extremitatem marginibus revoluta, sicca contorta.

29d. **Tr. campylocarpum** C. Müll.; *dioicum*; caulis cespitosus humilis subsimplex *rufescens*; folia crispula, madore patentia inferiora, minuta, superiora et perichae-tialia longiora et longius vaginantia, omnia e basi vaginata laxissime reticulata maxime pellucida tenerâ linearilanceolata acuminata, *apice hic illic eroso-dentata*, carinato-concava, margine erecta, excurrentinervia, e cellulis minutis valde opacis areolata; theca in ped. longiusculo purpureo tenuissimo laevi subito *cylindraceo-oblonga*, *angusta*, *arcuata*, *inclinata*, intense rufa, operc. conico su-

bulato subobliquo, breviusculo, annulo nullo; perist. d. subulati rufi opaci maxime scabri.

*Trich. inclinatum* Schimp. in litteris?

*Patria.* America centralis, Costa Rica, in regione montosa inter 5000 — 8000' elevat., mens. Febr. 1847: A. S. Oersted. E regno Mexicano, a Liebmann collectam suam speciem Schimper habuit.

*Tr. rubello* habitu et colore affinissimum, sed ab illo ceterisque congeneribus characteribus explicatis distinctissimum.

Sectio IV. **Desmatodon** Brid. I. p. 588. — Folia lata plus minus plana et ovata, ubique e cellulis hexagonis ampliuseulis chlorophyllosis basi plus minus pellucidis areolata, cymbiformi-concava vel plus minus carinata.

A. *Theca erecta.*

a. *Inflorescentia monoica.*

35. **Tr. convolutum** Brid. I. p. 590.

*Patria.* Regione montosa Pyr. centr. in rupib. argillaceo-schistosis subdecompositis pr. pagum Loucrup circa Bagnères de Bigorre; Philippe; Pyr. or. ad viam quae ducit a Seo d'Urgel ad Andorram: Arnott; apud Concampa et ad Pla de Sorroco pr. Prats de Mollo: Montagne.

36. **Tr. havicans** C. Müll. I. p. 591.

*Patria.* Ex Columbus Ohionis copiose misit Sullivant formam theca longiore cylindracea, parum curvula erecta.

B. *Theca obliqua vel nutans.*

40. **Tr. obliquum** C. Müll. I. p. 594.

*Patria.* Alpes Algovicae Bavariae loco Stuibengipfel 5431' alt.: Sendtner 30. Jun. 1849.

Gen. VII. **Barbula** Hdw. I. p. 595.

Calyptra dimidiata. Perist. simpl. dentes 32 ciliati contorti. Operculi cellulae contortae.

Sectio I. **Aloina** C. Müll. I. p. 596. — Folia ad nervum lamellata, basi vaginantia, margine involuta, tortilia, viridissima, opaca.

Sectio II. **Argyrobarbula** C. Müll. I. p. 597. — Folia ad nervum lamellata, basi amplexantia nec vaginata, margine erecto vel revoluto nec involuto, lato-ovata, chlorophyllo superne saepius destituta.

7. **B. papillosa** Wils. I. p. 598.

*Patria.* Regione montosa Pyren. occid. in arboribus nemoris Parc de Pau dicti: Spruce.

Sectio III. **Tortella** C. Müll. I. p. 599. — Folia cirrhata rigida opaca minute areolata, basi vaginantia plus minus albida tenera, margine erecto plus minusve involuto, rarius revoluto, carinata, elamellosa.

Sectio IV. **Hyophiladelphus** C. Müll. I. p. 604. — Folia involuta elamellosa, spathulato-ovata, basi amplexantia nec vaginantia, parum opaca.

Sectio V. **Senophyllum** C. Müll. I. p. 606. — Folia plus minus torta, angusta, elamellosa, plerumque lanceolata, carinata, superne minute et rotundate areolata, saepe opaca, margine revoluto v. erecto.

A. *Folia margine erecto.*

20. **B. erythrodonta** Tayl. I. p. 606.

*Streptopogon erythrodontus* Wils. n. gen. ex Mitten in Lond. Journ. of bot. 1851. p. 51. Calyptra *mitraeformis* superne scabra; perist. simplex ciliiforme, cilia 32 aequidistantia, in ciliola duo postice fissa, laevia, in spiram unam dextrorsum contorta, basi in membranam angustam coadunata; cellulae operculi contortae. — Calyptra revera campanulata latere nunquam fissa?

B. *Folia margine revoluto.*

a. *Folia stricta.*

34. **B. icmadophila** Schimp. I. p. 614.

Br. Europ. Fasc. 43. Suppl. II. — cum tab. — Mense Augusti. —

b. *Folia recurva.*

41. **B. Crügeri** Sond. I. p. 618.

*Patria.* Columbia, Cumbre de Caracas: Wagner 1848.

48b. **B. elongata** Wils. (Mitten in Lond. Journ. of bot. 1851. p. 51!); dioica, *elongata* parce dichotome ra-



mosa viridis, dein rufescens; folia caulina siccitate torta, madefacta patula, e basi erectâ elongata dense reticulata lanceolata acuminata, *apice obtusiuscula*, excurrentinervia, margine reflexa *apicem versus inaequaliter repando-ser-rulata*, e cellulis minutis fere laevibus chlorophyllosis areolata; perich. erecta longiora, e basi convoluta flavida; theca in ped. *longo rubro elongate cylindrica curvula*, operc. subulato; perist. in membrana breviuscula circiter bis contortum. †.

*Patria.* Prope Quito: W. Jameson.

Characteribus laudatis a *B. campylocarpa* distare videtur.

Sectio VI. **Eubarbula** C. Müll. I. p. 623. — Folia late spatulato-ovata, basi amplexantia, elamellosa, margine erecta vel revoluta, basi e cellulis magis flaccidis mollibus reticulata; plantae humiles parum dichotomae.

A. *Margine revoluta.*

53. **B. mucronifolia** Schw. I. p. 624.

*B. hyperborea* Brid. I. p. 583 ex insula Melville huc?

54. **B. canescens** Montagne (primus in Arch. de Bot. I. p. 133! non Bruch!).

B. *Margine erecto.*

a. *Folia immarginata.*

61 b. **B. denticulata** Wils. (Lond. Journ. of bot. 1851. p. 50, ex Mitteni diagnosi!); dioica, cespitosa humilis subsimplex; folia remota spatulata acuminata, nervo in mucronem brevem excurrente, *margine e medio ad apicem denticulato*, textura tenera molli, basi cellulis *elongatis laxis maxime pellucidis*, superne minoribus, *chlorophyllo fere destitutis*; theca in ped. longo rubro torto cylindrica fusca, operc. oblique longe conico, thecam dimidiam aequante, annulo simplici persistente; perist. fere ad medium tubulosum aurantiacum. †.

*Patria.* Peru, in vicinia urbis Quito: W. Jameson.

Ex obs. Mitteni notis designatis a *B. cuneifolia* proxima differt.

b. *Folia marginata.*

63. **B. marginata** Br. et Sch. I. p. 629.

*Patria.* Regione montosa Pyr. occ. in muris prope Caunterets: Spruce.

66. **B. densifolia** Hook. et Wils. I. p. 631.

Fl. Antarct. II. p. 409. t. 153. f. 1.

Sectio VII. **Syntrichia** Web. et Mohr. I. p. 632. — Habitus praecedentis, sed multo elatior robustior; folia basi e cellulis magis hyalinis calymperoideis instructa vaginante reflexa.

73. **B. robusta** Hook. et Gr. I. p. 635.

Fl. Antarct. II. p. 409. t. 153. f. 2.

75b. **B. aculeata** Wils. (Mitten in Lond. Journ. of bot. 1851. p. 51!); dioica? elata parce ramosa, sordide virens, inferne rufescens; folia imbricato-patentia recurvave, lanceolata longe acuminata, apicem versus serrata, nervo rubro, acumine undulato pallido desinente, thecae in ped. saepius geminatis breviusculis cylindricae; perist. basi in membranam angustam breviusculam unitum, breve pallidum. †.

*Patria.* Prope Quito: W. Jameson.

Inter *B. robustam* et *serrulatam* sedem tenere legitur.

## Non satis notae.

1. **Tortula rotundifolia** Hartm. (Skand. Fl. Ed. V. p. 381.); folia concava rotundata, basi lata contracta, rotundato-obtusa, nervo in mucronem brevem laevem apice pellucidum excurrente. †.

*Patria.* In truncis arborum Scaniae prope Lund, in truncis Fraxini, *Barb. laevipilae* intermixta: Borgström.

Muscus 2 — 3 lin. altus; folia e basi lata subquadrata in laminam subrotundam basi duplo latiore et longiorem apiceque capillari 8 — 10-ies longiorem dilatata, cellulis magnis rotundis viridibus valde pellucidis. — An *B. latifoliae* varietas?

Gen. VIII. **Ceratodon** Brid. I. p. 645.

Calyptra dimidiata. Perist. simpl. d. 16, basi membrana cellulosa connati, in crura duo longa nodoso-articulata fusca utrinque pallida fissi, parte inferiore dense trabeculati.

1. **C. purpureus** Brid. I. p. 646.

*C. Corsicus* Br. Europ. Fasc. 43. t. Suppl. 1, foliis caulinis longioribus angustioribus, perich. latis subito in acumen breve attenuatis, theca graciliore dentibusque pallidioribus grossius rugulosis. Prope Ajaccio Corsicae insulae: Requien 1849.

Gen. IX. **Tridontium** Hook. fil. I. p. 648.

Calyptra conica, latere fissa. Perist. simpl. d. 16 elongati, siccitate reflexi, e ciliis 3 articulatis magis minusve connexis formati.

Gen. X. **Weisia** Hdw. I. p. 648.

Calyptra dimidiata. Perist. simpl. d. 16 lanceolati integri v. cribrosi; saepius nullum.

Sectio I. **Rhabdoweisia** Br. Europ. I. p. 649. — Theca sulcato-striata; perist. d. subulati; folia crispata.

Sectio II. **Euweisia** C. Müll. I. p. 651. — Theca laevis peristomata v. nuda, dentibus lanceolatis saepe pertusis; folia crispata interdum rigida.

7. **W. Wimmeriana** Br. et Sch. I. p. 653; androgyna vel hermaphrodita.

*Hymenostomum murale* Spruce in Musc. Pyr. n. 236 ex Spruce!

*Patria.* Austria, in cacumine montis „der hohe Blassen“ dicti prope Hallstadt: Papperitz 1841. 5. Jul.; Pyrenaei occid., reg. montosa in arenosis circa Pau et Oloron et in muris prope Ste. Marie d'Oloron: Spruce.

Sectio III. **Hymenostomum** R. Br. I. p. 660. — Habitus praecedentis, sed thecae orificium columella apice dilatata clausum.

a. *Folia patula.*

20b. **W. senocarpa** C. Müll.; *dioica*; cespites humiles densiusculi viridissimi; caulis ascendens parce ramosus

tenellus, madore ob folia valde patula crassiusculus; folia caulina siccitate crispata, madore stricta, parum curvata, e basi oblonga, e cellulis laxioribus elongatis pelucidis parenchymaticis reticulatâ, anguste lanceolato-acuminata, nervo excurrente mucronata, minute quadrate areolata, opaca, margine integerrimo distincte involuto; perich. longiora basi laxius reticulata; theca in ped. elongato laevi flavido erecta, *anguste cylindrica vix obliquiuscula*, pallida, late annulata, ore latiori purpureo, operc. oblique aciculari; *columella parum dilatata*; calyptra pallidissima glabra angustissima.

*Patria.* America centralis, Costa Rica, reg. montosa, inter 5000—8000 ped. elevationis, mens. Martii 1848. legit A. S. Oersted.

A *W. microstoma* notis declaratis habituque robustiore altiore longe distat. Habitu *W. tortili* magis similis, sed thecae forma primo visu distinguitur.

b. *Folia squarroso-reflexa.*

22b. *W. phascoides* C. Müll.; monoica, *W. squarrosae* proxima, distincta: foliis angustioribus, perich. longioribus, theca brevius pedunculata vix emergente, operculo orificium arctius adhaerente, sporis minoribus, flore masculo terminali monophyllo, paraphysibus multo longioribus. †.

*Hymenostomum phascoides* Wils. in Bryol. Europ. Fasc. 42. Suppl. I. c. tab.!

*Patria.* In terra arenaceo-humosa et subargillosa prope Mere comit. Cheshire: W. Wilson 1834; ad margines piscinae exsiccatae prope Hustpierpoint com. Sussex: Mitten 1847. — *Septembri.*

Non satis notae.

1. *Hymenostomum planifolium* Sendtn. (in Regensb. Denkschrift. 1841. p. 143.); caulis humilis simplex erectus; folia inferiora breviora, conferta, superiora recurva, siccitate crispata, linearia, acuta, nonnunquam mucronata, integerrima, obsolete canaliculata, subplana, marginibus

non involuta, obscure viridia, areolatione tenera e cellulis oblongo-rectangularibus texta, nervo excurrente; perich. 2—3 multo longiora, pedunculum aequantia, lineari-subulata, canaliculata, basi amplexente erecta, apicem versus recurvata; theca in ped. erecto solitario bilineari virenti-lutescente pallido in thecam incrassato ovalis vel ovato-elliptica, curvula, subgibbosa, non raro paulum inclinata, ore obliquo angustata, olivacea, demum fusca, operc. conico oblique obtuse elongato dimidia theca longiori, calyptra thecam basi aequante. †.

*Patria.* In terra nuda horti „zu Molitsch bei Jauer” Silesiae, Aprili: Sendtner.

*Pottiacea suspectissima.*

**Entosthymenium** Brid. Br. Univ. I. p. 761.

Nomen ab *εντοσθεν* intus et *υμην* membrana e peristomii indole compositum.

Calyptra cucullata. Perist. ext. nullum; internum: membrana angusta annularis margine tandem lacinulata. Theca subinaequalis apophysata terminalis.

1. **E. tristichum** Brid. (l. c.); dioicum? parvulum erectum ramosiusculum fastigiato-cespitosum barbuloideum; folia approximata subtristicha patentia, siccitate ad modum Barbulae in caulem oblique incurva, infima laxa breviora angustiora, ascendendo mole aucta, superiora ovato-lanceolata acutiuscula carinato-concava integerima, nervo continuo crasso, cellulis subquadratis luride viridibus punctulatis tenuissimis; perich. similia, intima breviora, vaginantia; theca in ped. terminali innovando laterali brevi semunciali tortili ferrugineo, apice in apophysin parvulam rotundam nigricantem incrassato erecta ovata subaequalis fuscidula. †.

*Patria.* In Gallia australi circa Dax Aquitaniae: Grateloup in Hb. Decandollei.

In Hb. Bridelii non observavimus.

Subtrib. III. ORTHOTRICHACEAE. I. p. 665.

Cellulae folii basilares infimae solae molles, superiores plerumque incrassatae, rarius pellucidae normales.

Hemicyclus I. **Orthotricheae**. I. p. 666.

Folia distincte papillosa, papillis plerumque tuberculatis, saepe minutissimis, rarius obsoletis. Peristomia plerumque carnosula et pallida, rarissime aurantiaco-colorata.

Gen. XI. **Zygodon** Hook. et Tayl. I. p. 666.

Calyptra dimidiata. Perist. nullum, simplex externum seu duplex; externum e dentibus orthotrichoides 32 simplicibus, geminatis vel bigeminatis, planis, pallidis, internum e ciliis 8—16 linearibus vel externis dentibus similibus compositum. Theca pseudolateralis.

Sectio I. **Amphidium** Nees ab Es. I. p. 667. — Folia lata, spathulata, e cellulis pottioideo-hexagonis areolata, planiuscula v. carinata, laevia, erecta; theca sulcata.

Non satis noti.

2b. **Z. ligulatus** C. Müll.; dense cespitosus humilis, *lurido-rufescens, apice virens*; caulis tenuis fragilis dichotomus; folia caulina conferta, *anguste spathulato-ligulata obtusata*, carinata aequalia, margine inferne convexo-revoluto, ubique integerrimo, nervo subvalido rufescente ante apicem evanido, cellulis basi laxis majusculis hexagonis fuscidulis, superne sensim minoribus *minute hexagonis subquadratis pachydermibus pellucidis rufescentibus ad marginem magis incrassatis rotundatis*, folia igitur *veluti indistincte marginata*, juniora chlorophyllosa molliora nec marginata. Caetera non observata.

*Encalypta? ligulata* Spruce in Musc. Pyr. n. 331. et in Ann. and. Mag. of Nat. Hist. 1849. Musc. Pyr. n. 337!

*Patria.* Regione montosa superiore Pyrenaeorum, in rupibus humidis praesertim ophiticis, locis Labassère, Superbagnères et George de Cauterets: Spruce.

Folia sectionis *Amphidii* typica, nec *Encalyptae* nec alius *Pottiaceae* habet et species ob characteres laudatos a congeneribus suis distinctissima pulchra.

Sectio II. **Codonoblépharon** Schw. I. p. 668. — Folia parva angusta, e cellulis rotundatis superne areolata, papillosa, complicata v. carinata, e basi erecta reflexa vel squarrosa; theca sulcata.

Sectio III. **Euzygodon** C. Müll. I. p. 671. — Folia angusta, margine plus minus convexa, e cellulis rotundatis superne areolata, papillosa, complicata v. carinata, e basi erecta reflexa vel squarrosa; theca sulcata.

21. **Z. tetragonostomus** A. Br. I. p. 677; *Z. Reinwardti* simillimus, theca pentagona!

22. **Z. trichomitrius** Hook. et Wils. I. p. 677.

*Patria.* Prom. b. spei, Buschmannsland: Zeyher.

24. **Z. Moritzianus** C. Müll. I. p. 678.

*Patria.* Columbia, Galipan, 6000 ped. altus, ad arbores cum *Macromitriis* et *Schlotheimia glauca*: Wagner 1849. Septbr.

Sectio IV. **Ulozygodon** C. Müll. I. p. 680. — Folia angusta flexuosa patula, parum reflexa, superne rotundate areolata, crispula v. spiraliter torta, carinata; theca sulcata.

29. **Z. Mougeotii** Br. et Sch. I. p. 681.

*Patria.* Regione montosa et subalpina per Pyrenaeos sylvaticos, rupestris, frequens, sed rarissime fructificans, juxta lacum Séculejo thecis deoperculatis 22. Sept. 1845. Spruce.

Sectio V. **Anoectangium** Hdw. I. p. 683. — Folia angusta lanceolata, superne dense areolata; theca laevis.

33. **Z. compactus** C. Müll. I. p. 683.

*Hedwigia aestiva* Hook. Engl. Fl. V. I. p. 68.

34. **Z. pusillus** C. Müll. I. p. 684.

*Patria.* Costa Rica Americae centr., inter 5000—8000 ped. elev., mens. Febr. 1847: A. S. Oersted.

35b. *Z. tenellus* Mitten (Lond. Journ. of bot. 1851. p. 56!); dense compactus humilis lutescens inferne ferrugineus; caulis tenellus innovando ramosus; folia caulina lineari-lanceolata, nervo carinato excedente mucronata; comalia longiora ligulata, ubique minutissime et densissime papillosa opaca; perich. ovato-acuminata, laxius reticulata, evanidiuervia; theca in ped. mediocri gracili recta ovali-pyriformis, sub ore parum constricta. Operc. et calyptra desunt. †.

*Patria.* Prope Quito: W. Jameson.

Ex auctore *Z. compacto* et *tenerrimo* simillimum.

Gen. XII. **Drummondia** Hook. I. p. 686.

Calyptra dimidiata magna, thecam superans late concava. Perist. simplicis dentes 16 brevissimi imperfecti truncati integri, linea longitudinali tenuissima notati, dense trabeculati rufi leptodermes laeves plani.

Gen. XIII. **Orthotrichum** Hdw. I. p. 688.

Calyptra campanulata plicata. Perist. nullum, simplex vel duplex, Zygodontis.

Sectio I. **Orthophyllaria** C. Müll. I. p. 688. — Folia erecto-appressa, sicca atque madefacta erecta stricta.

5. **O. crassifolium** Hook. et Wils. I. p. 691.

Fl. Antarct. I. p. 125. t. 57.

6. **O. angustifolium** eor. l. c.

Fl. Antarct. I. p. 125. t. 57.

Sectio II. **Euorthotrichum** C. Müll. I. p. 694. — Folia sicca imbricata, madefacta subito reflexo-squarrosa, dein erecto-patula, recurva.

A. *Folia chlorophyllosa.*

b. *Theca immersa v. emergente.*

β. *Epilifera.*

†. *Anguste lanceolata.*

18. **O. alpestre** Hsch. I. p. 698.

Bryol. Europ. Fasc. 42. Suppl. c. tab.



18 b. **O. callistomum** Fischer-Ooster (Bryol. Europ. Fasc. 43. t. suppl. III.); *monoicum*; flos masculus terminalis; *O. stramineo* simillimum; folia caulina latius lanceolata, acuminata, profunde carinata, ala utraque sulcata, margine revoluta, dense granulosa chlorophyllosa, basi hyalina quadrate et hexagone ad cellularum parietes crenulate reticulata, cellulis apicem versus rotundatis, nervo angusto, sub apice evanido; theca in ped. perbrevis immersa, elliptica brevicolla microstoma lutescens, striis 8 aurantiacis, sicca evacuata elongata subcylindrica sulcata, sub ore vix constricta, brunnea, operc. minuto aurantiaco recte acuminato, calyptra pallide straminea glaberrima; perist. d. ext. 8 bigeminati breviores pallidi, interni cilia 8 lata solida, aurantiaca, apice in discum centro pertusum confluentia, cupulam sistentia, persistentia. †.

*Patria.* Helvetia, in cortice Fagi sylvae „Schorenwald” prope Thun: Fischer-Ooster. — Julio.

Ab omnibus congeneribus perist. interni structura memorabili facile distinguitur.

††. *Late lanceolata.*

21. **O. Sprucei** Mont. I. p. 699.

Bryol. Europ. Fasc. 42. c. tab. Suppl.

B. *Folia chlorophyllosa.*

1. Tenella.

29 b. **O. Meyenianum** Hmp. (in litteris!); *monoicum*; pusillum tenellum dense cespitosum, parce dichotomum, pallide virens; folia caulina dense imbricata, madore subito reflexa, e basi decurrente plus minus ovata latiuscule lanceolata apice ligulate obtusa, juniora acuminata, distinctius reflexa, margine hic illic flexuoso, usque fere ad apicem valde revoluta, integro, profunde carinata, parum papillosa, e cellulis multo majoribus grossis incrassatis rotundatis, basi quadratis et ad alas decurrentes laxis pellucidis areolata, nervo ante apicem evanido; perist. similia strictiora, paraphyses numerosas elongatas flavidas cingentia; theca ex vaginula breviter exserta

erecta, e collo longiusculo oblonga, olivacea, 8-sulcata, operc. depresso cupulato breviter acuminato, calyptra sparsim pilosa; perist. d. ext. octo bigeminati, breves pallidi rugulosi fissiles, ciliis 8 aequalibus constantibus simplicibus subulatis flavidis.

*Patria.* Manila: Meyen.

Ab *O. assimili* proximo characteribus designatis certe refugit. — Fol. perig. floris masc. turgidi late convolutaeo-ovata breviter acuminata, basi laxe reticulata colorata.

## 2. Robusta.

33b. *O. laxifolium* Wils. (Mitten in Lond. Journ. of bot. 1851. p. 57!); monoicum, laxe pulvinatum elat. fastigiatim ramosum luteo-virens; folia caulina lanceolata acuminata, basi angustata, plicata carinata, margine revoluta, evanidinervia, e cellulis minutis papillosis areolata; perich. basi latiora laxiora, apice angustiora acutissima; theca immersa oblonga laevis pallescens, siccitate 8-plicata, operc. conico apiculato, calyptra scaberrima straminea apice purpurea totam fere thecam obtegente; perist. ext. d. 8 bigeminati, siccitate revolubiles, pallidi, ciliis 8 dentes longitudine et latitudine aequantibus, ochraceis, basi e cellularum tribus seriebus compositis. †.

*Patria.* Prope Quito: W. Jameson.

Ex obs. Mitteni *O. leptocarpo* et *specioso* simillimum, sed gracilius, folia angustiora longiora, siccitate et madore parum imbricata, cilia illis *O. speciosi* ex substantia aemulancia, valde lata, basi aequaliter superne irregulariter cellulosa.

## Incertae sedis.

43b. *O. recurvifolium* C. Müll.; *dioicum?* *O. Lyellii* simillimum, sed folia e basi longe decurrente, e cellulis longiuscule quadratis laxiusculis laevissimis reticulata, *lineis aureis saepius striatâ* subanguste oblongo-lanceolata valde recurva, margine valde convexa undulata et supra medium *argute serrata*, profunde canaliculata, *nervo*

dorso apice in lamellam simplicem erectam dilatato sub-integro excedente breviter mucronata, e cellulis angulate rotundatis incrassatis parvis areolata, tenerrime papillosa.

*Syrrhopodon recurvifolius* Hsch. in Linnaea XV. p. 118. — C. Müll. Synops. I. p. 546.

*Patria.* Prom. b. spei, ad rupes montis Tabularis: Ecklon.

Characteribus laudatis ab omnibus congeneribus achlorophyllosis elatis distinctissimum et pulcherrimum! Fructus nulli adhuc visus.

Sectio III. **Ulota** Brid. I. p. 711. — Folia sicca crispata, madefacta primum subito reflexo-squarrosa, dein erecto-patula, recurva.

51. **O. germanum** Mont. I. p. 715.

*O. luteolum* Hook. et Wils. in Fl. Antarct II. p. 403. t. 152. f. 2.

Gen. IV. **Cryptocarpus** Dz. et Molkb. I. p. 718.

Calyptra mitraeformis minuta, operculum solum obtegens, haud plicata, pilosa. Perist. nullum.

Gen. XV. **Macromitrium** Brid. I. p. 719.

Calyptra campanulata plicata, basi plus minus profunde laciniata. Perist. nullum, simplex vel duplex; externum: dentes 16 lanceolati, discreti v. geminati, carnosissimi, pallidi v. rufescentes, nunquam reflexi thecae adpressi; internum: membrana plus minus elata truncata vel in dentes externis similes fissa.

Sectio I. **Macrocoma** Hsch. I. p. 720. — Caulis filiformis hypnoideus; folia appressa stricta parva, madore patentia; theca microstoma.

Sectio II. **Orthophyllina** C. Müll. I. p. 723. — Plantae dense pulvinatae; caulis teres robustus, foliis appressis strictis, circulariter areolatis.

Sectio III. **Eumacromitrium** C. Müll. I. p. 723. — Caulis plus minus incrassatus; folia sicca flexuosa v. crispata v. spiralliter contorta.

B. *Folia in spiram contorta.*b. *Calyptra nuda.*α. *Pedunculus brevis.*19. *M. apiculatum* Brid. I. p. 727.

*Patria.* Cartago in Costa Rica, 5000' alt., mens. Febr. 1847: A. S. Oersted.

19 b. *M. Wagnerianum* C. Müll.; *dioicum*; cespites latiusculi deplanati *humillimi*, e ferrugineo amoene luteo-virentes, molles, facile emollientes; caulis longe repens, ramis tenellis gracilibus pusillis, junioribus veluti rosulatis, divisis; folia caulina horride indistincte spiraliter imbricata, madore suberecta densissime imbricata, angustissime aequaliter oblongo-ligulata, obtusiuscula, nervo excurrente breviter reflexiuscule mucronata, ubique ruguloso-plicata, valde canaliculata, e cellulis ubique minutis, basi autem maxime incrassatis lutescentibus et superne magis opacis areolata, subglabra, limbo angusto lutescente ad medium usque instructa; perich. interiora erecta, latiora, magis lanceolata, haud reflexe mucronata; theca in ped. longiuscule exserto rubente laevi erecta, urceolata, senectute clavato-urceolata fusca macrostoma laevissima, firma pallida, *gymnostoma*, simpliciter annulata, operc. e basi depressa longe subulato recto; calyptra tenella brevis amoene fusca et plicata, basi laciniata, apicem thecae tantum obtegens.

*Patria.* Venezuela, Galipan, ad arbores in 4000' altit., m. Aug. 1849: Wagner.

Sp. tenella, inter affines *M. apiculatum* et *brevipedem* sedem optime tenens, a priori notis cursive impressis, ab ulteriori ped. longiore recto, foliis rugulosis angustissimis, mollitie caulis, statura pusilla calyptraque descripta longe distans.

C. *Folia incumbenti-contorta.*1. *Folia elongate acuminata aristata.*

24 b. *M. longipilum* Al. Br. (Hb.); *M. pilifero* similimum, sed multo robustius, intense fuscescens, folia cau-

lina e basi late oblonga longitudinaliter profunde plicata et canaliculata, e cellulis maxime incrassatis *sublunatis* lutescentibus *maxime tuberculosi* areolatâ lanceolata, apice lamina *inaequali terminata* et nervo canaliculato in pilum longissimum hyalinum flexuosum tenuissimum integrum producta, superne cellulis *grosse rotundatis* *incrassatis* tenuiter papillosis *fuscis* areolata, integra, *reflexiuscula*.

*Patria.* Java: Blume.

A *M. cuspidato* simili pilo hyalino foliorum basi tuberculosorum primo visu distinguitur. Sterile solum visum.

27 b. *M. Braunii* C. Müll.; *dioicum*; *M. cirrhoso* simillimum, *aurescens*; folia caulina *subintegerrima*, margine *jam ad basin vel medium distincte reflexa*, basi e cellulis *lunatis pallescentibus epapillosis*, superne sensim minoribus et quadratis *incrassatis laevibus aurescentibus* areolata, nervo *fuscescente excurrente percursa*, *angustiora*, reflexa; perich. stricta erecta, breviora latius lanceolata, profunde plicata, rufescentia, ubique e cellulis *incrassatis membranaceis elongatis plus minus lunatis* areolata, nervo in subulam longiusculam strictam rufescentem excedente; theca in ped. brevi laevi innovando laterali globoso - ovalis laevis exannulata brunnescens, operc. e basi conica recte subulato; perist. duplicis d. ext. late lanceolati longiusculi incurvi, *tenuiter membranacei pallidi rugulosi*, linea longitudinali et lineis transversalibus multis articulati, interni dentes sedecim *ciliaeformes orthotrichoidei rudimentarii vel dentibus externis plus minus adglutinati pallidi*, nunquam in membrana *exserta positi*, vix conspicui; calyptra breviter laciniata subpilosa amoene plicata et lutea.

*Schlotheimia cirrhosa* A. Br. hb.

*Patria.* Java: Blume.

2. Folia lanceolata plus minus acuminata.

a. *Robusta.*

α. Folia erecto-patentia.

36 b. *M. Galipense* C. Müll.; *dioicum*; cespites subcompacti robusti latiusculi altiusculi, e ferrugineo vires-

centes; caulis repens, ramis dense approximatis breviusculis fastigiatis divisis, superne virentibus; folia caulina crispata, interdum indistinctissime spiraliter crispula, madore erecto-patentia, breviuscula, substrictissima, latiuscule lanceolata breviter acuminata, apice eroso-crenulata, nervo profunde canaliculato rufescente excurrente, margine ad latus unicum plus minus revoluta, cellulis basi elongatis valde incrassatis lutescentibus, ad plicam mediam longitudinalem basilarem parce tuberculoso-papillosis, superne in foliis virentibus grossiusculis rotundis pellucidis veluti pottioideis, in aliis foliis unipunctatis magis incrassatis; perich. intima latius et brevius lanceolata, ubique e cellulis elongatis incrassatis lutescentibus areolata; theca in ped. breviusculo laevi rubente erecta, 8-sulcata, e collo brevi pyriformi-ovalis, orificio minori; perist. (simplicis?) d. ext. densissime approximati opaci rugulosi; calyptra longiuscula nuda fusca, basi multifida, laevis.

*Patria.* Venezuela, Galipan, ad arbores alt. 6000 pedum: Wagner m. Septbr. 1849 c. *M. longifolio*, pyriformi, Schloth. glauca et *Zygodonte Moritziano* commixtum legit.

Perist. imperfectum et operculum non observavimus. Notis cursive impressis a *M. longifolio* haud dissimili distat.

β. Folia reflexa.

37. *M. longifolium* Brid. I. p. 737; pedunculus scaber.

β. *brevifolium*; folia latiora breviora sordide viridia, perich. breviora.

*Patria.* Var. β. Galipan Columbiae, ad arbores 6000' alt., m. Julii 1849.: Wagner legit.

38b. *M. Guatemaliense* C. Müll.; dioicum; cespites latissimi robustissimi altiusculi, e ferrugineo sordide virides, rigidiusculi, radiculoso-tomentosi; caulis longe repens, ramis erectis altiusculis, parum breviter fastigiatis divisis, densifoliis; folia caulina valde cirrhata, madore parum reflexa patula *M. longifolii* β. *brevifolii*, inferne

tuberculoso-papillosa, *superne papillis carentia, igitur haud unipunctata, sed e cellulis minutissime angulato-rotundatis subglaberrimis areolata*; perich. late lanceolata acuminata, longiuscula, strictissima, plicata, integra, *cellulis angustissime linearibus rectis, nec curvulis, nec incrassatis, nec lunato-tuberculosis, nec luteis, ad apicem folii sensim minutissime rotundatis, ubique pallide virentibus glaberrimis*; theca in ped. perbrevis laevi strictissimo purpureo erecta, *turgide elliptica, maxime octies sulcata, fusca, dein brunnescens nitida firma, sicca oblonga submacrostoma, simpliciter annulata, operc. e basi conica subito recte subulato*; perist. duplicis d. *externi in membranam altiusculam truncatam veluti conflati, breviusculi carnosii opaci, ad latera haud rotundato-articulati sed aequales, interni membrana aequilonga truncata, in dentes haud fissa, tenera, albida rugulosa*; calyptra nuda multifida.

*Patria.* Guatemala, vulgatissimum et mensi Martii 1848. fruct. maturis et supramaturis: Friedrichsthal? Ex horto dom. Van Houtte copiosissime communicavit Kegel, nunc hortulanus bot. Halensis.

A *M. longifolio* proximo characteribus laudatis facile distinguitur.

b. *Graciliora.*

β. *Folia reflexa.*

48b. **M. pyriforme** C. Müll.; *dioicum*; cespites late prostrati, laxè cohaerentes, e ferrugineo lutescentes v. virescentes, rigidi; caulis ascendens *elongatus gracilis flexuosus, ramis longis gracilibus paucis divisus; folia cirrhato-incumbentia, madore reflexa et apicibus erectis, laxè imbricata, longiuscula, angusta, e basi erecta longiuscula lutea incrassate areolata anguste lanceolato-acuminata, reflexa, integerrima, nervo profunde canaliculato in mucronem exeunte, margine inferne convexo vel basi angustissime reflexo, cellulis basi in membranam luteam veluti homogeneam glaberrimam, hic illic in plicis interdum papillis tuberculosis paucis praeditam, conflatis, su-*

perne opacis unipunctatis rotundatis; perich. interiora erecta, longius apiculata, ubique e cellulis elongatis in membranam luteam glabram conflatis areolata; theca in ped. *elongato* laevi purpureo flexuoso torto erecta, e collo *longo globoso-ovalis igitur amoene pyriformis, octies plicata, microstoma, fusca, firma, annulata; perist. d. ext. densissime approximati carnosi robusti opaci rugulosi; calyptra glabra lutea.*

*Patria.* Venezuela, Galipan, 6000 pedes elevatum, ad arbores: Wagner m. Sept. 1849. Inter *M. longifolium* var.  $\beta$ . specimina inveni.

Perist. internum membrana tenera flavida videtur. Operculum non vidimus. — Notis designatis primo momento sp. pulchra discernibilis. Thecam *M. Blumei* et caulem *M. longicaulis* habet.

48c. *M. Salakanum* C. Müll.; *monoicum*; cespites humiles densi rigidi pallide virentes; repens, ramis parce dichotomis *humilibus* assurgentibus densifoliis; folia densissime imbricata valde crispatula, madore subito valde reflexa, e basi longiuscula pallida, e cellulis brevibus lunatis *glaberrimis* reticulata, erectâ subito reflexa lanceolato-acuminata, breviuscula, nervo autem canaliculato excedente fuscescente *plus minus pungentia vel breviter aristata integerrima, complicato-concava, margine convexo, superne cellulis opacis versus apicem sensim rotundatis viridulis; perich. similia breviora, intima erecta, teneriora oblongo-ligulata mucronata, subplicata, intimum minutum ligulatum ubique tenerum evanidinerve; theca in ped. ascendente sed decurvato breviusculo globoso-ovalis microstoma, fusca nitida, glabra, orificio siccitate plicato; perist. d. externi angusti rugulosi pallidi; calyptra basi longius laciniata.*

*Patria.* Java, ad arbores montis Salak: Zollinger sub No. 1426. Z., cum *M. orthosticho* commixtum.

A *M. longicauli* simili notis designatis differt. — Flos masc. inter axillam folii in ramulo tenerrimo vix conspicuo paucifolio terminalis, foliis perig. paucis late



ovatis convolutaceis superne opacis viridulis. — Perist. perfectum et operculum non vidimus.

54. *M. orthostichum* Nees ab Es. I. p. 745.

*Patria.* Java, monte Salak ad arbores inter *M. Salakanum* sub No. 1426.: Zollinger.

Macromitria non satis nota.

66. *M. scabrisetum* Wils. (Trans. of Linn. Soc. XX. p. 163.); repens; caulis brevis erectus; folia subpatentia, lineari-lanceolata acuta, plicato-carinata, nervo subexcurrente; theca in ped. scabro sulcata (?), operc. longirostro; calyptra glabra. †.

*Patria.* Insulae Gallopagos, Charles-Island: Charles Darwin, probabiliter ad trunc. arborum in region. editioribus insulae.

Ex observante auctore *Schloth. longifoliae* Hook. (?) simile, forsan in viciniam generis *Trachypus* R. et Hsch. (*Neckera Trachypus* nob.) ponendum!

67. *M. argutum* Hmp. (Linn. XXII. p. 581.); rami erecti breves; folia conferta lanceolata acuta, humida patienti-erecta undulato-torta, sicca uncinato-tortilia erecta, superne argute serrata; calyptra pilosa. †.

*Patria.* Brasilia, prov. Minarum generalium pr. Caldas: Dr. A. Regnell.

Ex obs. auctoris ab omnibus congeneribus foliis evidenter serratis differt et *M. angustifolio* affine.

Gen. XVI. **Schlotheimia** Brid. I. p. 751.

Calyptra campanulata nec plicata. Perist. d. ext. in spiram revoluti. Caetera Macromitrii.

Sectio I. **Gracilaria** C. Müll. I. p. 751. — Caulis filiformis subteres, foliis appressis, in spiram contortis oblongis laevibus, nec plicatis nec corrugatis.

Sectio II. **Acuminella** C. Müll. I. p. 752. — Caulis robustus densifolius, foliis appressis in spiram contortis lanceolato-acuminatis v. cuspidatis, laevibus vel corrugatis.

4. **S. Campbelliana** C. Müll. I. p. 753.

*S. quadrifida* Hook. et Wils. in Fl. Antarct. I. p. 126. t. 58.

Sectio III. **Ligularia** C. Müll. I. p. 754. — Caulis robustus densifolius, foliis appressis in spiram contortis, oblongo-ligulatis, corrugatis v. laevibus.

5b. **S. Oerstediana** C. Müll.; *dioica*; *S. nitidae* simillima, sed vix tomentosa, parce fructifera, folia perich. intima *anguste lanceolato-acuminata, inferne maxime plicata, superne haud rugulosa et tenerius membranacea*; theca in ped. perbrevis flavido erecta oblongo-cylindrica leviter sulcata, operc. cupulato recte subulato; perist. d. ext. longiusculi carnosissimi opaci, medio longitudinaliter exarati, interni in membrana brevissima externos aequantes, *fusci angustissime lanceolati tenues, ubique striatuli*; calyptra magis fuscidula, apice plus minus scabra.

*Patria.* America centralis, Costa Rica, inter 5000 — 8000 ped. elev. mens. Febr. 1847. legit A. S. Oersted.

25b. **S. glauca** C. Müll.; *S. trichomitriae* simillima, inferne ferruginea, *superne intense glauca*, haud tomentosa, sed *laxissime cohaerens*, humilis, *rigida*; folia caulina e cellulis minus rhomboidalibus, *basi valde incrassatis*, composita; perich. exteriora similia, sed longiora, interiora longius apiculata; theca in ped. *longius exserto* erecta cylindrica fusca nitida laevis, calyptra pilosissima amoene lutea; perist. duplex.

*Patria.* Venezuela, Galipan altitud. 6000 ped., ad arbores: Wagner m. Sept. 1849.

Operculum deest et perist. imperfectum tantum vidimus.

Hemicyclus II. **Grimmieae**. I. p. 764.

Folia multo laeviora, papillis plerumque obsoletis rarius distinctis. Peristomia constanter colorata, purpurea, rufa vel aurantiaca.

Gen. XVII. **Coscinodon** Spreng. I. p. 764.

Calyptra orthotrichoideo-campanulata haud plicata, theca brevior. Perist. *Grimmieae*, valde cribriformum.

Gen. XVIII. **Glyphomitrium** Brid. I. p. 765.

Calyptra campanulata magna, thecam totam includens, profunde laciniata, plicata. Perist. simpl. d. 16 breviter lanceolati integri linea media exarati per paria approximati.

Gen. XIX. **Brachysteleum** Rehb.

anno 1828! — *Ptychomitrium* Bruch, a Fürrohr descriptum in Regensb. Bot. Zeit. 1829. II. Ergänzungsblätter, p. 19.

Calyptra *Glyphomitrii*, thecam omnino vel fere obtegens. Perist. *Trichostomi*.

6. **B. Sellowianum** C. Müll. I. p. 769.

*Patria.* Brasilia, prov. St. Catharinae: Blumenau.

Gen. XX. **Gümbelia** Hmp. I. p. 770.

Calyptra dimidiata. Perist. simpl. dentes 16 lanceolati integri, linea divisurali notati, fissiles, cribrosi et (in *Cinclidotonte*) in cilia numerosa barbuloidea fissi vel nulli.

Sectio I. **Platystomium** C. Müll. — Theca macrostoma immersa urnigera; plantae orbiculariter pulvinatae terminales; plantae terrestres.

Sectio *Platystomati* generis *Grimmiae* similis.

1. **G. laxa** C. Müll. I. p. 771.

2. **G. ambigua** C. Müll.; monoica exigua pulvinato-cespitosa; caulis parce ramosus; folia oblongo-lanceolata patulo-incurva, apice plus minus cano-pilifera; perich. multo majora erecta, elliptico-lanceolata, in pilum hyalinum grosse dentatum producta fere suae longitudinis; theca immersa oblongo-ovalis, operc. convexo-conico breviter rostrato; calyptra cuculliformis. †.

*Schistidium ambiguum* Sulliv. Mem. of the Amer. Acad. of Arts and Sc. IV. New. Ser. 1849. p. 170.

*Patria.* Ad rupes siccas pr. Santa Fé in New-Mexico: Fendler.

A *Grimmia apocarpa*  $\delta$ . *conferta* characteribus designatis specificè longe differt.

Sectio II. **Eugümbelia** C. Müll. — Theca emersa microstoma plus minus ovalis; plantae orbiculariter pulvinatae, terminales; plantae terrestres.

Sectio *Eugrimmiae* generis *Grimmiae* similis.

a. *Pedunculus emergens curvulus.*

3. **G. crinita** Hmp. I. p. 771.

4. **G. Sinaica** Hmp. I. p. 772.

b. *Pedunculus exsertus.*

$\alpha$ . Folia crispula.

5. **G. Abyssinica** Hmp. I. p. 772.

$\beta$ . Folia conferta.

6. **G. alpestris** Hmp. I. p. 772.

7. **G. caespiticia** C. Müll. I. p. 773.

8. **G. montana** Hmp. I. p. 774.

9. **G. ovalis** C. Müll. I. p. 774.

10. **G. orbicularis** Hmp. I. p. 775.

11. **G. calyptrata** C. Müll. I. p. 775.

*Patria.* Prope Santa Fé in New-Mexico a Fendler pulcherrime lectam copiose misit Sullivan.

Sectio III. **Cinclidotus** P. B. — Plantae fluitantes fontinaloideae hydrophilae longiscentes; caulis ramosissimus; folia valde chlorophyllosa carnosae; thecae pseudolaterales macrostomae; perist. barbuloideum, liberum vel ad columellam exsertam acutam adnatum.

Plantis huc pertinentibus, bryologo prius ob sedem maxime incertam difficillimis, a nobis repetite observatis atque cum omnibus affinibus muscis comparatis, persuasissimum nunc habemus, ad Grimmiaceas revocandas esse. Affines sunt *Grimmiae apocarpae* var. *rivulari* aliisque congeneribus ob texturam folii carnosam chlorophyllosam; Coscinodonti perist. dentes partim intensive purpurei cribrosi similes observantur; cum Fontinali et *Neckera hygrometrica* (*Wardia* Harv.) locum natalem atque habitum similem tenent. — Sectio pulcherrima.

a. *Fructificatio terminalis.*

**12. G. riparia** C. Müll.; dioica; caulis laxè cespitosus subhumilis dichotome divisus intense viridis inferne saepius metallico-nitens; folia caulina dense imbricata, madore parum patula, e basi decurrente anguste ligulato-oblonga obtusiuscula, apice parum reflexa, integerrima, carnosula, intense chlorophyllosa, e cellulis densis parvulis subrotundatis robustis areolata, margine ubique cellulis obscurioribus limbata, nervo valido angustissimo subcarinato excurrente percursa, saepius dilacerata; perich. majora, basi infima subvaginantia et laxius reticulata; theca in ped. brevi flavido exserta, turgide ovalis flavida leptodermis, operc. conico acuminato subrecto, calyptra conico-dimidiata glabra sordide fuscidula; perist. d. liberi robusti intense purpurei in cilia 2—4 filiformia stricta siccitate subcontorta fissi, laeves.

*Cinclidotus riparius* Walk. Arnott in Disp. méth. p. 23. — Br. Europ. Fasc. XVI. Ripariaceae. Cinclidotus, p. 10. t. 2. — *Racomitrium riparium* Brid. Mant. Musc. p. 80. — I. p. 223. — *Trichostomum riparium* Web. et Mohr. Bot. Taschenb. p. 120.

*β. terrestris*; plantae humiliores subcespitosae erectae, minus ramosae, foliis pallidioribus, siccitate contortis, e cellulis minutissimis opacis areolatis, nervo in mucronulum acutum brevissimum exeunte flavido percursis, theca longius pedunculata.

Br. Europ. l. c. — *Barbula cylindrica* Wils. in Phytologist. 1845. p. 282. — *B. Brebissonii* Brid. I. p. 834. — *Trichostomum flavipes* Steudel. Nomencl. Crypt. p. 421. — *Racomitrium flavipes* Brid. I. p. 224. — *Didymodon Cinclidotus* De Not. Specim. de Tortulis Ital. p. 45. — *Desmatodon dichotomus* Brid. I. p. 823. sec. De Notaris in Syllab. Musc. Ital. p. 183. huc pertinet. — Varietas memorabilis, quae primo visu species propria pulchra facile putari potest.

*Patria.* In rivulis alpinis per Europam temperatam et calidiorē hic illic, rarior. Var. *β.* Forma amphibia, terram amans, in Normandia pr. Falaise: a Brébisson et Romae in Villa Pamphili a Bridel primum lecta.

Pl. masc. gracilior, magis fasciculata, floribus congenerum.

b. *Fructificatio lateralis cladocarpica.*

## α. Folia erecto-patula.

13. **G. fontinaloides** C. Müll.; dioica; caulis laxo cespitosus fluitans elongatus, ramis brevibus fertilibus vel sterilibus permultis ramosissimus fontinaloideus, intense viridis; folia laxo imbricata patula, siccitate crispula, e basi decurrente latiuscule oblongo-lanceolata, inaequalia, carinata, apice crenulata vel denticulata, margine e basi usque ad apicem fere valde revoluta, carnosa, ubique e cellulis minute quadratis maxime chlorophyllosis mollibus carnosissimis areolata, nervo valido viridi excurrente carinato percursa; perich. pauca magna semivaginantia, basi laxo reticulata; theca in ped. perbrevis vix emersa, cylindraceo-oblonga turgida leptodermis flavida, dein fusca nitida, operc. conico acuminato subobliquo magno, calyptra conico-dimidiata laevi sordide flavida; perist. d. intense purpurei laeves longi liberi, in crura 2—4 inaequalia filiformia longa stricta, siccitate vix contorta fissi.

*Cinclidotus fontinaloides* P. B. Prodr. p. 52. — Brid. I. p. 229. — Br. Europ. Fasc. 16. Ripariaceae. Cinclidotus, p. 9. t. 2. — *Racomitrium fontinaloides* Brid. Mant. Musc. p. 80. — *Trichostomum fontinaloides* Hdw. Musc. Frond. III. p. 36. t. 14. — *Trematodon fontinaloides* Röhl. Fl. Germ. III. p. 65. — *Fontinalis minor* L. Sp. Pl. p. 1572. — *Fontinalis triangularis minor, carinata, e cymis capsulifera.* Dill. Musc. p. 252. t. 32. f. 2. — *Hypnum fontinaloides* Lamarck. Encycl. Meth. Bot. III. p. 164. — *H. antipyreticum* β. minus Neck. Meth. Musc. p. 152.

*Patria.* In fluviis petrosis et rivulis montanis praecipuis calcareis totius Europae vulgata. — *Aestate.*

Planta mascula floribus permultis glomeratis crispatissima, Racomitriis valde similis, fol. perig. parvis late ovatis breviter acuminatis concavis, basi teneris et pelucide laxo reticulatis, antheridiis clavatis parvulis, paraphysibus multis chlorophyllosis.

## β. Folia secunda.

14. **G. aquatica** C. Müll.; dioica; caulis longissimus, basi simplex, superne in ramos elongatos ob ramulos fertiles multos breves iterum ramosissimos maxime partitus,

strictus, fluitans, apice ut rami subfalcatus, intense viridis; folia laxè imbricata secunda, anguste lanceolato-acuminata, basi haud decurrentia, margine integerrimo erecto, inferne cellulis obscurioribus limbato, nervo deplanato excurrente lato chlorophylloso in mucronulum excurrente, cellulis majusculè rotundato-quadratis chlorophyllosis nunquam carnosis, saepius dilacerata; perich. parum majora, basi subvaginantia laxius reticulata; theca in ped. perbrevis exserta turgide ovalis fusca nitida firma, operc. longiusculè conico-acuminato subobliquo, calyptra conico-dimidiata glabra sordide fuscidula; perist. d. intense purpurei longi laeves ad columellam longè exsertam adnati valde irregulariter fissi teneri.

*Cinclidotus aquaticus* Br. Europ. Fasc. XVI. Ripariacae. Cinclidotus, p. 8. t. 1. — *Gymnostomum aquaticum* Brid. Mant. Musc. p. 19. — I. p. 93. — *Anoectangium aquaticum* Hdw. Sp. Musc. p. 41. — *A. falcatum* P. B. Prodr. p. 42. — *Hedwigia aquatica* Hdw. Musc. Fr. III. p. 29. t. 11. — *Bryum aquaticum* Gmel. Syst. Nat. II. p. 1331. — *Hypnum aquaticum* Jacq. Fl. Austr. Cat. III. p. 48. t. 290. — *H. nigricans* Vill. Pl. Dauph. III. p. 904. — *H. aquaticum nigricans*, foliis angustis falcatis. Dill. Musc. p. 334. t. 43. f. 70.

*Patria.* In alpium et subalpestrium rivulis per totam Europam temperatam et calidiorem, saxis praesertim adhaerens. — *Aestate.*

Planta mascula femineae similis, floribus glomerate aggregatis, fol. perig. e basi ovata laxius reticulata lanceolatis, anth. et paraph. *G. fontinaloidis*.

*Species incerta.*

? *Gymnostomum (Hedwigia) pachyloma* Mont. (Ann. d. sc. nat. 1838. IX. p. 51.); elongatum fluitans elongate ramosum sordide viride, ramis apice parum curvatis; folia falcato-secunda densiusculè imbricata, late ovata et recurvato-acuminata, nervo crasso viridi excurrente cuspidata, ubique carnosà, limbo maxime incrassato viridi marginata, viridia, e cellulis maxime conflatis difficile discernibilibus minutis quadratis areolata.

*Patria.* Chile, pr. Valparaiso in aquis calidis vivis: d'Orbigny.

*G. aquaticae* habitu similis.

Sectio IV. **Scouleria** Hook. — Plantae hydrophilae fluitantes procerae cladocarpicae; caulis dichotomus; folia chlorophyllosa subcarnosa; thecae globosae, operculo in columella exserta apice dilatata persistente; perist. d. 16 in crura 32 fissi integri late lanceolati-subulati, madore inflexi, siccitate erecti breves.

15. **G. Scouleri** C. Müll.; dioica; caulis robustus dichotome divisus intense viridis, foliis saepius dilaceratis veluti setoso-foliosus; folia caulina imbricata, madore reflexa patula, late ovata obtusa, carinata, margine erecto, e medio folii ad apicem usque dentato, ubique cellulis obscurioribus late flaviuscule limbato, nervo valido tereti ante apicem abrupto fusco, cellulis rotundatis incrassatis pallentibus, vel hexagonis pachydermibus, basi magis quadratis parvis teneris pellucidis, in alarum basilarium medio saepius longioribus flavis igitur plicam levissimam veluti sistentibus; perich. similia; theca immersa in ramulo brevi magna globosa turgida pachydermis macrostoma atro-fusca, operc. parvo deplanato breviter conico in columella exserta apice dilatata persistens; perist. d. 16 in 32 crura lanceolata latiuscula rufa integra remote articulata fissi; calyptra glabra.

*Scouleria aquatica* Hook. in Musc. Americ. Drumm. No. 63! — Cum tab. in Miscell. Bot. I. p. 33. t. 18. — Schw. Suppl. IV. t. 315.

*Patria.* In aquis fluentibus apud Observatory inlet in ora occidentali Americae borealis, pari latitudine geographica, quae Londinis est, saxis adnascens; nec non in rivulis montium Rocky Mountains et in saxis fluviorum Columbia et Portage River. Scouler primus invenit et Thomae Drummond dedit.

Planta memorabilis, pulchra et distinctissima, habitu, structura folii et columella exserta Cinclidontibus valde affinis, ex areolatione folii et plicatione spuria *Gümbeliae caespiticiae* similis, certe ad Grimmiaceas pertinens.



Gen. XXI. **Grimmia** Ehrh. I. p. 776.

Calyptra mitraeformis laciniata minuta. Perist. simpl. d. 16 lanceolati vel subulati, trabeculati, linea media exarati, integri vel fissiles, saepius maxime cribrosi.

Sectio I. **Platystoma** C. Müll. I. p. 776. — Theca macrostoma urniformis v. cyathiformis pro more immersa.

6. **Gr. anodon** Br. et Sch. I. p. 780.

*Anictangium flaccidum* De Not. in Mant. Muscor. ad Fl. Pedemont. p. 46?

9. **Gr. tortuosa** Hook. et Wils. I. p. 782.

Fl. Antarct. II. p. 400. t. 151. f. 7.

*Patria.* Ad rupes quarzosas siccas montis Verret, alt. 1000' parce vicens.

10. **Gr. falcata** Hook. et Wils. I. p. 782.

Fl. Antarct. II. p. 401. t. 151. f. 8.

*Patria.* Ad rupes et saxa cujusdam catarractae.

Sectio II. **Eugrimmia** C. Müll. I. p. 783. — Theca microstoma, in pedunculo recto vel cygneo; folia superne quadrate basi hexagone pellucide reticulata; perist. dentes integri vel 2 — 3-fidi.

Sectio III. **Dryptodon** Brid. I. p. 797. — Theca et perist. praecedentis; foliorum cellulae parietibus plus minus crenulatis s. sinuatis.

46. **Gr. rupestris** C. Müll. I. p. 803.

*Dryptodon rupestris* Hook. et Wils. Fl. Antarct. II. p. 402. t. 152. f. 1.

*Patria.* Ad rupes humidias in declivibus septentr. montis Foster, alt. 400 pedum.

48. **Gr. crispula** C. Müll. I. p. 804; anguste annulata, operc. rostrato recto, theca erecta vel inclinata.

*Dryptodon crispulus* Hook. et Wils. Fl. Antarct. I. p. 57.

Sectio IV. **Rhacomitrium** Brid. I. p. 806. — Folia Dryptodontis, sed plantae irregulariter ramosae, ramulis lateralibus pluries divisae.

53b. **Gr. contermina** C. Müll.; *dioica*; *Gr. lanuginosae* simillima, sed minus lanuginosa et folia in pilum an-

*gustissimum vix flexuosum subintegerrimum attenuata, laevissima, profunde canaliculata, ubique fere margine valde revoluta, e cellulis ubique elongatis haud interruptis ad parietes punctulate crenulatis areolata.*

*Patria.* America centralis, Costa-Rica, alt. inter 5000—8000', Febr. lg. A. S. Oersted.

A *Gr. canescente* fol. laevissimis, a *Gr. heterosticha* folii areolatione et habitu, a *Gr. crispipila* pilo folii integro vix flexuoso certe differt. Sterilis tantum nota.

Grimmiae non satis notae.

1. *Gr. mollis* Br. Europ. (Fasc. 42. Suppl. I. c. tab.); dioica, pulvinato-cespitosa fragilis laete viridis mollis humilis multoties dichotoma, apice innovans; folia mollia, erecto-patentia, e medio conniventia, caulina elongato-elliptica obtusiuscula concava, nervo angusto sub apice evanido; perich. multo majora, ex elongato-elliptico acuminata et lanceolata, apiculo hyalino, nervo tenuiore et areolatione laxiore; omnium cellulae illis *Gümbeliae cespiticiae* duplo fere majores, valde chlorophyllosae, basi pelucidiores; theca in ped. brevi subemersa elliptica, simpliciter annulata, operc. e basi convexa in apiculum rectum brevem producto; perist. d. longi lineali-lanceolati, secus lineam divisuralem pertusi, rubelli, trabeculati, valde granulosi, siccitate reflexi. †.

*Patria.* In alpe Goustafjeld prov. Tellemarken Norvegiae: Holmgren.

Ex auct. a *Gümbelia cespiticia* proxima differt: theca vix exserta, dentibus longioribus pertusis intense purpureis, foliis latioribus teretinervis haud plicatis laxius reticulatis ramisque flagelliformibus teneris remotifoliis. — An *Grimmia*? an *Gümbelia*? Calyptra non observata.

II.

**MUSCI VEGETATIONIS PLEUROCARPICAE.**

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SUBCLASSIS II.

**Pleurocarpi.**

*Fructus lateralis, e gemma distincte laterali oriundus.*

**I. Distichophylla.**

*Folia in series duas oppositas disposita.*

Trib. XX. **PHYLLOGONIACEAE.** II. p. 1.

Gen. I. **Phyllogonium** Brid. II. p. 1.

**II. Tristichophylla.**

*Folia in series 4 veluti 3 erectas disposita, dimorpha.*

Gen. I. **Hypopterygium** Brid. II. p. 3.

Calyptra dimidiata. Perist. Hypni.

Sectio I. **Euhypopterygium** Brid. II. p. 3. — Plantae stipite apice dendroideo-diviso instructae.

3. **H. filiculaeforme** Brid. II. p. 5.

*Patria.* Nova Seelandia: W. Stephenson 1843.

4. **H. commutatum** C. Müll. II. p. 6.; folia ad latus unicum tantum limbata, ad alterum immarginata.

*H. setosum* Wils. in schedulis!

*Patria.* Nova Seelandia: W. Stephenson 1843.

12. **H. flavescens** Hmp. Linn. XX. p. 95!

*H. nivale* C. Müll. II. p. 9.

Sectio II. **Rhacopilum** Brid. II. p. 11. — Plantae procumbentes vage irregulariter ramosae.

Gen. II. **Cyathophorum** P. B. II. p. 14.

Calyptra mitraeformis. Peristomium Hypni.

**III. Polystichophylla.**

*Folia in series 4 et ultra disposita.*

## Trib. XXII. MNIADELPHACEAE. II. p. 16.

Folii cellulae parenchymaticae mniioideae.

Gen. I. **Daltonia** Hook. et Tayl. II. p. 16.Calyptra mitraeformis. Perist. duplex necke-  
roideum.1. **D. splachnoides** Hook. et Tayl. II. p. 17. Monoica  
et hermaphrodita.

Br. Europ. Fasc. 44—45. Daltoniaceae; c. tab.

2. **D. nervosa** Hmp. II. p. 17.*Hookeria nervosa* Hook. et Wils. Fl. Antaret. I. p. 142. t. 61.3. **D. angustifolia** Dz. et Molkb. II. p. 18.*Patria.* Java: Blume. Hb. Al. Braun.3b. **D. contorta** C. Müll.; *monoica*; perpusilla; folia  
longiuscule lanceolato-acuminata acuta *latiuscula*, *siccitate et madore contorta*, *inferne profunde canaliculata supra nervum canaliculatum ultra medium evanidum tenuem flavidum plana subintegerrima*, ubique margine plano flavide limbata, e cellulis *densis pachydermibus firmis flavescen-*  
*tibus pellucidis hexagonis areolata*; perich. caulinis multo minora; theca in ped. *perbrevis*, e medio *jam distincte tuberculoso erecta*, *minute globosa*, basi tuberculosa; perist. *D. angustifoliae*.*Patria.* Java: Blume. Hb. Al. Braun.A *D. angustifolia* proxima characteribus laudatis facile distinguitur.Gen. II. **Mniadelphus** C. Müll. II. p. 20.

Calyptra mitraeformis. Perist. duplex Hypni.

b. *Folia marginata.*a. *Folia rotundata plus minus mucronulata.*5b. **M. jungermannioides** C. Müll.; *dioicus*; cespites *humillimi depressi mollissimi*, e viridi lutescentes iricolores, laxissime cohaerentes, radiculosi; *caulis depressus tenerrimus jungermannioides fragilissimus*, brevissime

ramosus, *angustissime complanatus*; folia caulina e basi breviter spathulata rotunda, mucrone brevissimo reflexo vel contorto terminata, integerrima, caviuscula, limbo flavo ubique circumducta, e cellulis majusculis hexagonis aequalibus pellucidis teneris, basi paucis laxioribus reticulata, nervo obsoleto vel brevi tenuissimo percursa, caule facillime solventia; perich. minuta vaginanti-lanceolata; ped. geniculato-ascendens laevis purpureus tenerrimus. Caetera desunt.

*Patria.* Java: Blume. Hb. A. l. Braun.

Omnium congenerum tenerrimus, pusillus, a *Mn. Montagnei* notis laudatis toto coelo distans et habitu *Mn. aurato* magis aemulans. Flos masc. minutissimus eparaphysatus.

6. **M. flaccidus** Hmp. II. p. 22.

*Hookeria flaccida* Hook. et Wils. Fl. Antarct. II. p. 422. t. 155. f. 5.

8. **M. pulchellus** Hmp. II. p. 23.

*Hookeria pulchella* Hook. et Wils. Fl. Antarct. I. p. 142. t. 62.

9. **M. spathulatus** C. Müll. II. p. 24; folia flavicantia, dein iricoloria.

*Patria.* Java, ad truncos putridos montis Prabakti: Zollinger alt. 2500' legit; sub No. 3512! Primus omnium Blume in Java legit.

Trib. XXIII. HYPNOIDEAE. II. p. 28.

Cellulae folii prosenchymaticae rhombeae vel rotundatae.

Subtr. I. NECKERACEAE. II. p. 29.

Peristomium internum ciliis interpositis nullis.

Gen. I. **Rhegmatodon** Brid. II. p. 29.

Calyptra dimidiata. Perist. duplex; externum hypnoideum breve; interni dentes externos multo superantes lati, in membrana tessellata veluti perforata positi.

Gen. II. **Fabronia** Raddi II. p. 31.

Calyptra dimidiata. Perist. simplex vel duplex. Externi dentes 16 lanceolati, infra orificium oriundi membranacei planissimi coriacei fusciduli; interni ciliiformes totidem rarius observati.

Sectio I. **Eufabronia** C. Müll. II. p. 31. — Plantae tenerimae haploperistomatae, thecis minutis leptodermibus.

1. **F. pusilla** Raddi II. p. 31.

Br. Europ. Fasc. 44—45, c. tab. Fabroniaceae.

Sectio II. **Anacamptodon** Brid. II. p. 38. — Plantae robustiores diploperistomatae, thecis robustis carnosulis.

1 b. **F. splachnoides** C. Müll. II. p. 38.

*Anacamptodon splachnoides* Brid. Br. Europ. Fasc. 44—45. Fabroniaceae, c. tab.

Sectio III. **Campylodontium** Dz. et Molkb. II. p. 39. — Caulis densifolius crassus robustus, foliis plicatis.

Gen. III. **Neckera** Hdw. II. p. 40.

Calyptra dimidiata. Perist. duplicis dentes 16 lanceolati trabeculati, pro more pallidi, e lamina duplici compositi, interdum in crura plura irregulariter fissi; interni illis similes vel capillares, in membrana plus minus exserta positi, ciliis interpositis nullis. Peristomium maxime varium, nunc omnino, nunc externum, nunc internum obsoletum.

Sectio I. **Euneckera** C. Müll. II. p. 41. — Caulis complanatus distiche foliosus, pinnatim divisus; folia ligulato-oblonga, pro more elliptica vel rotundate areolata et asymmetrica.

Subsectio I. **Leiophyllum** C. Müll. l. c. — Folia aequalia.

5. **N. complanata** Hüb. II. p. 43.

Br. Europ. Fasc. 44—45. Neckera, p. 9. t. 5.

6. **N. leiophylla** Gumb. II. p. 44.

*N. Sendtneriana* Br. Europ. Fasc. 44—45. Neckera, p. 10. t. 6.

6. Nomen posterius!



Subsectio II. **Rhystophyllum** Ehrh. II. p. 46. — Folia undulata.

14. **N. Menziesii** Hook. II. p. 48.

*Patria.* In sylva Thuringiaca prope Tambach in valle „Dietharzer Grund” nuncupata sterilem nuperius detexit Röse, scholae Snepfenthalianae praeceptor.

18. **N. pennata** Hdw. II. p. 50.

Br. Europ. Fasc. 44 — 45. Neckera, p. 6. t. 1.

$\beta$ . *tenera*; l. c. *N. oligocarpa* Bruch. Br. Europ. l. c. t. 2.

18 b. **N. chlorocaulis** C. Müll.; monoica; caulis primarius repens, secundarius procumbens virescens, cum foliis teneris pallidis tener, parce irregulariter pinnatus; folia asymmetrico-oblonga subacuminata, planiuscula, brevissime binervia, basi margine subrevoluta, e cellulis brevibus mollibus chlorophyllosis, dein chlorophyllo destitutis, areolata, basi decurrentia, haud auriculata, apice parum denticulata, rugulosa; perich. e basi convolutacea late ovata in acumen longum planiusculum denticulatum attenuata; omnia tenuiter membranacea; theca immersa ovalis majuscula, oblique acuminato-operculata; perist. d. ext. longi trabeculati pallidi laeves medio subpertusi, int. aequilongi filiformes laeves subcarinati.

*Patria.* Mexico, prov. Mechoacan, Cerro San Andres, 1849. m. Martii: v. Chrismar legit.

A *N. urnigera* simillima theca immersa, a *N. Hornschuchiana* et *Ehrenbergiana* statura gracili tenera, a *N. pennata*  $\beta$ . *oligocarpa* simillima ramis nunquam flagelliferis primo adspectu distinguitur.

27 b. **N. anacamptolepis** C. Müll.; *dioica!* caulis primarius repens nudus; divisiones erectae tenellae pusillae strictae, ramis distichis *brevibus* teneris simplicibus vel iterum pinnatis *eleganter aequaliter et dense pinnatae*, frondiformes, pallescentes, firminusculae, basi nudae et foliis squamaeformibus *perfecte squarrosis reflexis* parvis, late ovatis reflexe breviter acuminatis, margine valde revolutis integerrimis, e caeteris caulinis simillimis obtectae, caule firmo crasso tenaci praeditae; folia caulina e basi

amplexante brevissima *decurrente late ovata, brevissime acuminata, nunquam ligulata*, apice subcrenulata, transversim rugosa, margine erecto, nervo *pallidissimo ad medium evanido*, cellulis ellipticis incrassatis *pallidissimis* ad infimam basin flavidis; perich. e basi late vaginante inferne flavidissima superne pallidissimâ longiuscule reflexe acuminata, enervia, integerrima, longius areolata.

*Patria.* Java: Blume. Hb. Al. Braun.

*N. Plumula* similis, notis cursive impressis toto coelo refugiens, divisionibus inaequalibus flaccidioribus virentibus, basi foliis appressis obtectis primo visu distinguitur.

28 b. *N. cyclophylla* C. Müll.; *dioica*; caulis repens nudus, divisiones erectae strictae firmæ, ramis brevibus parum brevissime ramulosis inaequaliter bipinnatae, palentes, *siccitate subcomplanatae, madore foliis undique insertis et divergentibus patentibus sparsifoliae*; folia caulina angustiuscula, e basi parum latiore amplexante, marginibus paulisper involutis instructâ sensim ligulato-angustata brevissime acuminata, vix crenulata, parum rugulosa, nervo distincto ante apicem evanido percursa, e cellulis rotundatis vel ellipticis pallidissimis, alaribus ad infimam basin vix conspicuis minutis quadratis incrassatis areolata. Caetera desunt.

*Patria.* Java: Blume. Hb. Al. Braun.

Notis designatis sp. facile distinguenda. Fructus forsitan exsertus.

29. *N. crispa* Hdw. II. p. 54.

Br. Europ. Fasc. 44—45. Neckera, p. 9. t. 4.

33. *N. pumila* Hdw. II. p. 56.

Br. Europ. l. c. t. 3.

33 b. *N. Philippeana* Br. Europ. (Fasc. 44—45. Neckera, p. 11. t. 6.); tenella pulchella, ramis pluries divisis, conferte pinnato-ramulosis; folia undulata, dense imbricata, late ovata, apicem versus angustata, in apiculum longiusculum denticulatum flexuosum producta.  $\frac{1}{1}$ .

*Patria.* Prope Laurvig Norvegiae meridionalis: Blytt detexit; in Pyrenaeis, Vallée de Lys prope Bagnères de Luchon ad fagos: Philippe.

An forma *N. pumilae*?

Sectio II. **Entodon** C. Müll. II. p. 59. — Rami compressi complanati, dichotome divisi decumbentes; folia cochleariformi-concava ovata, binervia, e cellulis rhomboidalibus angustis laevibus areolata; theca exserta lateralis.

43b. **N. Bandongiae** C. Müll.; *monoica*; late prostrata pallide virens, angustiuscule complanata, planissima, breviter pinnatim ramosa; folia caulina dense imbricata, madore parum patula, planiuscula, vix concava, *anguste oblonga obtuse lanceolata*, apice *haud obliquo* denticulata, elongate angustissime areolata, cellulis alaribus laxe quadratis pellucidis intus granulosis paucis praedita, *marginē nunquam revoluta*, nervis binis obsoletis brevibus; perich. *haud reflexa longe flexuose acuminata*, basi laxissime reticulata, enervia, subintegerrima; theca in ped. longiusculo flavo erecta *angustissime cylindrica omnino aequalis*, fusca, operc. conico oblique acuminato; perist. d. ext. breviusculi aurantiaci, nodosiuscule remote trabeculati, linea longitudinali hic illic secedente exarati et perforati, ubique striatuli, int. fusci *maxime angustissime lineares*, inferne tantum fissi et hic illic perforati, vix carinati, multo breviores.

*Patria.* Java, in prov. Bandong ad arbores: Zollinger cum *Rhacopilō spectabili* commixtam legit et sub No. 1431 Z. edidit.

Inter *N. Dregeanam* proximam et *pallescentem* sedem tenet; a priori notis designatis certe differt.

48. **N. complicata** C. Müll. II. p. 66.

*Patria.* Matagalpa, Dep. Segovia in Nicaragua, 4500' alt., leg. A. S. Oersted.

61. **N. Perrottetii** C. Müll. II. p. 72.

*Patria.* Java: Blume in Hb. Al. Braun.

Sectio III. **Pterogonium** Schw. Suppl. II. I. p. 33; emend. in Synops. II. p. 74. — Plantae pleurocarpicae pusillae tenellae;

caulis decumbens vage pinnulatus subcompressus; folia homomalla cochleariformia, cellulis amoene oblongis, alaribus pulcherrime vesiculaeformibus flavidis, nervis binis obsoletis; theca exserta minutissima supramatura declinata; perist. pro more simplex.

**69. N. hamata** C. Müll. II. p. 78. — Folia *acumine hamato-reflexa*; theca cylindraceo-oblonga erecta vel rarius subinclinata, operc. conico oblique subulato, ped. ubique scabro.

*Macroblepharum perforatum* Bruch, in Hb. Al. Braun.

*Patria.* Java: Blume. Hb. Al. Braun.

Sectio IV. **Leptohymenium** auct. vel Schw. emend. — II. p. 80. — Plantae pleurocarpicae filiformes tenerae, ramis tenuibus, nec julaceis nec compressis, sparsifoliis, vage ramosae; folia ovata acuminata concava, e cellulis linearibus interdum papillosis composita; theca exserta.

**79. N. pulvinata** C. Müll. II. p. 83.

*Leskea pulvinata* Wahlenb. Br. Europ. Fasc. 44 — 45. Leskeaceae. *Leskea*, p. 3. t. 2.

*Patria.* In salicibus prope Christianiam et in monte Dovrefjeld prope Kongsvold: Blytt. — *Auctumno et vere.*

**79 b. N. perpusilla** C. Müll. — Theca in ped. per brevi fusco vix torto erecta, oblonga parvula, ore siccitate valde madore non coarctata, annulo imperfecto persistente, fusca, sicca subcorrugata, operc. conico oblique rostellato; perist. simplicis dentes interni ciliiformes sedecim haud aequilongi pallidi, madore erecti, sicco statu horizontales, infra orificium oriundi.

*Pterogonium perpusillum* De Not. in Syn. II. p. 84!

*Patria.* Nunc in Germania detecta est a pharmacopola Bertram Halensi, qui prope Düben prov. Saxoniae Borussicae ad corticem Pini pinetum hyeme leni anni 1851. fruct. pulchris maturis legit et nobis determinandam communicavit. E distinctissimis, cum perist. interno fabronioideo!

**83. N. repens** Schw. II. p. 87.

*Leskea repens* Hartm. Sk. Fl. Ed. V. p. 340.

Sectio V. **Leucodon** Schw. II. p. 91. — Plantae pleurocarpicae vel cladocarpicae robustae, caule plus minus, robusto et tereti

densifolio dichotome v. pinnatim ramoso, foliis ovatis acuminatis, basi exauriculatis, plerumque secundis et plicatis, cellulis pro more rotundatis; theca exserta et immersa; perist. simplex, duplex vel nullum.

Subsectio I. **Pterigynandrum** Hdw. emend. II. p. 91. — Caulis siccitate perfecte julaceus, perichaetiis longius exsertis, foliis ovate vel lanceolate acuminatis, saepius cochleariformibus, cellulis oblongis v. linearibus elongatis.

103. **N. cylindricaulis** C. Müll. II. p. 100.

*Patria.* Costa Rica, reg. montosa, 5000—8000' alt.:  
A. S. Oersted.

Subsectio II. **Harrisonia** Spreng. Hmp. II. p. 102. — Caulis teres; theca gymnostoma in ramo brevi veluti terminalis; folia cochleariformi-concava, saepe leviter plicata, cellulis ad parietes crenulatis.

107b. **N. hygrometrica** C. Müll.; *dioica*; caulis fluitans, *basi indivisus*, foliis parvis plerumque laceratis obtectus, *superne in ramos fastigiatos breves rigidos obtusos vel apice brevissime cuspidato praeditos sordide virides dendroideo-divisus*; folia caulina dense imbricata, subsquarrosa et vix secunda, erecto-patentia, e basi coarctata *anguste cymbiformi-lanceolata acuta* brevia, margine *haud limbato integerrimo* erecto, superne involutaceo, nervis nullis, cellulis anguste linearibus densis virentibus, *haud crenulatis*, alaribus coarctato-impressis multis laxissimis amplis pellucidis teneris; perichaetia in ramulo fertili longiscente terminalia, foliis late rotundate ovatis acutis, e cellulis pachydermibus incrassatis longioribus areolatis; ped. perbrevis *carosulus in thecam subcyathiformi-ovalem pachydermem laevem macrostomam sensim incrassatus*; annulus nullus; operc. conicum oblique acuminatum in columella elevata persistens; perist. d. ext. breves fissi rubiginosi rudimentarii, interni nulli.

*Wardia hygrometrica* Harv. in Hook. Companion to the Bot. Magaz. II. p. 183. t. 15. — Schw. Suppl. IV. t. 314.

*Patria.* In lapidibus rivuli montani prope Paradise ad latus orientale montis Tabularis Africae australis:  
Harvey.

Muscus memorabilis, cujus sedes, per multum temporis nobis maxime incerta, juxta *Neckeram Humboldtii* procul dubio vera reperitur. Ab hacce specie characteribus cursive impressis longe differt. An peristomium quoque internum adsit, nobis in speciminibus nostris observare haud licuit. Calyptra, juvenilis tantum observata, ab auctoribus campanulata quidem descripta est, nos tamen ex affinitate magna *N. Humboldtii* dimidiatam esse putamus.

108b. **N. Liebmanniana** C. Müll.; hermaphrodita, antheridiis et paraphysibus copiosissimis, archegoniis perpaucis; folia imbricata, longitudinaliter plicata, acuminato-ovata, theca in ped. abbreviato siccitate dextrorsum torto globosa, deoperculata truncata. †.

*Braunia Liebmanniana* Schimp. in litteris.

*Patria.* Mexico, Pico de Orizaba: Liebmann.

*N. sphaerocarpace* ex auctore affinis, foliis imbricatis autem primo visu distinguitur.

Subsectio III. **Euleucodon** C. Müll. II. p. 107. — Caulis teres v. homomallophyllus, dichotome divisus, perichaetiis longe exsertis, foliis ovate v. lanceolate acuminatis concavis distincte plicatis; perist. simplex vel duplex.

117. **N. sciuroides** C. Müll. II. p. 107.

*Leucodon sciuroides* Schw. Br. Europ. Fasc. 44 — 45. Leucodonteae; Leucodon, c. tab.

132. **N. curtispindula** Hdw. II. p. 115.

*Antitrichia curtispindula* Brid. Br. Europ. Fasc. 44 — 45. Leucodonteae. Antitrichia, c. tab.

131b. **N. octangula** C. Müll.; dioica; *N. Pöppigianae* simillima, sed multo robustior, lutescens; folia caulina multo majora et latiora, grossius areolata et grossius dentata, cellulis supra alares ad alas permultis rotundatis incrassatis; perist. ext. d. late et longe lanceolato-subulati, longitudinaliter distincte exarati vel pertusi, interni obsoleti: membrana altiuscula in dentes rudimentarios fissa.

Pterogonium plicatum Bruch in Hb. Al. Braun.

*Patria.* Java: Blume. Hb. Al. Braun.

131 c. **N. glyphotoeca** C. Müll.; *N. octangulae* similima; folia angustiora; perist. d. int. lineares, simplices, e cellularum paucarum simplici serie compositi, quidam inter se connati in formam ovati fornicis, albid. †.

*Leskea sciuroides* Hook. Musc. Exot. t. 175. — Schw. Suppl. II. II. 1. p. 45. t. 166. — Brid. II. p. 286.

*Patria.* Insula Van Diemen: R. Brown.

A *N. Pöppigiana* peristomio tam externo lato, *N. octangulae* simili, quam interno libero differt.

Subsectio IV. **Lasia** Brid. II. p. 116. — Caulis pinnatim divisus compressus, ramis patentibus rectis, foliis acuminatis laevius plicatis, cellulis oblongis; perichaetia exserta.

Subsectio V. **Leptodon** Brid. II. p. 118. — Caulis compressus, ramis plus minus involutis v. incurvis, foliis rotundato-obtusis, rotundato-areolatis; perich. exserta.

134. **N. Smithii** C. Müll. l. c.

*Leptodon Smithii* Mohr. Br. Europ. Fasc. 44—45. p. 4. c. tab.

Sectio VI. **Spiridens** Nees ab Es. II. p. 120. — Caulis pleurocarpicus procerus pinnatim parce ramosus robustissimus squarrosifolius, foliis basi vaginatis, inde reflexis, late lanceolatis limbatis, rotundate areolatis; theca emersa peristomata.

Sectio VII. **Climacium** Web. et Mohr. II. p. 121. — Caulis primarius repens, divisionibus stipitatis erectis apice dendroideo-ramosis; theca exserta lateralis.

Sectio VIII. **Pseudopilotrichum** C. Müll. II. p. 123. — Caulis primarius repens, secundarius pleurocarpicus plus minus teres, pendulus elongatus pinnatus, rarius decumbens; folia basi auriculata, laevia vel papillosa, lineari-areolata; theca exserta.

Subsectio I. **Orthostichella** C. Müll. II. p. 123. — Folia in seriebus rectis distinctis circa caulem disposita, e cellulis laevibus disposita.

149. **N. rigida** C. Müll. II. p. 126.

*Patria.* Costa Rica, 5000—8000' alt.: A. S. Oersted.

Subsectio II. **Pilotrichella** C. Müll. II. p. 129. — Folia in seriebus indistinctis circa caulem disposita, e cellulis laevibus composita.

156. *N. turgescens* C. Müll. II. p. 131.

*Patria.* Costa Rica, 5000 — 8000' alta: A. S. Oersted.

163b. *N. Buchanani* C. Müll.; caulis pendulus pinnatim ramosus, ramis teretibus; folia densissime imbricata subrotunda concava apice cirrhifera, nervo circa medium evanescente. †.

*Isothecium Buchanani* Brid. II. p. 363. — *Leskea flexilis* Hook. in Trans. of Linn. Soc. IX. p. 320. t. 28. f. 3.

*Patria.* Nepal Indiae, ad arbores: Buchanan sterilem legit.

Ex auctore *N. flexili* synonyma, rectius sentiente *Bridelio* species propria, ab illa nervo praesente jam distinctissima.

Subsectio III. **Papillaria** C. Müll. II. p. 134. — Folia in seriebus indistinctis circa caulem disposita, punctulate papillosa.

165. *N. nigrescens* Schw. II. p. 134.

*Patria.* Costa Rica, inter 5000 — 8000' elev. legit A. S. Oersted 1847. Febr.

166. *N. appressa* C. Müll. II. p. 136.

*Patria.* Brasilia, Sta. Catharina, ad flum. Itajahi: Pabst 1846. sterilem legit ad trunc. arborum.

168b. *N. leuconeura* C. Müll.; *dioica*; caulis primarius repens, secundarius pendulus *longissimus* subpedalis filiformis, in ramos plures pendulos similes divisus, ramulis simplicibus filiformibus attenuatis patentibus vel divaricatis acutis rigidiusculis flexuosis brevibus pinnatus, *sordide luteus*; folia caulina imbricata, madore parum patula, e basi *valde undulato-plicata valde albescenti-areolata*, profunde canaliculata latiuscule *ovato-lanceolata*, *breviter acuminata*, integra, basi obsolete crenulata, pallescentia, minute areolata et papillis creberrimis tenerimis valde punctulata, nervo tenui *pallescente* ante apicem evanido percursa, nunquam cochleariformi-concava, sed supra basin ad apicem usque carinata, margine haud revoluta. Caetera desunt.



*Hypnum rhizobolum* Nees in Hb. Al. Braun.

*Patria.* Java: Blume.

A *N. Deppii* caract. designatis longe differt.

168c. *N. semitorta* C. Müll.; *dioica*; *N. Deppii* simillima, sed sordide lutescens, folia e basi *triplicata* undulato-auriculata *angustâ anguste lanceolata breviter acuminata, acumine semitorto, margine ubique distincte denticulato*, nervo tenerrimo *pallente* brevi. Caetera desunt.

*Patria.* Java: Blume. Hb. Al. Braun.

169b. *N. Oerstediana* C. Müll.; caulis elongatus *attenuato-filiformis*, ramis multis filiformibus *attenuatis* saepius elongatis et iterum ramulosis valde pinnatim divisus, rigidus, sordide viridis v. lutescens; folia caulina appressa rigida, madore erecto-patentia, e basi dilatata, utrinque alis maxime auriculatis parum undulatis erosis circinnatis praeditâ *hastato-lanceolata, speluncoso-plicata et carinata, acumine subtorto brevi latiusculo terminata*, margine hic illic valde revoluta *ubique distincte serrulato* instructa.

*Patria.* America centralis, Costa Rica in reg. montosa, elevatione 5000—8000', ubi mens. Febr. et April. 1847. sterilem legit A. S. Oersted.

A *N. denticulata* proxima, foliis longissime acicularibus jam distante, notis cursive impressis differt.

176b. *N. praemollis* C. Müll.; *dioica*; cespites praemolles intricati aurescentes; caulis parum pendulus crassiusculus dense foliosus mollissimus breviter cuspidatus, ramis brevibus inaequaliter pinnatus, subcaudatus; folia caulina sicca et madefacta imbricata, e basi angustiore, auriculis distinctis laxè reticulatis fuscis parum impressis instructâ, late ovata, subito in acumen longum latiusculum denticulatum rectum acutum producta, nec undulata, marginibus subinvolutaceis integris praedita, tenerrime vix conspicue punctulata, planiusculo-cymbiformia, nervis nullis rarius brevissimis binis, cellulis angustissime prosenchymaticis densissimis in membranam luteam veluti conflatis, vix conspicuis; perich. minora amplexantia, stri-

cta, basi elongate laxe fusce reticulata, margine valde eroso-serrulata; theca in ped. longiusculo rubro laevi recto erecta elliptica majuscula fuscescens, operc. conico oblique subulato; perist. simplicis d. lanceolati patentes albidi leviter articulati fragiles, e basi usque ad apicem perforati, basi in membrana brevissima positi; calyptra glabra.

*Leucodon rufescens* Hsch. et R. Nov. Act. Acad. Caes. Leop. XIV. II. Suppl. p. 712. — C. Müll. Synops. II. p. 120!

*Patria.* Java: Blume, Reinwardt.

Calyptra dimidiata certe erit; junior glabra angustissime subulata observata est. *N. sinuatae* proxima, tamen colore aureo jam primo visu discernibilis.

179. *N. Dozyana* C. Müll. II. p. 141.

*Patria.* Insula Sumbawa Indica, ad arbores c. fructu: Zollinger No. 1432. Z.

179 b. *N. Trachypus* C. Müll.; folia sicca subcrispula, ubique e cellulis incrassatis angustissimis, basi pallentibus laevibus, superne dense et tenerrime punctulatis opacis areolata; theca globoso-ovalis magna brevicolla microstoma; calyptra dimidiata dense pilosa lutescens, pilis longis erectis valde nodosis.

*Pilotrichum Trachypus* C. Müll. Syn. II. p. 162!

*Patria.* Java: Blume. Hb. Al. Braun.

*N. Dozyanae, serrulatae, crispatulae et Wallichii* proxima.

Subsectio IV. *Meteoridium* C. Müll. — Folia laxe imbricata squarruloso-potentia cordato-ovata laevia, indistincte seriata.

Sectio Meteorio generis Pilotrichi affinis.

181 b. *N. remotifolia* Hsch. (in Musc. Mexic. Depp. et Schied. No. 1088.); dioica; caulis longissime repens maxime vage ramosus adhaerens flexuosus flaccidissimus; rami elongati flexuosi flaccidissimi multoties divisi veluti complanati remotifolii amoene viridissimi v. lutescentes; folia caulina laxissime imbricata squarruloso-potentia, saepius veluti bifaria, e basi coarctata latissime cordato-

ovata in acumen longum tenue flexuosum producta, ubique denticulata, planiuscula, tenuiter membranacea, plus minus implana, nervo tenui ultramedio, cellulis angustissime linearibus subconflatis amoene virescentibus, alaribus ad marginem ventricose impressum rectangularibus incrassatis paucis; perich. pallidissima, tenerrime membranacea, e basi late vaginante subito fere in acumen longum flexuosum tenue dentatum producta, ante acumen saepius sinuato-emarginata, enervia, laxissime pellucide reticulata; theca in ped. breviter exserto rubro erecta turgide ovalis majuscula brunnea, latissime annulata, operc. conico oblique subulato concolori; perist. d. ext. robusti ferruginei fragiles, intus lamina flavida valde cristata, int. lati longi hiantes laeves flavi; calyptra late dimidiata pallida, apice scaberula.

*Leskea remotifolia* C. Müll. Linn. XIX. p. 216.

*Patria.* Mexico, Xalapa: Deppe et Schiede. Venezuela, prov. Merida: Moritz.

*Habitu Pilotricho (Meteorio) auronitenti similis et distinctissima species.*

Sectio IX. **Dichelyma** Myrin. II. p. 142. — Caulis fluitans pleurocarpicus et cladocarpicus, ramis falcatis; folia secunda vel falcata, elongate lineari-reticulata.

Subsectio I. **Eudichelyma** C. Müll. II. p. 143. — Rami apice falcati, folia falcato-secunda; theca e foliis perich. ocreato-convolutis contortis emersa; calyptra thecam superans et basi includens.

Subsectio II. **Cryphaadelphus** C. Müll. — Rami stricti, nunquam falcati; folia erecta vix secunda; theca in foliis perich. recte imbricatis immersa; calyptra minuta operculum solum obtegens.

Gen. IV. **Pilotrichum** P. B. II. p. 146.

Calyptra mitraeformis. Perist. Neckerae.

Sectio I. **Distichia** Brid. II. p. 147. — Caulis complanatus, foliis distiche imbricatis, oblongo-lingulatis; theca immersa, neckeroideo-peristomata.

Sectio II. **Fontinalis** Dill. II. p. 148. — Plantae hydrophilae fluitantes elongatae cladocarpicae maxime ramosissimae; caulis

plus minus distincte trifarie foliosus, pinnatus; folia elongate laxe reticulata enervia; theca immersa, peristomio cancellato purpureo vel nullo praedita.

Sectio III. **Meteorium** Brid. II. p. 152. — Plantae pleurocarpicae elongatae pendulae dendrophilae; caulis ubique imbricatim foliosus elongatus pinnatus; folia cordato-amplexicaulia, elongate lineari-reticulata.

Sectio IV. **Cyrtopus** Brid. II. p. 158. — Plantae pleurocarpicae ascendentes robustissimae densifoliae plerumque parce dichotome rarius pinnatim divisae; folia scariosa plerumque plicata ovato-acuminata incrassate elliptice v. elongate areolata; theca exserta et immersa.

**21. P. elegans** C. Müll. II. p. 159.

*Patria.* In monticulis insulae Bima Archip. Indici: Zollinger sub No. 1180. Z. Hookeria. Rarum.

**24. P. elongatum** C. Müll. II. p. 161.

*Hypnum elongatum* Hook. et Wils. Fl. Antarct. I. p. 137. t. 60!

Sectio V. **Cryphaea** Brid. II. p. 163. — Plantae pleurocarpicae vel cladocarpicae, rupicolae v. dendrophilae, dichotome v. pinnatim ramosae, subpendulae; caulis teres; folia cochleariformi-concava v. carinata ovata v. lanceolata, rotundate areolata submollia, nunquam scariosa, basi excisa; theca immersa.

Subsectio I. **Dichotomaria** C. Müll. II. p. 164. — Caulis dichotome divisus; thecae in ramulis brevissimis v. longioribus terminales paucae, gymnostomae globosae.

Subsectio II. **Eucryphaea** C. Müll. II. p. 165. — Caulis plus minus longus distiche pinnatus; thecae peristomatae, plus minus acuminate operculatae, in caule eodem plerumque creberrimae, unilaterales, ovatae v. oblongae.

**40. P. Deppei** C. Müll.

*P. patens* C. Müll. II. p. 171. ob nomen jam abusum deleatur.

**Species non satis notae.**

**1. Cryphaea leiophylla** Schimp. (in Bryol. Europ. Fasc. 44—45. Cryphaeaceae. Cryphaea, p. 5.); folia siccitate haud plicata subnitida, perich. aristata.

*Patria.* Mexico: Liebmann.

**2. Cr. attenuata** ej. l. c.; caulis elongatus filiformis pinnatus, pinnulis attenuatis.

*Patria.* Mexico: Liebmann.

Probabiliter ad *Pilotrichum decurrens* nob. revocandum est.

3. **Cr. apiculata** ej. l. c.; folia sicca et humida e basi imbricante patula, longe apiculata.

*Patria.* Mexico: Liebmann.

4. **Cr. pinnata** ej. l. c.; *Cr. patente* minor, foliis mollioribus, apice minus dentatis, perich. brevius acuminatis, theca brevior oviformi.

*Patria.* Mexico: Liebmann.

Subsectio III. **Dendropogon** Schimp. II. p. 173. — Caulis elongatus pendulus, ramis alternis toto ambitu dispositis pseudo-pinnatus; thecae in ramis elongatis terminales peristomatae ovatae vel oblongae.

Sectio VI. **Eupilótrichum** C. Müll. II. p. 177. — Caulis dendroideo-pinnatus frondiformis pendulus; folia incrassate rotundato-areolata, cochleariformia; nervi dorso calloso-prominentes et spinaeformes e dorso folii excedentes bini.

Sectio VII. **Pteróbryum** Hsch. II. p. 179. — Caulis primarius repens, secundarius erectus inferne nudus, superne dendroideo-pinnatus, densifolius; folia ubique inserta, cymbiformi-concava, longitudinaliter plicata v. laevia, 1—2-nervia; nervi tenues haud callosi.

62b. **P. splendens** C. Müll.; *P. convoluto* simillimum, sed divisiones pusillae dense eleganter pinnatae, ramis brevissimis strictis subsimplicissimis subtruncatis, nec attenuatis breviter incurvo-cuspidatis, splendidissimae, rigidae pallescentes; folia caulina e basi brevissima angustiore fuscâ oblongo-lanceolata, planiuscula, nunquam convoluta, margine integerrimo vel apice obsolete crenulato, erecto, cellulis maxime angustissimis densis pallentibus longiusculis, basi et ad alas basilares quadratis intense fuscis paucis, nervis binis obsoletis inaequaliter longis, saepius veluti in unum conflatis, pallentibus, tenuissimis.

*Neckera splendens* Hsch. et Reinw. in Nov. Act. Acad. Leop. XIV. II. 1829. p. 714!

*Patria.* Java: Blume, Reinwardt. Hb. Al. Braun.

Sectio VIII. **Erpodium** Brid. II. p. 184. — Plantae cladocar-picae humillimae pusillae tenellae parce divisae, subcompressae v. teretes; folia ovate acuminata, e cellulis laxis amplis bryoideo-rhomboidalibus composita; theca gymnostoma exserta minuta.

Gen. V. **Aulacópilum** Wils. II. p. 186.

Calyptra dimidiata, thecam omnino obtegens et basi more Calymperis includens, plicata; theca gym-nostoma.

Subtribus II. HYPNACEAE. II. p. 186.

**Peristomium** internum ciliis interpositis.

Gen. VI. **Hookeria** Sm. II. p. 187.

Calyptra mitraeformis. Perist. Hypni.

Sectio I. **Euhookeria** C. Müll. II. p. 187. — Cellulae fo-liorum laxae laeves; folia acuminata pellucida, amoene reticulata, marginata, nervis callosis; caulis decumbens complanatus.

6b. II. **Blumeana** C. Müll.; *hermaphrodita!* *H. albi-canti* simillima, sed folia late oblonga obtusiuscula brevi-ter acuminata, flaccida, varie concava, limbo ubique te-nuissimo albido, haud incrassato, apice *distincte denticu-lato, nec angulato*, cellulis ubique magnis amplis, *nec elongato - rhombeis, flaccidis, pellucidis inanibus, facile emollientibus*, nervis ante apicem spinae forma abruptis laevibus pallidis *crassiuscule callosis*; perich. e basi late vaginante obsoletinervi longiuscule acuminata, sublimbata integerrima; theca in ped. purpureo laevi apice arcuato nutans, obconica *majuscula* brunnescens, longe recte su-bulato - operculata; perist. d. ext. *H. laete-virentis*, in-terni illos aequantes lutei punctulati, scalari-perforati, ciliis rudimentariis; calyptra *H. albicantis*.

*Patria.* Java: Blume. Hb. Al. Braun.

Sectio II. **Lepidópilum** Brid. II. p. 192. — Cellulae folio-rum elongatae plus minus densae et angustae laeves; folia immar-

ginata, nervis plerumque tenuibus vix callosis, interdum nullis; caulibus decumbens pinnatim complanatus.

30 b. **H. raphidostega** C. Müll.; *dioica*; cespites humiles prostrati pallide virides; caulis mollis *humilis sub-simplex* indistincte angustiuscule complanatus; folia caulina *symmetrica, oblongo-lanceolata, longitudinaliter plicata, inaequalia, profunde concava*, subintegerrima, rarius apice obsolete denticulata, *marginè medio valde revoluta*, nervis binis tenuibus subcallosis ante apicem evanidis pallidis percursa, e cellulis elongatis laxiusculis mollibus, superne utriculo primordiali longitudinaliter plicato virentibus et angustis densis reticulata, ad innovationes angusta profunde canaliculata contorta acuminata; omnia ad basin infimam cellulis laxis fuscis praedita; perich. minora lanceolato-acuminata obsoletinervia; theca in ped. brevi rubro ascendente laevi erecta elliptica carnosissima fusca, exannulata, operc. conico acuminato acuto recto aurantiaco; perist. d. ext. lanceolato-subulati, *lamina externa flavida inferne lata trabeculata, superne in subulam tenuissimam interruptam producti, lamina interna inferne cristata, superne lam. externâ multo latior valde rugulosa*; dentes interni in membr. brevi aequilongi pallidi; calyptra thecam dimidiam obtegens glabra, basi laciniata.

*Patria.* Java: Blume. Hb. Al. Braun.

A congeneribus ob notas laudatas distinctissima, *H. Deppeanae* habitu dissimilis. Fol. perig. perichaetialibus obtusiora.

Sectio III. **Eriopus** Brid. II. p. 201. — Cellulae densae v. laxae elongatae laeves; folia toto ambitu inserta, sparsa remota magna, haud distiche imbricata, nervis tenuibus, haud callosis, interdum nullis; caulis repens, ramis ascendentibus erectis, haud complanatis.

Subsectio I. **Pterygophyllum** Brid. II. p. 201. — Plantae subcomplanatae.

Subsectio II. **Eriopus** Brid. II. p. 205. — Plantae sparsifoliae.

42 b. **H. spinosa** C. Müll.; *H. flexifoliae* simillima, sed parum robustior; folia caulina *valde remota*, sicca valde

spiraliter contorta, madore undulata, e basi angustata brevissimâ *latissime ovato-acuminata*, acumine longe spiniformi coronata, margine dentibus longis spinosis inaequalibus ciliato-serrata, e cellulis ubique laxissime rhombeis reticulata, pellucida, immarginata. Caetera desunt.

*Patria.* Java: Blume. Hb. Al. Braun.

Sectio IV. **Hypnella** C. Müll. II. p. 208. — Cellulae densae elongatae laeves vel papillosae; folia toto ambitu inserta, dense imbricata, nervis callosis v. tenuibus; caulis compressus v. teretiusculus, haud complanatus.

Subsectio I. **Omaliadelphus** C. Müll. II. p. 208. — Caulis robustus plus minus compressus, foliis dense appressis rectis.

Subsectio II. **Euhypnella** C. Müll. II. p. 211. — Caulis tenellus anguste complanatus vel teres, foliis dense appressis rectis.

58. **H. leptopoma** C. Müll. II. p. 215. — Folia brevissime binervia.

*Trachypodium lutescens* Bruch. in Hb. Al. Braun.

*Patria.* Java: Blume primus legit.

Subsectio III. **Cupressinadelphus** C. Müll. II. p. 215. — Caulis tenellus compressus, foliis dense appressis falcato-homomallis.

Sectio V. **Callicostella** C. Müll. II. p. 216. — Cellulae foliorum parvae magis aequales v. incrassatae rotundatae laeves v. papillosae; folia ligulate oblonga immarginata, nervis callosis; caulis decumbens compressus.

β. Pedunculus scaber.

67. **H. papillata** Mont. II. p. 219.

68b. **H. Prabaktiana** C. Müll.; *hermaphrodita*; *H. scabrisetae* simillima, sed sordide viridis angustius complanata, folia caulina robusta caviuscula, e basi angusta brevissimâ *late ovato-ligulata*, obtusata, breviter acuminata, *apice serrulata*, e cellulis ubique mollibus grossiusculis, ad infimam basin pellucidis teneris, superne virentibus pachydermibus, laevibus, plus minus pellucidis areolata, nervis binis pallidis, ad apicem folii spinae forma abruptis, dorso *sublaevibus*; perich. breviora, e basi amplexante *late ovata obtuse lanceolata cymbiformia*, in-



tima breviora subnervia, omnia integerrima, tenuiter pellucide reticulata; theca in ped. longiusculo purpureo *inferne parum superne magis scabro* horizontalis, subgibbose oblonga, ore coarctata, brunnescens, angusta, collo curvato, operc. cupulato longe suboblique subulato, annulo latiusculo; perist. d. ext. angusti, longe subulati, purpurei, linea longitudinali latiuscula flavida exarati, ad latera valde cristati, inflexi, int. flavidi, tenerrime punctulati, latiusculi, superne maxime compressi, vix perforati, illos aequantes, ciliis rudimentariis, vel nullis; calyptra brunnea basi multifida.

*Patria.* Java, ad terram humidam montis Prabakti: Zollinger sub nom. *Hypnum reticulatum* Dz. et Molkb.? sub No. 3503 Z. In Hb. Al. Braunii a Blume ad Sadjra in flumine lectam observavimus.

Ab *H. papillata* foliis obtusis laevibus jam recedit.

69b. **H. Oerstediana** C. Müll.; *hermaphrodita*; *H. pallidae* simillima, sed tenerior, folia teneriora, e cellulis *ubique minutis* areolata, nervis *rufescentibus* vix vel parum dorso scabris; theca in ped. mediocri scaberrimo horizontalis, e collo brevissimo *aequaliter oblonga*, ore *minori aequali*, *haud coarctato arcuato-obliquo*; perist. brevis d. ext. rufescentes, linea longitudinali flava latiuscula exarati, intus valde cristati, involuti, int. flavidi illos aequantes angustissimi, superne perforati *pallide aurantiaci*, *haud flavissimi*, *tenerrime punctulati*, *haud laevissimi*, ciliis singulis maxime rudimentariis; calyptra superne scabriuscula, basi multifida, pallida.

*Patria.* Costa Rica Americae centralis, in reg. montosa inter 5000 — 8000' ped. elevationis, mens. Febr. 1848. leg. A. S. Oersted.

Gen. VII. **Hypnum** Dill. II. p. 223.

Calyptra dimidiata. Perist. duplex; externi d. 16 lanceolati, e lamina duplici, externa linea longitudinali exarata, interna plus minus lamelloso-cristata.

stata compositi, trabeculati; interni totidem in membrana plus minus exserta carinato-plicata lanceolati, integri vel hiantes, ciliis 1 — 4 interpositis, saepius rudimentariis sed ex suis cellulis membranae basilaris facile cognoscendis.

• I. *Folia bifariam imbricata.*

Sectio I. **Dendroglossophyllum** C. Müll. II. p. 223. — Caulis erectus, inferne indivisus stipitatus, superne dendroideo-pinnatus, ramis compressis; folia plus minus ligulato-oblonga, rotundata vel elliptice areolata.

13 b. **H. deflexum** Wils. (in Stephens. Musc. Nov. Seel. Exs.); *dioicum*; caulis longe repens, nudus anceps; divisiones decumbentes vel erectae *inferne nudae ancipites, superne ramis copiosis, prioribus anguste senioribus tenuissime complanatis longissime filiformi-protractis, deflexis* dendroideo-ramosissimae, rigidae, virentes; folia caulina dense disticha, profunde cymbiformi-oblongo-ovata breviter acuminata, integerrima, basi vix excavata, margine ubique erecto, nervis binis vix callosis igitur parum conspicuis ad medium usque productis, cellulis angustissimis pallide virentibus chlorophyllosis, alaribus paucis quadratis parvis chlorophyllosis vel rarius incrassatis fuscis; folia ramorum filiformium minuta enervia, ad caulem crassum posita, magis cochleariformia.

*Patria.* Nova Seelandia: W. Stephenson 1843. sterile legit.

Notis laudatis facile discernibile.

Incerta species.

1. **Leskea angustifolia** Tayl. (Lond. Journ. of bot. 1847. XX. p. 379.); caulis exiguus erectus subramosus, ramis flexuosis pallide luteo-viridibus nitidis; folia laxè disticha, ex angusta basi lineari-oblonga obtusa apiculata apice dentata ruptinervia substriata, ad ramorum apices arcte compressa, ad basin eorum minuta vel subnulla. †.

*Patria.* In *Danaea alata* Sm. Jamaicae.

Caulis lineas quatuor longus, interdum apice in ramum flagelliformem vix foliosum prolongatus. *Mnio* (*Rhizogonio*) *Novae Hollandiae* species simillima declaratur. An *Hymenodon*?

Sectio II. **Glossophyllum** C. Müll. II. p. 229. — Caulis planissimus decumbens vel erectus, dichotome v. pinnatim ramosus, compressus, e basi jam foliis magnis obtectus; folia ligulato-oblonga bifariam imbricata planiuscula, elliptice areolata laevia.

Subsectio I. **Spathularia** C. Müll. II. p. 229. — Caulis decumbens pinnatus; folia spathulato-ligulata.

14. **H. trichomanoides** Schreb. II. p. 229.

*Omalia trichomanoides* Br. Europ. Fasc. 44—45. Neckeraceae. *Omalia*, c. tab.

Subsectio II. **Euglossophyllum** C. Müll. II. p. 231. — Caulis decumbens dichotome ramosus; folia ligulato-acuminata laevia.

Sectio III. **Omalia** Brid. II. p. 233. — Caulis decumbens dichotome vel pinnatim ramosus compressus vel complanatus; folia ovato-acuminata, elongata reticulata, saepius secunda.

Subsectio I. **Vesicularia** C. Müll. II. p. 233. — Caulis hookerioideus eleganter pinnatus; folia laxe reticulata, plerumque asymmetrica, laevia, binervia vel enervia.

30 b. **H. aneurodictyon** C. Müll.; *dioicum*; prostratum brevissimeum *pallidissimum*, primum virens, complanatum, irregulariter pinnatum, appressum, *flaccidum*; folia caulina patula, *siccitate haud contorta*, *flaccida*, e basi angustiore oblonga longe cuspidato-acuminata, enervia, integerrima, planiuscula, elongate laxe pellucide reticulata; perich. breviora angustiora longius cuspidata; theca in ped. mediocri purpureo, *apice inclinato scaberulo subhorizontalis*, *angustissime obconico-oblonga*, *basi annulate strumosa*, *longissime subulate oblique operculata*, fusca, medio coarctata, anguste cucullate calyptrata; perist. d. ext. angusti rufi, intus cristati, linea longitudinali lutea valde exarati, int. angusti lutei imperforati, apice subpunctulati, ciliis singulis rudimentariis.

*Patria.* Java: Blume. Hb. Al. Braun.

Ab *H. reticulato* colore pallidissimo, ab *H. verrucoso* theca longissime operculata, ab *H. cuspidatifolio* et cri-

*nitifolio* foliis nunquam contortis, ab *H. sphaerocarpo* colore et thecae forma primo visu jam distinguitur.

Subsectio II. **Euomalia** C. Müll. II. p. 243. — Caulis plus minus robustus, dichotome divisus; folia plerumque angustius reticulata, symmetrica, laevia, rarius secunda, 1—2-nervia.

### I. *Folia uninervia.*

46 b. **H. contorte-operculatum** C. Müll.; *monoicum*; cespites dense prostrati deplanati pallide virides; caulis arcte adhaerens flexuose repens dichotome divisus longiusculus, anguste complanatus; folia siccitate maxime patula remotiuscula *subcontorta ascendentia*, madore planissima appressa, e basi angustiore vix complicata igitur subasymmetrica, e cellulis alaribus laxiusculis pellucidis chlorophyllosis reticulatâ oblonga *breviter acuminata* integerrima, elongate laxiuscule reticulata, virescentia, nervo unico dimidiato; perich. minora, lanceolata, longius acuminata, *appressa*, pellucidiora, laxius reticulata, *nervo saepius obsoleto*; theca in ped. *elongato* intense fusco laevi tortili tenui erecta *angustissime cylindrica longiuscula*, intense fusca, sicca cartilaginea, exannulata, operculo *subulato contorte obliquo*; perist. d. ext. angusti *rubiginosi fragiles*, interni breves *angustissimi subciliiformes* lutei, ciliis singulis rudimentariis vix conspicuis.

*Patria.* America centralis, Costa Rica, in reg. montosa inter 5000 -- 8000 ped., mens. Febr. et Apr. 1847. legit A. S. Oersted.

Ab *H. seminervi* simili notis designatis et ab omnibus congeneribus operculo contorte obliquo primo visu differt. Habitus *H. denticulato* haud dissimilis.

### II. *Folia binervia vel enervia.*

77 b. **H. Chrismari** C. Müll.; *monoicum*; *tenerrimum flaccidissimum* late prostratum intertextum pallide virens, ramis *longissimis flexuosis flaccidissimis nitidulis laxifoliis perangustis*, saepius breviter divisus; folia caulina *laxe distichacea*, siccitate et madore patula, symmetrica, longe ovato-acuminata cuspidata, *flaccidissima leviter pli-*

*cata, integerrima, caviuscula, e cellulis elongatis angustis pellucidis laxiusculis, basi vix quadratis reticulata, parum flexuosa, obsolete binervia, ramulina enervia; perich. basi magis vaginantia, paulisper laxius reticulata, haud plicata; theca in ped. longissimo flaccidissimo gracillimo rubente laevi inclinata, magna oblonga timmioides, vix arcuata, olivacea erythrodontia, dein fusca, robusta; perist. d. ext. robusti lati longi rufi, intus parum cristati, interni lati aurantiaci laeves imperforati, ciliis binis cohaerentibus pallentibus interjectis.*

*Patria.* Mexico, prov. Mechoacan, Cerro San Andres, Mart. 1849.: v. Chrismar.

Characteribus descriptis distinctissimum, *H. trichophoro* haud dissimile.

Subsectio III. **Sigmatella** C. Müll. II. p. 263. — Caulis angustus pinnatim divisus; folia lineari-areolata, papillis obtecta, prae-terque binervia.

86b. **H. bartramio carpum** C. Müll.; *dioicum?* repens prostratum anguste complanatum luride albidum intertextum, ramis brevibus subsimplicibus compressis obtusiusculis pinnatum; folia caulina dense distichacea, brevia, latiuscule ovato-ligulata rotundato-obtusata, concava, margine erecto, ob papillas dorsum folii obtegentes ciliato-elevatas apice truncatulas hyalinas breviter fimbriato-dentato, nervis binis subcallosis pallidis breviusculis laeviusculis, cellulis angustissime linearibus, praeter papillas illas majores sparsas tenerrime seriatim punctulatis, pallidis, basi laxioribus pellucidis; perich. magis plicata et magis lanceolato-ligulata, basi ovata laxius reticulata obsoletinervi praedita; theca in ped. longissimo rigido rubro subinclinata, e collo brevissimo gibboso-globosa bartramioidea plagiostoma majuscula, late annulata, fusca, operc. brevissime conico; perist. d. ext. lati longi pallidi intus cristati, linea media tenuissima exarati, int. pellucidi.

*Patria.* Java: Blume. Hb. Al. Braun.

*H. truncato* simillimum, sed characteribus laudatis distinctissimum et memorabile. Perist. internum imperfectum vidimus.

100b. **H. Plumularia** C. Müll.; *hermaphroditum*; caulis longe adrepens tenuissimus, ramis appressis brevibus aequalibus amoene laxè plumosis complanatis angustissimis tenellis tenuibus, eleganter ramosus, ob ramos ad latus unicum spectantes prostratos indistincte pinnatus; folia caulina eleganter plumose disticha, laxa, e basi anguste oblonga longe acuminata subflexuosa, caviuscula, brevissime binervia, margine erecto ubique denticulato, cellulis angustissimis indistinctis sparsim tenuiter papillo-sis; perich. minora, basi magis vaginante; theca in ped. ramos breves vix superante rubro superne vix scabro erecta, anguste cylindrica brevis tenella fusca erythro-stoma, tenuiter reticulata, operc. cupulato oblique rostel-lato rubro; perist. d. ext. longiusculi anguste subulati, parum cristati, rufi, int. longe capillares rufi laeves arti-culati, ciliis singulis rudimentariis.

*Patria.* Java: Blume. Hb. Al. Braun.

Characteribus laudatis distinctissimum, *H. microthecae* sectionis *Plumulariae* simile.

104b. **H. mammosum** C. Müll.; *monoicum*; *H. stisso-phyllo* simillimum, sed parum compressum, lutescens, theca in ped. longiore e medio jam valde papilloso erecta vel vix inclinata, papillis magnis luteis maxime mam-mosa, deoperculata minutissime pyriformis vel globosa, microstoma, nunquam coarctata; perist. d. ext. densissimi breves rufi, linea tenui longitudinali exarati, intus valde cristati, carnosuli, int. angusti breves punctulati sublutei, ciliis singulis rudimentariis.

*Patria.* Java: Blume. Hb. Al. Braun.

Subsectio IV. **Taxicaulis** C. Müll. II. p. 277. — Caulis tenellus plumulose foliosus; folia vix vel parum secunda, elongate angustissime areolata, laevia, binervia.

112b. **H. curvicollum** C. Müll.; *monoicum*; gracillimum deplanatum depressum pusillum tenellum lutescens brevissime ramosum intricatum; folia caulina laxè conferta, madore planissima, perangusta, lanceolato-acumi-nata, caviuscula et regularia stricta vel subcomplicate con-

*cava et asymmetrica oblique acuminata*, enervia subintegerrima, margine haud vel vix revoluta, cellulis elongatis angustissimis pallidis, nunquam basi flavidis, alaribus paucissimis quadratis laxiusculis pellucidis; perich. intima e basi latiore concava vaginatâ longissime lanceolato-sulcata subdenticulata enervia subhyalina vel basi flavida et laxius reticulata tenera, intimum interdum apice irregulariter emarginatum et obtusatum; theca in ped. longiusculo rutilante laevi gracillimo *apice in collum curvatum incrassato horizontalis*, interdum pendula, minutissime obovata, deoperculata ore maxime coarctata, olivacea, dein fusca, operc. cupulato oblique rostellato aurantiaco tenero, annulo nullo; perist. breve *H. gracillimi*.

*Patria.* Brasilia, insula S. Catharinae, ad trunc. arbor. vetustos in sylvis montosis pr. Destero, m. April. et Maji, 1847.: P a b s t.

Ab *H. gracillimo* proximo statura parum robustiore et notis laudatis, ab *H. brachyneuro* foliis basi nunquam flavidis jam differt.

Subsectio V. **Cupressina** C. Müll. II. p. 289. — Caulis complanatus, ramis falcatis uncinatis pinnatim ramosus; folia distincte falcata, elongate lineari-areolata, binervia, laevia.

**141. H. fertile** Sendtn. II. p. 293.

*Patria.* In truncis putridis Sylvae Nigrae ad m. Feldberg rarissimum, Jul. 1850.: A. Braunn.

**185. H. Molkenboerianum** C. Müll. II. p. 317. — Caulis turgescens et *H. falcato* haud dissimilis, humilis, apice falcatus.

*H. micans* A. Br. Hb.

*Patria.* Java: Blume primus legit.

**Incertae sedis.**

**1. H. Sauteri** Schimp. (in litt. ad Sauter!); cespites arcte adhaerentes *tenuis* densissimi; caulis *pusillus tener* appressus ascendens simplex, rarius pinnatus, teretiusculus, apice incurvus; folia subimbricata, pallide viridia vix fuscescentia, e basi *late ovata subcordatâ lanceolato-su-*

bulata integerrima, circinnato-falcata secunda, subnervia, apice flaviora; perich. laevia elongata; theca in ped. brevi laevi *minuta subcylindrica suberecta*, ore contracta. †.

Sauter in Regensb. Diar. Bot. 1850. p. 445.

*Patria.* Ad rupes calcareas humidas prope Reichenhall Pinzgoviae, ad viam „in der Nähe der Soolenleitung auf der Höhe des Nesselgrabenberges” 1848. auctumno detexit A. Sauter.

Ab *H. cupressiformi* proximo ex observante Sauter notis designatis longe distans.

## II. *Folia multifariam toto ambitu caulis imbricata.*

Sectio IV. **Mallacodium** C. Müll. II. p. 320. — Caulis dichotome vel pinnatim divisus, decumbens vel assurgens, mollis; folia elongate pellucide areolata, nunquam papillosa et statu scarioso ipso mollia.

Subsectio I. **Drepanocladus** C. Müll. II. p. 321. — Caules ramique uncinati; folia distincte falcata uncinata, elongate lineari-areolata, laevia, uninervia.

Subsectio II. **Aptychus** C. Müll. II. p. 325. — Caulis vage ramosus, ramis ascendentibus confertioribus; folia concava, erecto-patentia, plus minus secunda, 1—2-nervia, laevia, estriata vel ob marginem revolutum utrinque semel plicata.

198 b. **H. chrysostegum** C. Müll.; *monoicum*; cespites humiles densi lutescentes, *H. Kegeliano* haud dissimiles, sed caulis *vix compressus*, apice *parum incurvus*, haud *uncinatus*, *subtenellus*, *gracilior*; folia *parum secunda*, *anguste oblongo-acuminata*, *nunquam asymmetrica*, e cellulis *pallidioribus tenerioribus*, apice *haud ellipticis*, *sed ubique aequalibus areolata*, margine *anguste reflexa*, integerrima, nervis binis *obsoletissimis brevissimis*, basi *flavicantia*, cellulis alaribus *distinctissimis majoribus* amoene *flavidis vesiculaeformibus*; perich. *parum longius acuminata*, basi *valde flavida*, *distincte binervia*, intima *minora enervia*; theca in ped. *breviusculo rutilante laevi tenero erecta* vel ob pedunculum *superne parum curvatum vix inclinata*, *minuta tenella obconica*, *madore mi-*



*nute oblonga*, exannulata, olivacea, dein fusca, operc. e cupulata basi longe oblique subulato aureo; perist. d. ext. breves angusti pallidi, intus *valde cristati*, int. aequilongi angustissimi solidi flavidi, ciliis binis breviusculis interpositis.

*Patria.* Venezuela, Galipan, ad truncos arborum putridos, 4000' alt., m. Aug. 1849.: Wagner. Inter *H. reptans* specimina nonnulla legimus.

Subsectio III. **Isothecium** Brid. II. p. 356. — Caulis decumbens vage ramosus plus minusve robustus; folia ovato-lanceolata vel acuminata, distincte plicata, e cellulis elongatis mollibus areolata, erecto-conferta, plus minusve subsecunda, plumose imbricata.

**279. H. Vaucheri** Lesq. II. p. 372.

*Patria.* Sylva nigra, in lapidibus umbrosis calcareis montis Schönberg prope Freiburg, 1850.: A. Braun.

Subsectio IV. **Illecebrina** C. Müll. I. p. 373. — Caulis decumbens illecebrinus vage ramosus turgidus plus minus julaceo-teres; folia estriata.

**286. H. illecebrum** L. II. p. 376.

*Patria.* In sylvis sublustribus collium montis Sylvae Nigrae Germaniae pr. Freiburg in terra, rarissimum: A. Braun 1850.

Subsectio V. **Cuspidaria** C. Müll. II. p. 378. — Caulis erectus vel assurgens, ramis turgidis cuspidatis.

**301 b. H. sigmatodontium** C. Müll.; *hermaphroditum*; *H. pungenti* maxime simillimum; sed statura laxius foliosa et minus cespitosa, *folii cellulae haud conflatae*, minus pallidae; perist. d. int. *latiusculi pallidi valde punctulati*, nec angustissimi flavi laevissimi.

*Patria.* Java: Blume. Hb. A. Braun.

Ab *H. strepsiphyllo* simili primo aspectu pedunculo perbrevis et infloresc. hermaphrodita differt.

**301 c. H. Braunii** C. Müll.; *dioicum!* cespites densi mollusci sordide lutescentes; caulis maxime breviter vage ramosus tener facillime emolliens, micans, apice curvato

brevi secundifolius; folia caulina valde patentia subsecunda, laxe imbricata, brevia, e basi planiuscula dilatato-lanceolata truncato-amplexante vix reflexâ in subulam brevem perangustam acutam convolutam attenuata, angustissime lineari-areolata, cellulis alaribus magnis aureis vesiculaeformibus praedita; perich. e basi vaginanti-oblonga apice obtusa et eroso-crenulata subito in acumen breve rectum attenuata, basi laxius, flavide et pellucide reticulata; theca in ped. brevi superne papilloso rubente inclinata, minute ovalis rubens; perist. parvi d. ext. lutei, intus cristati, linea longitudinali tenui exarati, int. angusti lutei laeves perforati, ciliis singulis hyalinis interpositis.

*Leskea secunda* Al. Br. Hb.

*Patria.* Java: Blume.

Ab *H. sigmatodontio* characteribus illustratis, ab *H. strepsiphyllo* pedunculo brevi distincte papilloso, ab *H. pycnophyllo* foliis brevibus strictis jam facile distinguitur.

302. *H. hermaphroditum* C. Müll. II. p. 388.

*Patria.* Java: Blume primus legit. Hb. Al. Braun.

305 b. *H. scalare* A. Br. (Hb.); procumbens lutescens; caulis repens, ramis humilibus patentifoliis vel caudato-filiformi-attenuatis appressifoliis; folia caulina perangusta, elongate lanceolato-acuminata, inferne concava, margine subrevoluta, ad acumen subcuspidatum planiuscula margine denticulata, dorso elevate sparsim papillosa, pallescentia, enervia, e cellulis angustissimis subserpentinis densissimis in membranam veluti striatam subconflatis, utrinque tribus vesiculaeformibus maxime intense atrofusis; folia rami caudati linearia angustissima.

*Patria.* Java: Blume.

Species ob cellulas alares colore atro-fusco opacas memorabilis, areolatione *H. aurei* et habitu *H. pungentis*, notis illustratis nulla alia confundenda, ab *H. pungente* affinibusque foliis margine revolutis refugit.

Subsectio VI. *Plumularia* C. Müll. II. p. 393. — Plantae tenellae, plumulose foliosae; rami assurgentes teneri; folia angusta elongate areolata laevia.

321 b. **H. minutirameum** C. Müll.; *monoicum*; *H. in-  
torto* simillimum, *pallidum*, vel parum lutescens; folia *ob-  
longo-acuminata*, *integerrima*, *magis plana*, *latiora*, sae-  
pius inaequalia, e cellulis *pallidissimis* elongatis angustis-  
simis molluscis areolata; perich. *longissime cuspidata in-  
tegerrima*; theca in ped. *brevi* horizontalis *minutissima*,  
*oblonga nec urceolata*, breviter conico-operculata; perist.  
d. ext. breves angusti lutei, int. flavidi *imperforati an-  
gustissimi*, breves laeves, ciliis 1—2 interjectis hyalinis.

*Patria.* Java: Blume. Hb. Al. Braun.

Subsectio VII. **Capillaria** C. Müll. II. p. 408. — Caulis ca-  
pillaris, ramis capillaribus; folia appressa vel plumulose imbricata.

343. **H. Helicodontium** C. Müll.

*H. tenuirostre* C. Müll. II. p. 411. ob nomen jam abusum de-  
leatur.

Sectio V. **Rigodium** Kze. II. p. 418. — Caulis dichotome  
vel pinnatim ramosus, decumbens vel assurgens, rigescens, firmus,  
saepius inter folia caulina filis teneris in folia transeuntibus obtectus;  
folia scariosa vel firma, plerumque tenerrime papillosa, e cellulis  
brevibus densis firmis areolata.

Subsectio I. **Drepanophyllaria** C. Müll. II. p. 418. —  
Caulis decumbens vel ascendens, dichotome vel pinnatim ramosus,  
apice ut rami uncinatus vel curvatus; folia falcata, nunquam squar-  
rulosa.

Subsectio II. **Homomallia** C. Müll. II. p. 425. — Caulis  
ascendens, dichotome ramosus, apice recto; folia plus minus secunda,  
nunquam falcata, nunquam squarrulosa.

Subsectio III. **Strigodium** C. Müll. II. p. 434. — Caulis de-  
cumbens vel ascendens strigosus dichotome vel pinnatim divisus;  
folia squarrulose patentia, secunda.

381 b. **H. malacobolum** C. Müll.; *dioicum*; cespites  
*rigido-mollusci* sordide lutescentes procumbentes; caulis  
vage pinnatim ramosus, superficie glabra, ramis inaequa-  
libus *arcuato-flexuosis apice curvatis*, gracilibus; folia  
caulina squarrosulo-subsecunda, e basi *late hastato-cor-  
datâ lanceolato-acuminata*, *acumine obliquo longiusculo*  
*terminata*, *plicata*, ubique denticulata, cava, margine  
erecto, nervis binis brevibus obsoletis, cellulis angustis-

simis lutescentibus brevibus sparsim subpapillosis, duris, alaribus vix ullis minutissimis, perich. valde exserta squarrosa, e basi late vaginante pellucidius et laxius reticulata in acumen reflexum longissimum producta, *superne eroso-dentata*; theca in ped. *breviusculo* rubro laevi *ubique recto inclinata, nunquam nutans, brevis turgide ovalis atro-fusca*, macrostoma; perist. robusti d. ext. lati rufi, int. in membrana alta lutea laevi lati lutei pertusi ciliis hyalinis appendiculato-nodosis interjectis, longis.

*Patria.* Java: Blume. Hb. Al. Braun.

Ab *H. macrocarpo* proximo notis datis longe differt, e foliorum forma *H. flagellari* affinius.

Subsectio IV. **Anacamptophyllum** C. Müll. II. p. 439. — Caulis ascendens dichotome vel pinnatim ramosus; folia reflexo-squarrosa.

Subsectio V. **Bigodium** Kze. II. p. 444. — Caulis maxime vage ramosus, plerumque valde intricatus; folia remote disposita patentia, haud plicata.

Subsectio VI. **Plicaria** C. Müll. II. p. 444. — Caulis pinnatim vel vage dichotome ramosus, decumbens; folia distincte plicata, rarius subsecunda.

Subsectio VII. **Julia** C. Müll. II. p. 465. — Caulis ascendens, foliis cochleariformibus dense appressis, nunquam secundis, perfecte teres, filiformis.

Sectio VI. **Theliphyllum** C. Müll. II. p. 468. — Caulis ubique foliosus, ramis dichotomis v. pinnatis, superficie inter folia filis in folia transeuntibus plerumque oblecta; folia rotundate areolata, ob papillas plerumque opaca, saepius carnosa.

Subsectio I. **Anomodon** Hook. emend. II. p. 468. — Caulis vage ramosus.

**434. H. polycarpum** Hoffm. II. p. 469.

*Leskea polycarpa* Ehrh. Br. Europ. Fasc. 44—45. Leskeaceae. Leskea, p. 2. t. 1.

**436. H. nervosum** C. Müll. II. p. 470.

*Leskea nervosa* Myrin. Corollar. p. 52. — Br. Europ. l. c. p. 4. t. 3.

**440. H. viticulosum** L. II. p. 472.

*Anomodon viticulosus* Hook. et Tayl. Br. Europ. l. c. Leskeaceae. *Anomodon*, p. 5. t. 3.

442. **H. attenuatum** Schreb. II. p. 473.

*Anomodon attenuatus* Hüb. Br. Europ. l. c. p. 5. t. 2.

443. **H. longifolium** C. Müll. II. p. 474.

*Anomodon longifolius* Hartm. Br. Europ. l. c. p. 3. t. 1.

444. **H. rostratum** P. B. II. p. 475.

*Leskea rostrata* Hdw. Br. Europ. l. c. Leskea, p. 4. t. 4.

Subsectio II. **Tamariscella** C. Müll. II. p. 482. — Caulis eleganter 1 — 3-pinnatus.

481 b. **H. schistocalyx** C. Müll.; cespites latissimi planissimi appressi amoene lutescenti-virides, interrupti nec dense conferti; caulis longe repens flexuosus, ramis tenellis minutulis, ramulis brevissimis alternis simpliciter laxe pinnulatis, senioribus superficie filis brevissimis truncatulis obtectis; folia caulina crispula conferta, madore squarruloso-patentia, minuta, latiuscule cordato-lanceolata, brevissima, planiuscula vel subcarinata, *vix scabra*, margine erecto subcrenulato, nervo evanido pallescente, cellulis minute rotundatis opacis; perich. *majuscula*, latiuscule lanceolata, in acumen longissimum apice tubulosum articulatum producta, margine ubique in fila longissima crispata confervoidea simplicia fissa, nervo in acumen percurrente, cellulis ubique teneris pallidis elongatis laxiusculis pellucidis; theca in ped. mediocri purpureo ubique scaberulo apice parum incrassato vix inclinata turgide urceolata brevis, ochracea, operc. cupulato ochraceo oblique rostrato; perist. d. ext. pallidi breviusculolanceolati, intus cristati, int. angustissimi flavidi vix hiantes laeves, ciliis singulis brevioribus interjectis.

*Patria.* America centralis, Nicaragua, ad Matagalpa in Segovia, Decembr. 1847.: A. S. Oersted.

Foliis perichaetialibus ob omnibus congeneribus minutulis prima observatione discernibile et *H. delicatulum* inter *Tamariscellas* minutulas referens.

Sectio VII. **Hypnodendron** C. Müll. II. p. 496. — Caulis basi indivisa, foliis minutis remotis squamaeformibus oblecta, ad stipitis apicem dendroideo-ramosus; rami sparsifolii; folia plus minus ligulate oblonga v. acuminata, elliptice v. lineari-areolata, laevia.

Subsectio I. **Flabellaria** C. Müll. II. p. 497. — Caulis basi indivisus, apicem versus autem sensim in ramos toto ambitu caulis dispositos fasciculatos divisus.

489. **H. alopecuroides** Hook. II. p. 501.

*Patria.* Insula Sumbawa Archipelagi Indici, ad arbores, saepius ramis longe et tenerrime flagelliferis: Zollinger. No. 1433 Z.

Subsectio II. **Comatulina** C. Müll. II. p. 503. — Caulis summo apice tantum in comam elegantulam dendroideam divisus.

495b. **H. comatum** C. Müll.; *dioicum*; caulis inferne tomentosus, foliis patentibus oblectus, apice semel vel bis comosus; coma flaccida, e ramis *decurvatis haud cirrhatis pallescentibus* apice attenuatis vel *gemmaceis laxifoliis aequalibus breviter ramulosis* composita, *densissima*; folia ramulina erecto-potentia laxe conferta, *breviora*, e basi rotundata, ad alas parum impressa ovata *breviter lanceolata*, superne *dentata*, *haud grosse serrata*, nervo *tenui* carinato excurrente, apice dorso dentato, lutescente, cellulis pallide lutescentibus angustissimis *densissimis tenerius areolata*, cellulis alaribus paucis minute quadratis, margine erecto *haud incrassato*; perichaetia profunde immersa, turgide gemmacea; fol. perich. e basi vaginante angusta, elongate *anguste* areolata oblonga-acuminata, longiuscule cuspidata, nervo *obsoletissimo*, subexcurrente, margine erecto, ad subulam fuscidulam subdenticulato; theca in pedunculo breviusculo crasso rubro pendula, longiuscule cylindrica arcuata, basi substrumosa rugulosa, siccitate maxime sulcata rubra, operc. longe conico longe subulato flexuoso.

*H. comosum* Mossman in Coll. Musc. Nov. Seel. No. 720.

*Patria.* Nova Seelandia, ad truncos arborum et rupes humidus in sylvis prope Kaipara: Mossman 1850 legit.

Notis cursive impressis ab *H. Sieberi* diversum; ab *H. comoso* habitu proximo ramis decurvatis teneris pallidis, foliis exauriculatis tenuinervibus scabrinervibus aliisque notis longe differt.

498. **H. Menziesii** Hook. II. p. 506.

*Patria.* Nova Seelandia, „Oka forest” ad portum Kaipara, in terra humida prope Wairoa-river: Samuel Mossmann 1850. legit. Coll. No. 719.

499. **H. Junghuhnii** C. Müll. II. p. 507.

*Patria.* In Java primus sterile inter *H. Reinwardti* legit Blume. Hb. Al. Braun.

500. **H. spininervium** Hook. II. p. 507.

*Patria.* Nova Seelandia, ad portum Kaipara, Wairoa-river, in sylvis ad sinum limosum: Sam. Mossman 1850. Coll. No. 721.

## TABULA SYNOPTICA MUSCORUM.

Tribus.	Sub-tribus.	Hemi-cycli.	Gene-ra.	Sectio-nes.	Sub-sectiones.	Species.				
						verae.	obscu-rae.	verae in Bridelii Bryologia uni-versa 1826 et 27 descriptae.	novae, in Synopsi nostra primum descriptae.	
<b>A. ACROCARPI.</b>										
1. Andreaeaceae.	—	—	1	2	—	16	—	4	—	—
2. Bruchiaceae.	—	—	3	—	—	18	1	7	—	4
3. Phascaceae.	—	—	2	—	—	19	3	11	—	—
4. Ephemereae.	—	—	3	—	—	10	—	7	—	1
5. Schistostegaeae.	—	—	1	—	—	1	—	1	—	—
6. Drepanophylleae.	—	—	1	—	—	1	—	1	—	—
7. Distichiaceae.	—	—	2	—	—	5	—	4	—	—
8. Fissidentaeae.	—	—	2	5	—	71	3	17	—	10
9. Leucobryaceae.	—	—	5	—	—	24	1	9	—	5
10. Sphagnaceae.	—	—	1	—	—	19	3	10	—	8
11. Funarioideae.	2	—	10	4	—	75	5	36	—	4
12. Disceliaceae.	—	—	1	—	—	1	—	1	—	—
13. Buxbaumiaceae.	—	—	1	—	—	3	—	2	—	1
14. Mniioideae.	2	—	11	15	—	122	4	66	—	14
15. Bryaceae.	—	—	4	10	—	182	7	67	—	39
16. Dicranaceae.	—	—	6	4	—	152	2	54	—	41
17. Leptotrichaceae.	—	—	10	5	—	86	8	36	—	19
18. Bartramioideae.	2	—	6	5	—	77	2	37	—	10
19. Pottioideae.	3	2	21	47	—	470	26	225	—	114
20. Diphysciaceae.	—	—	1	—	—	2	—	1	—	—
	9	2	92	97	—	1354	65	596	—	270
<b>B. PLEUROCARPI.</b>										
21. Phyllogoniaceae.	—	—	1	—	—	2	—	1	—	—
22. Hypopterygiaceae.	—	—	2	2	—	20	4	13	—	7
23. Mniadelphaceae.	—	—	2	—	—	25	2	3	—	4
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*recurvata* Hook. I. 627.  
*reflexa* Brid. I. 617.  
*replicata* Tagl. I. 623.  
*revoluta* Brid. I. 608.  
*revoluta* Schw. I. 621.  
*revoluta* Web. et M. I. 608.  
*rigida* Hedw. I. 596.  
*rigida* Schultz. I. 596.  
*robusta* Hook. et Gr. I. 635. II. 632.  
*rufiseta* Tayl. I. 619.  
*ruralis* Hdw. I. 639.  
*ruralis* Schimp. I. 641.  
*Saussuriana* Brid. I. 647.  
*scabrinervis* C. Müll. I. 634.  
*Schreberi* Brid. I. 439.  
*serrulata* Hook. et Grev. I. 636.  
*setacea* Hdw. I. 615.  
*spathulata* Dz. et Molkb. I. 604.  
*speciosa* Hook. et Wils. I. 635.  
*spiralis* Schimp. I. 622.  
*Sprengeli* Schwägr. I. 569.  
*squarrosa* Brid. I. 601.  
*stellata* Brid. I. 604.  
*stricta* Hedw. I. 613.  
*subaristata* Br. et Sch. I. 644.  
*subpilosa* Brid. I. 630.  
*subspathulata* C. Müll. I. 633.  
*subulata* Br. I. 624.  
*subulata* Hdw. I. 623.  
*tenera* Brid. I. 645.  
*tenuirostris* Brid. I. 604.  
*teretiuscula* Schimp. I. 614.  
*torquata* Tayl. I. 611.

## BARBULA.

- tortuosa* Br. 12. 50.  
*tortuosa* Web. et M. I. 601.  
*Turneri* Brid. I. 582.  
*unguiculata* Hdw. I. 612.  
*Vahliana* Schultz. I. 626.  
*vinealis* Brid. I. 617.  
*xanthocarpa* C. Müll. I. 619.  
 BARTRAMIA Hdw. I. 471. II. 616.  
*Abyssinica* C. Müll. I. 506.  
*affinis* Hook. I. 505.  
*affinis* Hsch. I. 473.  
*ambigua* Mont. I. 502.  
*angulata* Taylor. I. 483.  
*arcuata* Brid. I. 487.  
*arcuata* Brd. I. 489.  
*arcuata* Sw. I. 488.  
*Berteroana* C. Müll. I. 485.  
*brachypus* Br. et Sch. I. 497.  
*brachypus* Br. et Sch. I. 497.  
*brachypus* Schimp. I. 618.  
*brevifolia* Brid. II. 619.  
*brevifolia* Schimp. II. 680.  
*calcareia* Br. et Sch. I. 475.  
*campylopus* Schimp. II. 619.  
*compacta* Hsch. I. 501.  
*conostoma* Br. I. 470.  
*Costuricensis* C. Müll. II. 618.  
*Cryptopodium* C. Müll. I. 507.  
*cycnea* Mont. I. 479.  
*elegantula* Tayl. I. 483.  
*erythrocaulis* C. Müll. I. 473.  
*falcata* Hb. Miquel. I. 481.  
*fastigiata* Brid. I. 509.  
*filiformis* Hsch. I. 482.  
*flavicans* Mitten. II. 618.  
*fontana* Hook. I. 476.  
*fontana* Schw. I. 474.  
*fontana* Schw. I. 472. 482.  
*Gardneri* C. Müll. I. 477.  
*gigantea* Bory St. Vincent I. 497.  
*gigantea* Schw. I. 489.  
*glaucescens* Hsch. I. 482.  
*gnaphalea* C. Müll. I. 489.  
*gracilis* Flörk. I. 508.  
*grandiflora* Schwägr. I. 508.  
*Halleriana* Hdw. I. 495.  
*Hercynica* Flörke. I. 499.  
*heteromalla* Brid. I. 499.  
*incana* Tayl. I. 501.  
*incurva* Hoppe I. 499.  
*integrifolia* Tayl. I. 490.  
*intertexta* Schimp. I. 503.  
*ithyphylla* Brid. I. 493.  
*Jamesoni* Tayl. I. 500. II. 619.

## BARTRAMIA.

- Krausii* Br. et Sch. I. 501.  
*laevisphaera* C. Müll. I. 506.  
*laxissima* C. Müll. I. 408.  
*longicollis* Hmp. I. 478.  
*longifolia* Hook I. 498.  
*longiseta* Brid. I. 508.  
*longiseta* Rich. I. 486.  
*Marchica* Sw. I. 475.  
*Menziesii* Turn. I. 505.  
*minuta* Taylor. I. 484.  
*mollis* Dz. et M. I. 484.  
*Mühlenbergii* Schwägr. I. 472.  
*Mülleri* Mont. I. 498. II. 619.  
*Oederi* Schw. I. 508.  
*Oederiana* Sw. I. 508.  
*Pabstiana* C. Müll. I. 486.  
*patens* Brid. I. 494.  
*patens* Hook. I. 498.  
*patens* Schw. I. 497.  
*pendula* Hook I. 491.  
*pendula* Spreng. I. 492.  
*pentasticha* Brid. I. 470.  
*pomiformis* Hdw. I. 499.  
*pomiformis* Sulliv. I. 508.  
*pomiformis* Wahlenb. I. 493.  
*Potosica* C. Müll. I. 498.  
*Potosica* Mont. I. 494.  
*pusilla* C. Müll. I. 480. II. 616.  
*pusilla* Sulliv. II. 616.  
*quadrata* Hook I. 503.  
*radicalis* P. B. I. 482.  
*reticulata* P. B. I. 494.  
*rigida* Bals et. De Not. I. 471.  
*robusta* Hook et Wils I. 495.  
 II. 619.  
*Roylii* C. Müll. I. 478.  
*rufiflora* Hsch. I. 482.  
*Schimperi* C. Müll. II. 617.  
*scoparia* Schw. I. 490.  
*scoparia* Schw. I. 492.  
*sericea* Hsch. I. 502.  
*Sieberi* Hsch. I. 491.  
*sphaericarpa* Schw. I. 481. II. 617.  
*sphaerocarpa* Mont. I. 484.  
*squarrosa* Turn. I. 497.  
*stricta* Brid. I. 500.  
*stricta* Schw. I. 501.  
*strictifolia* Tayl. I. 500.  
*subarcuata* C. Müll. II. 617.  
*subintegrifolia* P. B. I. 508.  
*subsessilis* Tayl. I. 507.  
*subulata* Br. I. 493.  
*tenella* C. Müll. I. 481.  
*tenuis* Taylor. I. 477.

- BARTRAMIA**,  
*tomentosa* Hook I. 488.  
*tomentosa* Schw. I. 489.  
*Turneriana* Schw. I. 472.  
*uncinata* C. Müll. et Wils. I. 477.  
*uncinata* Schwägr. I. 476.  
*viridissima* C. Müll. I. 496.  
*vulcanica* Brid. I. 497.  
*vulgaris* Dec. I. 499.  
*Webbii* C. Müll. I. 504.  
*Wilsoni* C. Müll. I. 479.
- BARTRAMIACEAE** Subtr. I. 469. II. 615.
- BARTRAMIDULA** Br. Europ.  
*Boylli* ej. I. 478.  
*Wilsonii* ej. I. 479.
- BARTRAMIOIDEAE** Trib. I. 463. II. 614.
- BERGIA** Fürnr. I. 126.
- BLINDIA** Br. et Sch. I. 342. II. 584.  
*acuta* Br. et Sch. I. 342. II. 584.  
*Antarctica* C. Müll. I. 344. II. 584.  
*cirrhata* C. Müll. II. 585.  
*contecta* C. Müll. I. 344. II. 584.  
*crispula* C. Müll. II. 584.  
*stricta* C. Müll. I. 343. II. 584.  
*Stylostegium* C. Müll. I. 345. II. 584.  
*tortifolia* C. Müll. I. 343. II. 584.
- BRACHYMENIUM** Schw.  
*Abyssinicum* Br. et Sch. I. 266.  
*acuminatum* Harv. I. 313.  
*bryoides* Hook. I. 311.  
*ciliare* Mont. I. 321.  
*flexifolium* Br. et Sch. I. 266.  
*herpocaulon* Brid. I. 311.  
*Hornschuchianum* Mart. I. 322.  
*imbricatum* Schimp. II. 579.  
*Jamesoni* Tayl. II. 580.  
*julaceum* Hsch. I. 324.  
*Mexicanum* Mont. I. 252.  
*microstomum* Harv. I. 325.  
*Nepalense* Hook. I. 323.  
*ovatum* H. et W. I. 180. II. 557.  
*patulum* Schimp. II. 580.  
*pendulum* Mont. I. 265.  
*pulchellum* Hsch. I. 320.  
*pulchrum* Hmp. I. 321.  
*pulehrum* Hook. I. 324.  
*splachnoides* Harv. I. 291.  
*subrotundum* Tayl. I. 265.  
*Weisia* Hook. I. 325.
- BRACHYMITRIUM** Tayl.  
*Jamesoni* ej. I. 135.
- BRACHYODUS** Fürnr. I. 416. II. 603.  
*trichodes* Fürnr. I. 416.
- BRACHYPODIUM** Brid.  
*parasiticum* I. 750.
- BRACHYSTELEUM** Rehb. I. 767. II. 649.  
*brachycarpum* Hsch. I. 769.  
*crispatum* Brid. I. 768.  
*crispatum* Hsch. I. 768.  
*crispatum* Hsch. I. 769.  
*Drummondii* C. Müll. I. 770.  
*glyphomitrioides* C. Müll. I. 769.  
*Hampeanum* C. Müll. I. 770.  
*incurvum* C. Müll. I. 770.  
*Indicum* C. Müll. I. 768.  
*lepidomitrium* C. Müll. I. 767.  
*polyphyllum* Hsch. I. 767.  
*Sellowianum* C. Müll. I. 768. II. 649.  
*serratum* C. Müll. I. 768.
- BRACHYTRICHUM** Röhl.  
*cupulatum* ej. I. 700.  
*saxatile* ej. I. 694.
- BRAUNIA** Br. et Sch.  
*Liebmanniana* eor. II. 668.  
*Schimperiana* eor. II. 105.  
*sciuroides* eor. II. 104.  
*secunda* eor. II. 103.
- BREUTELIA** Schimp.  
*subarcuata* ej. II. 617.
- BRUCHIA** Schwägr. I. 17. II. 518.  
*Beyrichiana* C. Müll. I. 18.  
*breripes* Hook. I. 18.  
*Eckloniana* C. M. I. 19.  
*exigua* C. M. I. 16.  
*flexuosa* C. M. I. 20.  
*Hampeana* C. M. I. 18.  
*palustris* C. M. I. 19. II. 519.  
*repens* Hsch. II. 87.  
*Vogesiaca* Drumm. I. 20.  
*Vogesiaca* Schw. I. 20.
- BRUCLACEAE** Trib. I. 13. II. 517.
- BRYACEAE** Trib. I. 228. II. 565.
- BRYUM** Dill. I. 241. II. 567.  
*Abyssinicum* Br. et Sch. I. 265.  
*aciculare* L. I. 801.  
*acuminatum* B. et Sch. I. 326.  
*acuminatum* Sw. I. 604.  
*acutum* Dicks. I. 343.  
*Aegypti* Hasselq. I. 120.  
*aeneum* Blytt. I. 274.  
*affine* Gmel. I. 705.  
*agrarium* Sw. I. 604.  
*albicans* Wahlenb. I. 295.  
*albidum* L. I. 87.  
*Algovicum* Sendtn. II. 569.  
*alpinum* L. I. 285.



## BRYUM.

- ambiguum* Dub. I. 294.  
*andicola* Hook. I. 256.  
*androgynum* Hdw. I. 170.  
*androgynum* Roth. I. 170.  
*angulosum* Menz. I. 470.  
*angustifolium* Brid. I. 309.  
*annotinum* Brid. I. 233.  
*annotinum* Hdw. I. 331.  
*annulatum* H. et Wils. II. 577.  
*Antarcticum* H. et Wils. II. 572.  
*apiculatum* Schw. I. 308.  
*apocarpum* L. I. 777. II. 164.  
*aquaticum* Gmel. II. 653.  
*aquaticum* Hoffm. II. 607.  
*Archangelicum* Br. et Sch. I. 271. II. 569.  
*Arcticum* Br. et Sch. I. 269.  
*argenteum* L. I. 314.  
*aristatum* Dicks. I. 612.  
*articulatum* Sendtn. I. 305.  
*atropurpureum* Wahlenb. I. 306. II. 576.  
*attenuatum* Brid. I. 257.  
*Auberti* Brid. I. 262.  
*Auberti* Hsch. I. 261.  
*Auberti* Schw. I. 261.  
*aureum* Schreb. I. 330.  
*Australe* Hmp. I. 285.  
*badium* Bruch I. 284.  
*barbatum* Curt. I. 612.  
*Bartramia* Schw. I. 507.  
*bartramioides* Hook I. 507.  
*basiflorum* Gmel. I. 647.  
*Beyrichianum* C. Müll. I. 249.  
*bicolor* Turn. I. 306.  
*Billardierii* Schw. I. 253.  
*Billardierii* Br. et Sch. I. 253.  
*bimum* Schreb. I. 257.  
*bipartitum* Dicks. I. 646.  
*blandum* H. et W. I. 318. II. 577.  
*Blindii* Br. et Sch. I. 298.  
*Boissieri* De Not. I. 336.  
*Boreale* Schw. I. 280.  
*brachydontium* Hmp. I. 327.  
*brevicaule* Hmp. I. 323.  
*brevicaule* Vill. I. 775.  
*Bridelianum* C. Müll. I. 341.  
*Brownianum* Dicks. I. 181.  
*Brownii* Br. et Sch. I. 273.  
*brunnescens* Schl. I. 275.  
*bulbillosum* Mont. I. 301.  
*caesium* Vill. I. 569.  
*calcareum* Dicks. I. 419.  
*callistomum* Dicks. I. 436.

## BRYUM.

- calophyllum* R. Br. I. 287.  
*calycinum* Sw. I. 350.  
*campylothecium* Tayl. I. 254.  
*Canariense* Schw. I. 253.  
*canescens* Hoffm. I. 807.  
*caulescens* Vill. I. 131.  
*Capense* Hmp. I. 281.  
*capillaceum* Hull. I. 713.  
*capillare* Hdw. I. 281.  
*capillare* H. et W. I. 283.  
*capillifolium* C. Müll. II. 578.  
*carneum* L. I. 294.  
*carneum* Schw. I. 306.  
*cavum* C. Müll. I. 283.  
*cellulare* Hook. I. 291.  
*Celsii* L. I. 646.  
*cernuum* Br. et Sch. I. 266.  
*cernuum* Brid. I. 268.  
*cerviculatum* Dicks. I. 430.  
*cespiticium* Hook. et Tayl. I. 268.  
*cespiticium* L. I. 284.  
*cespiticium* Schw. I. 272. 279.  
*ciliare* Grev. I. 159.  
*ciliatum* Dicks. II. 164.  
*cinclidoides* Blytt. I. 250.  
*cirrhatum* Dill. I. 601.  
*cirrhatum* Gmel. II. 586.  
*cirrhatum* Hpp. et Hsch. I. 278. II. 570.  
*clavatum* Schimp. I. 292.  
*coarctatum* C. Müll. I. 312.  
*coarctatum* Schultz. I. 295.  
*Commersoni* Brid. I. 249.  
*compactum* Dicks. I. 295.  
*compressidens* C. Müll. I. 290.  
*concinatum* Spruce. II. 575.  
*conicum* Dz. et M. I. 251.  
*conicum* Hsch. I. 301.  
*conoideum* Dicks. I. 671.  
*contextum* Hsch. I. 280.  
*controversum* Hoffm. I. 652.  
*convolutum* Dicks. I. 615.  
*coronatum* Hmp. I. 307.  
*coronatum* Schw. I. 307.  
*creberrimum* Tayl. I. 283.  
*cribrosum* Hoffm. I. 765.  
*crinitum* Mitten. II. 580.  
*crispatum* Dicks. I. 650.  
*crispum* Hoffm. I. 713.  
*crispum* Schreb. I. 439.  
*cristatum* C. Müll. II. 580.  
*crudum* Schreb. I. 373.  
*Crügeri* Hmp. I. 300. II. 574.  
*cubitale* Dicks. I. 258.  
*cucullatum* Schw. I. 328.

## BRYUM.

- cuneifolium* Dicks. I. 628.  
*curvulum* Schl. I. 289.  
*cuspidatum* Gmel. I. 549.  
*cuspidatum* Schreb. I. 161.  
*cyclophyllum* Br. et Sch. I. 287.  
     II. 571.  
*cylindricum* Dicks. I. 337.  
*Daviesii* Dicks. I. 765.  
*dealbatum* Dicks. I. 127.  
*Decaisnei* Dz. et M. I. 251.  
*decipiens* Brid. I. 332.  
*delicatulum* Hdw. I. 295.  
*demissum* Hook. I. 289.  
*dendroides* L. fil. II. 504.  
*diaphanum* Web. I. 182.  
*dichotomum* Hdw. I. 304.  
*dicranoides* Hook. I. 309.  
*didymodon* Gmel. I. 570.  
*doliolum* Dub. I. 304.  
*Domingense* C. Müll. I. 281.  
*Donianum* Grev. I. 167. II. 571.  
*Duvallii* Vait. I. 260.  
*Ehrenbergianum* C. Müll. I. 255.  
*elegans* Grev. I. 257.  
*elegans* Nees. I. 281.  
*elongatum* Br. et Sch. I. 336.  
*elongatum* Dicks. I. 336.  
*elongatum* Hoffm. I. 807.  
*erectum* Hook. I. 252.  
*ericetorum* Dicks. I. 613.  
*ericoides* Dicks. I. 807.  
*erythrocarpon* Brid. I. 306.  
*erythrocarpon* Schw. I. 297.  
*erythrocaulon* Brid. I. 262.  
*exile* Dz. et M. I. 311.  
*exile* Hmp. I. 312.  
*extinctorium* L. I. 516.  
*fallax* Dicks. I. 617.  
*fasciculare* Dicks. I. 120.  
*fasciculare* Hoffm. I. 809.  
*Ferchellii* Fk. I. 281.  
*filiforme* Dicks. I. 316.  
*flaccidum* Brid. I. 281.  
*flagellare* Dicks. I. 381.  
*flexifolium* Br. et Sch. I. 266.  
*flexifolium* Dicks. I. 578.  
*flexuosum* C. Müll. I. 327.  
*fontanum* Sw. I. 474.  
*Forsteri* Dicks. I. 667.  
*fulvellum* Dicks. II. 593.  
*funarioides* Brid. I. 109.  
*Funkii* Br. et Sch. I. 298. 301.  
*Funkii* Schw. I. 305.  
*Gaudichaudi* Spr. I. 183.  
*Gayanum* Mont. I. 267.

## BRYUM.

- geniculatum* Brid. I. 276.  
*giganteum* Hook. I. 248.  
*Gilliesii* Hook. I. 292.  
*glaciale* Schl. I. 260. 296.  
*glaucescens* Dicks. I. 569.  
*glaucum* L. I. 75.  
*gracile* Schl. I. 333. II. 583.  
*gracilescens* C. Müll. I. 261.  
*gracilisetum* Hsch. I. 339.  
*grandifolium* C. Müll. I. 250.  
*Griffithianum* Dicks. I. 129.  
*Hallerianum* Neck. I. 812.  
*Harveyanum* C. Müll. I. 313.  
*hemisphaericarpum* C. Müll. II.  
     576.  
*heteromallum* Dill. I. 432.  
*heterophyllum* Hook. I. 164.  
*heterostichum* Hoffm. I. 808.  
*Hookeri* Spr. I. 323.  
*Hornschuchianum* C. Müll. I.  
     322.  
*hornum* Sw. I. 165.  
*hyperboreum* Gunn. I. 372.  
*hybridum* Bruch. I. 257.  
*hygrometricum* Neck. I. 107.  
*hypnoides* Br. I. 807.  
*hypnoides* L. I. 806.  
*imberbe* L. I. 617.  
*imbricatifolium* C. Müll. II. 578.  
*imbricatulum* C. Müll. II. 575.  
*imbricatum* Br. et Sch. I. 303.  
*inclinatum* Br. et Sch. I. 269.  
*inclinatum* Dicks. I. 41.  
*inaequale* Tayl. I. 302.  
*Indicum* Dz. et M. I. 313.  
*insulare* De Not. I. 281. II. 571.  
*integridens* C. Müll. I. 338.  
*intermedium* Br. et Sch. I. 279.  
*intermedium* Brid. I. 278.  
*interruptum* Dicks. I. 474.  
*intricatum* Brid. I. 288.  
*Jamesoni* C. Müll. II. 580.  
*julaceum* Hook. I. 317.  
*julaceum* Schrad. I. 314.  
*julaceum* Sm. I. 315. II. 577.  
*Koratranum* C. Müll. I. 324.  
*Kuntzii* Hpp. et Hsch. I. 284.  
*lacustre* Bland. I. 268.  
*laevigatum* H. et W. I. 319. II.  
     577.  
*lanatum* Brid. I. 314.  
*lanceolatum* Dicks. I. 549.  
*lanuginosum* Hoffm. I. 806.  
*Lapponicum* Dicks. I. 680.  
*laterale* Ehrh. I. 496.

## BRYUM.

- latifolium* Br. et Sch. I. 286.  
 II. 571.  
*leptoblepharon* C. Müll. I. 337.  
*leptophyllum* Br. et Sch. I. 273.  
*leptostomoides* C. Müll. I. 321.  
*leptothecium* Tayl. I. 254.  
*Lescurianum* Sulliv. II. 582.  
*leucophyllum* Dz. et M. I. 315.  
*Leveilleanum* Dz. et M. I. 299.  
*Liebmannianum* C. Müll. II. 573.  
*ligulatum* Schreb. I. 161.  
*limbatum* C. Müll. II. 573.  
*longicollum* Sw. I. 336.  
*longirostrum* Brid. I. 158.  
*longisetum* Bland. I. 269.  
*Ludwigii* Spr. I. 332. II. 583.  
*lutescens* Dicks. I. 809.  
*lycopodiforme* Schleich. I. 474.  
*lycopodioides* Hook. I. 165.  
*macrocarpum* Hdw. I. 186.  
*macropelma* C. Müll. I. 275.  
*Magellanicum* C. Müll. II. 579.  
*Marchicum* Roth. I. 476.  
*marginale* Dicks. I. 440.  
*marginatum* Br. et Sch. I. 297.  
*marginatum* Brid. I. 304.  
*marginatum* Bruch. I. 299.  
*marginatum* Dicks. I. 164.  
*marginatum* Drumm. I. 163.  
*Martianum* C. Müll. I. 320.  
*medium* Vill. II. 591.  
*megalacrion* Schw. I. 312.  
*megalocarpum* Hook. I. 264.  
*melanodon* Brid. I. 295.  
*Melvilleanum* C. Müll. I. 267.  
*Menziesii* Hook. I. 177.  
*Mexicanum* C. Müll. I. 252.  
*Meyenianum* C. Müll. I. 296.  
*microcarpon* Gmel. I. 804.  
*microcarpum* C. Müll. I. 294.  
*microstegium* Br. et Sch. I. 279.  
*microstomum* C. Müll. I. 325.  
*microstomum* Dicks. I. 661.  
*microtheca* C. Müll. I. 314.  
*minutum* Dicks. I. 547.  
*muroides* Gmel. I. 330.  
*muroides* Wils. I. 156.  
*Montagneanum* C. Müll. I. 265.  
*Morisii* Bruch. I. 297.  
*mucronulatum* Dicks. I. 612.  
*Mühlenbeckii* Br. et Sch. I. 286.  
*Mülleri* Spruce. II. 571.  
*multicaule* Tayl. I. 302.  
*multiflorum* C. Müll. I. 339.  
*murale* L. I. 625.

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- Neelgheriense* Mont. I. 255.  
*Neodamense* Itzigs. I. 258.  
*Nepalense* Dz. et M. I. 323.  
*Nepalense* Spr. I. 311.  
*nigrescens* Vill. I. 800.  
*nigricans* Dicks. I. 259.  
*nigritum* Dicks. I. 510.  
*nitens* Hook. I. 338.  
*nivale* C. Müll. I. 262.  
*Norvegicum* Oed. I. 496.  
*nudum* Dicks. I. 150.  
*nutans* Hook. I. 236. 270.  
*nutans* Schreb. I. 335.  
*obconicum* Hsch. I. 282. II. 571.  
*obscurum* Sendtn. I. 257.  
*obtusifolium* Turn. I. 286. 7.  
*octoblepharis* Gmel. I. 87.  
*Oederi* Gunn. I. 508.  
*Oerstedianum* C. Müll. II. 583.  
*orthocladum* Br. et Sch. I. 318.  
*orthodontioides* C. Müll. I. 293.  
*orthodontum* P. B. I. 141.  
*ovale* Hoffm. I. 775.  
*ovatum* Dicks. I. 551.  
*pachypoma* Mont. I. 299.  
*pachytheca* C. Müll. I. 307.  
*pallens* Sw. I. 256.  
*pallescens* Br. et Sch. I. 275.  
*pallescens* Schw. I. 279. II. 570.  
*pallidum* Schreb. I. 451.  
*palmifolium* Brid. 341.  
*paludosum* L. I. 419.  
*paludosum* Web. I. 652.  
*palustre* Brid. I. 582.  
*palustre* Dicks. I. 438.  
*papillosum* C. Müll. I. 326.  
*papillosum* Dicks. I. 647.  
*paradoxum* Schw. I. 290.  
*parasiticum* Sw. I. 751.  
*patens* Dicks. I. 798.  
*patens* H. et W. I. 250.  
*patulum* C. Müll. II. 579.  
*paucifolium* Dicks. I. 660.  
*pellucidum* Abb. I. 182.  
*pellucidum* L. I. 438. II. 607.  
*pendulum* Brid. I. 491.  
*pendulum* Ebr. I. 330.  
*pendulum* Fl. Dan. I. 496.  
*pennatum* With. I. 38.  
*Peromnion* C. Müll. I. 321.  
*phascoides* Jacq. I. 812.  
*Philippianum* C. Müll. I. 277.  
*piliferum* Dicks. I. 589.  
*plagiopodium* Schimp. II. 572.  
*platyloma* Schw. I. 282. II. 571.

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*platyphyllum* C. Müll. I. 291.  
*plumosum* Dz. et M. I. 299.  
*pohliaeforme* Brid. I. 275.  
*polycarpon* Hoffm. II. 591.  
*polymorphum* Br. et Sch. I. 329.  
*polymorphum* Neck. I. 161.  
*polyphyllum* Dicks. I. 767.  
*Preissianum* Hmp. I. 310.  
*prostratum* C. Müll. I. 317.  
*pseudotriquetrum* Brid. I. 257.  
*pseudotriquetrum* Hdw. I. 258.  
*pulchellum* Hdw. I. 332.  
*pulchellum* Sulliv. II. 582.  
*pulchellum* Wahlenb. I. 306.  
*pulchrum* C. Müll. I. 324.  
*pulvinatum* L. I. 784.  
*punctatum* Schreb. I. 156.  
*pungens* Tayl. I. 302.  
*purpurascens* Br. et Sch. I. 270.  
 II. 569.  
*purpureum* Neck. I. 646.  
*pyriforme* Hdw. I. 330.  
*pyriforme* C. I. 116.  
*radians* P. B. I. 123.  
*radiculosum* Brid. I. 297.  
*recurvatum* Hoffm. I. 420.  
*recurvifolium* Tayl. I. 340.  
*recurvirostrum* Dicks. I. 582.  
*recurvum* Wulf. I. 496.  
*Regnellii* C. Müll. II. 581.  
*repens* Gmel. II. 412.  
*reticulatum* Dicks. I. 138.  
*rigidulum* Dicks. I. 570.  
*rigidum* C. Müll. I. 263.  
*rivulare* Hoffm. I. 800.  
*roseum* Brid. I. 255.  
*roseum* Schreb. I. 247.  
*roseum* W. Arn. I. 249.  
*rostratum* Schrad. I. 158.  
*rubellum* Brid. I. 295.  
*rubellum* Hoffm. I. 582.  
*rufescens* Dicks. I. 437.  
*rugosum* Hoffm. I. 355.  
*rupincolum* Schl. I. 280.  
*rutilans* Br. et Sch. I. 334.  
*rutilans* Brid. I. 274.  
*Sandii* Dz. et M. I. 300.  
*sanguineum* Brid. I. 297.  
*Sauteri* Br. et Sch. I. 280.  
*Schimperi* C. Müll. I. 334.  
*Schisti* Oeder. I. 650.  
*Schleicheri* Schw. I. 260, 296.  
*scoparium* L. I. 359.  
*secundum* Gmel. I. 808.  
*Sellowianum* C. Müll. I. 319.

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*seminerve* C. Müll. I. 264.  
*semiovatum* Brid. I. 316.  
*semivacuum* Vill. I. 705.  
*serpyllifolium* Huds. I. 158, 161.  
*serpyllifolium* Sw. I. 156.  
*serratum* Schrad. I. 164.  
*setaceum* Huds. I. 582.  
*setaceum* Vill. I. 615.  
*simplex* L. I. 436.  
*smaragdinum* C. Müll. II. 576.  
*soboliferum* Tayl. I. 340.  
*speciosum* Voit. I. 257.  
*spectabile* C. Müll. II. 583.  
*sphaericarpon* Sw. I. 481.  
*Sphagni* Brid. I. 330.  
*sphagnicola* Br. et Sch. I. 331.  
*sphagnoides* Jacq. II. 164.  
*spinatum* Voit. I. 162.  
*splachnoides* C. Müll. I. 291.  
*squalidum* Vill. I. 281.  
*squarrosus* L. I. 468.  
*Starkeanum* W. et M. I. 547.  
*stellare* Roth. I. 166.  
*stellatum* Lam. I. 166.  
*striatum* L. I. 708.  
*striatum* S. L. I. 713.  
*strictum* Dicks. I. 647.  
*strumiferum* Dicks. II. 592.  
*subobliquum* Lindgr. I. 258.  
*subrotundum* Brid. I. 275.  
*subtorquatum* Hsch. I. 253.  
*subulatum* L. I. 623.  
*sylvaticum* Gmel. I. 713.  
*Systylium* C. Müll. I. 320.  
*Taylori* C. Müll. I. 264.  
*tectorum* De Not. I. 284.  
*tenellum* Schimp. II. 572.  
*tenue* Dicks. I. 646.  
*tenuicaule* Mont. I. 293.  
*tenuifolium* H. et D. I. 335.  
*tenuissimum* Tayl. I. 425.  
*teretiusculum* Hook. I. 303.  
*tetragonum* Dicks. I. 470.  
*tomentosum* Brid. I. 281.  
*tomentosum* Sw. I. 488.  
*tophaceum* Dur. et Mont. II. 574.  
*torquescens* Br. et Sch. I. 277.  
*tortifolium* Brid. I. 287.  
*tortuosum* L. I. 601.  
*Tozeri* Grev. I. 298, II. 574.  
*trichodes* Hdw. 335.  
*truncatulum* L. I. 554.  
*truncorum* Brid. I. 254.  
*turbinatum* Hdw. I. 259.  
*turbinatum* Hook. I. 233.

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- turbinatum* Hook. et Tayl. I. 257. 269. 278.  
*turbinatum* Schw. I. 308.  
*uliginosum* Br. et Sch. I. 271.  
*Umbraculum* Bruch. I. 248.  
*undulatum* L. I. 192.  
*undulatum* Roth. I. 161.  
*vagans* Hook et Wils. I. 467.  
*ventricosum* Dicks. I. 258.  
*ventricosum* Schw. I. 260.  
*versicolor* A. Br. I. 308.  
*verticillatum* Dicks. I. 656.  
*virens* Dicks. I. 652.  
*virens* Sw. II. 609.  
*viridissimum* Dicks. I. 671.  
*viridulum* L. I. 652.  
*viridulum* Web. I. 652.  
*Wagneri* C. Müll. II. 570.  
*Wahlenbergii* Schw. I. 295.  
*Warneum* Bland. I. 272.  
*Weigeli* Spr. I. 333.  
*Weisia* C. Müll. I. 325.  
*Wilsoni* Mitten. II. 582.  
*Zierii* Dicks. I. 288. II. 572.  
*Zollingeri* Dub. I. 340. II. 569.  
**BUXBAUMIA** Hall. I. 150. II. 552.  
*caulescens* Schmid. I. 151.  
*aphylla* Hall. I. 151.  
*aphylla* Hmp. I. 152.  
*aphylla* Mong. et Nestl. I. 152.  
*foliosa* L. I. 812.  
*indusiata* Brid. I. 151. II. 553.  
*Javanica* C. M. I. 152.  
*sessilis* Schmidel. I. 812.  
*vulgaris* Brid. I. 151.  
**BUXBAUMIACEAE** Trib. I. 150. II. 552.  
**CALLIBRYUM** Zk. et D.  
*polytrichoides* Wieb. I. 192.  
*undulatum* Zk. et Dietr. I. 192.  
**CALLICOSTA** C. Müll.  
*affinis* ej. II. 179.  
*bipinnata* ej. II. 178.  
*composita* ej. II. 178.  
*evanescens* ej. II. 179.  
*filiformis* ej. II. 212.  
*hypnoides* ej. II. 178.  
**CALLICOSTELLA** Sect. II. 216. 678.  
**CALYMPERACEAE** Subtr. I. 512. II. 620.  
**CALYMPERES** Sw. I. 532. II. 620.  
*Afzelii* Brid. I. 523.  
*Afzelii* Sw. I. 523.  
*albovaginatum* W. Arn. I. 541.  
*androgynum* Mont. I. 536.

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- Crügeri* C. Müll. I. 527.  
*disciforme* C. Müll. I. 525.  
*erosum* C. Müll. I. 524.  
*Gardneri* Hook. I. 538.  
*Guildingii* Hook. et Grev. I. 528.  
*Hobsoni* Grev. I. 535.  
*latifolium* Hmp. I. 525.  
*lonchophyllum* Schw. I. 526.  
*Moluccense* Schw. I. 523.  
*Palisoti* Schw. I. 524. 525.  
*repens* C. Müll. I. 526.  
*Richardi* C. Müll. I. 524. II. 620.  
*rigidum* Mont. I. 536.  
*serratum* A. Br. I. 527.  
**CAMPYLODONTIUM** Schw.  
*hypnoides* Schw. II. 39.  
*striatum* Dz. et Molkb. II. 40.  
**CAMPYLODONTIUM** Sect. II. 39. 662.  
**CAMPYLOPODIUM** Sect. I. 429. II. 605.  
**CAMPYLOPUS** Brid.  
*Arduennae* Libert. II. 598.  
*atrovirens* De Not. I. 414.  
*brachyphyllus* Wils. II. 598.  
*brevipilus* Br. et Sch. I. 412.  
*capillaceus* H. et W. I. 389.  
*cirrhatum* Hsch. II. 591.  
*concolor* Brid. I. 391.  
*contortus* Br. I. 789.  
*cygneus* Brid. I. 389.  
*densus* Br. et Sch. I. 393.  
*ellipticus* Br. I. 800.  
*elongatus* Brid. I. 387.  
*exasperatus* Brid. I. 385.  
*flexuosus* Brid. I. 400. 401.  
*flexuosus* Mont. I. 402.  
*fragilis* Br. et Sch. I. 393.  
*funalis* Br. I. 799.  
*humilis* Mont. I. 384.  
*incrassatus* Kze. I. 409.  
*introflexus* auct. I. 407.  
*introflexus* Brid. I. 406.  
*laevigatus* Schimp. II. 601.  
*laevis* Tayl. I. 409.  
*lamellatus* Mont. I. 411.  
*lamellicosta* Schimp. II. 601.  
*leptodus* Mont. I. 413.  
*Liebmanni* Schimp. II. 601.  
*longipilus* Brid. I. 412.  
*lutescens* Schimp. II. 602.  
*nanus* C. Müll. I. 384.  
*ovatus* Brid. I. 774.  
*penicillatus* Brid. I. 393.  
*Perrottetii* Mont. I. 394.  
*pilifer* Brid. I. 412.  
*polytrichoides* De Not. I. 412.

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- pulvinatus* Br. I. 783.  
*pyriformis* Schz. I. 400.  
*Richardi* Brid. I. 413.  
*Richardi* Schimp. II. 601.  
*saxicola* Brid. I. 417.  
*strictus* C. Müll. I. 408.  
*Surinamensis* C. Müll. I. 386.  
*torfaceus* Br. et Sch. I. 400.  
*truncatus* C. Müll. I. 410.  
*xanthophyllus* Mont. I. 410.  
**CAMPYLOPUS** Sect. I. 383. II. 596.  
**CAMPYLOSTELIUM** Br. et Sch. I. 417.  
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*saxicola* Br. et Sch. I. 417. II. 603.  
**CATHARINEA** Ehrh. I. 191. II. 558.  
*alpina* Röhl. I. 211.  
*androgyna* C. Müll. I. 193.  
*angustata* Brid. I. 193.  
*Callibryon* C. Müll. II. 558.  
*Callibryon* Ehrh. I. 192.  
*canaliculata* C. Müll. I. 199.  
*ciliata* C. Müll. I. 201. II. 560.  
*compressa* C. Müll. I. 195. II. 559.  
*dendroides* Hmp. I. 199. II. 559.  
*glabrata* Hook. I. 195.  
*Hercynica* Ehrh. I. 196. II. 559.  
*intermedia* Bel. I. 223.  
*Javanica* Hmp. I. 196.  
*Magellanica* Brid. I. 201. II. 560.  
*Molinae* C. Müll. I. 198.  
*nana* Röhl. I. 204.  
*Oerstediana* C. Müll. II. 558.  
*polycarpa* Schimp. II. 558.  
*Pseudopolytrichum* Badd. I. 201.  
*pulverulenta* Röhl. I. 209.  
*Riedeliana* Hmp. I. 197.  
*semilamellata* Hmp. I. 198.  
*squamosa* C. Müll. I. 200. II. 560.  
*Sudetica* Presl. I. 196.  
*tenella* Röhl. I. 194.  
*tenuirostris* Brid. I. 198.  
*trichodon* C. Müll. I. 195.  
*undulata* Röhl. I. 192.  
*urnigera* Röhl. I. 209.  
**CATHARINELLA** Sect. I. 213. II. 563.  
**CATOSCOPIUM** Brid. I. 509. II. 620.  
*Martianum* Hüb. I. 509.  
*nigratum* Brid. I. 510.  
**CECALYPHUM** P. B.  
*cylindraceum* P. B. I. 351.  
*dichotomum* P. B. I. 362.  
*fasciatum* P. B. I. 388.  
*multiflorum* P. B. II. 591.

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- sciuroides* P. B. II. 108.  
*scoparium* P. B. I. 359.  
*scrophulosum* P. B. I. 364.  
*semicompletum* P. B. I. 45.  
*serratum* Schimp. II. 587.  
*strumiferum* P. B. II. 592.  
*tortile* P. B. I. 767.  
*undulatum* P. B. I. 358.  
**CEPHALOTRICHUM** Br. et Sch.  
*oligodus* Br. et Sch. I. 206.  
*Simense* Br. et Sch. I. 207.  
**CEPHALOTRICHUM** Sect. I. 205. II. 561.  
**CERATODON** Brid. I. 645. II. 633.  
*chloropus* Brid. I. 576.  
*Corsicus* Br. Europ. II. 633.  
*cylindricus* Br. Eur. I. 441.  
*palustris* Mont. I. 647.  
*purpureus* Brid. I. 646. II. 633.  
*purpureus* Mont. I. 647.  
**CHAENOMITRIUM** C. Müll.  
*clavellatum* ej. I. 687.  
**CHAETEPHORA** Hsch.  
*cristata* Brid. II. 203.  
*incurva* ej. II. 192.  
*Langsdorffii* Brid. II. 193.  
*pendula* Brid. II. 211.  
*Perrini* Brid. II. 206.  
*orthotrichoides* Brid. II. 223.  
**CHAETOMITRIUM** Dz. et M.  
*elongatum* eor. II. 213.  
**CINCLIDIUM** Sw. I. 153. II. 553.  
*Arcticum* Br. et Sch. I. 154.  
*stygium* Sw. I. 153.  
**CINCLIDOTUS** P. B.  
*aquaticus* Br. Europ. II. 653.  
*fontinaloides* P. B. II. 652.  
*riparius* Arn. II. 651.  
**CINCLIDOTUS** Sect. II. 650.  
**CLADODIUM** Brid.  
*calophyllum* Brid. I. 288.  
*inclinatum* Brid. I. 269.  
*uliginosum* Brid. I. 272.  
**CLADOPODANTHUS** Dz. et M.  
*pilifer* eor. I. 78.  
**CLASMATODON** H. et Wils.  
*pusillus* eor. II. 410.  
**CLASTOBRYUM** Dz. et M.  
*Indicum* Dz. et M. II. 91.  
**CLEISTOSTOMA** Brid.  
*albovaginatum* Brid. I. 541.  
*ambiguum* Brid. II. 107.  
*Gardneri* Brid. I. 538.  
*incompletum* Brid. I. 535.  
*Taylori* Brid. I. 546.

- CLIMACIUM** Mohr.  
*Americanum* Brid. II. 122.  
*dendroides* Web. et Mohr. II. 121.  
*longirostrum* Brid. II. 224.  
*lutescens* Voit. II. 371.  
*neckeroides* Brid. II. 42.  
*sulcatum* Brid. II. 123.
- CLIMACIUM** Sect. II. 121. 669.
- CODONOBLEPHARON** Schw.  
*Menziesii* ej. I. 669.  
*undulatum* Dz. et M. I. 530.
- CODONOBLEPHARUM** Sect. I. 668. II. 637.
- COMATULINA** Subsect. II. 503. 692.
- CONOMITRIUM** Mont. II. 524.  
*amoenum* C. Müll. II. 527.  
*asterodontium* C. Müll. II. 527.  
*Berterii* Mont. I. 45. II. 524.  
*Braunii* C. Müll. II. 527.  
*Capense* C. Müll. II. 524.  
*Dillenii* Mont. I. 45. II. 524.  
*Hedwigii* Mont. I. 45. II. 524.  
*hyalinum* C. Müll. II. 525.  
*Julianum* Mont. I. 44. II. 524.  
*laxifolium* C. Müll. II. 527.  
*osmundioides* C. Müll. II. 526.  
*palmatum* C. Müll. II. 526.  
*pellucidum* C. Müll. II. 525.  
*radicans* Mont. II. 526.  
*reticulosum* C. Müll. II. 525.  
*serratum* C. Müll. II. 527.  
*splachnifolium* C. Müll. II. 525.  
*stissotheca* C. Müll. II. 525.
- CONOSTOMUM** Sw. I. 469. II. 615.  
*Arcticum* Sw. I. 470.  
*Australe* Sw. I. 470.  
*Boreale* Hmp. I. 665.  
*Boreale* Sw. I. 469. II. 615.  
*Magellanicum* Sulliv. II. 615.
- COSCINODON** Spr. I. 765. II. 648.  
*aciphyllus* Brid. I. 549.  
*connatus* Brid. I. 549.  
*cribrosus* Spruce. I. 765.  
*elongatus* Brid. I. 656.  
*lanceolatus* Brid. I. 549.  
*longirostris* Brid. I. 421.  
*pallidisetus* Brid. I. 422.  
*plagiopus* Spr. I. 780.  
*pullulans* Brid. II. 611.  
*pulvinatus* Spr. I. 765.  
*verticillatus* Brid. I. 656.
- CRYPHAEA** Brid.  
*apiculata* Schimp. II. 674.  
*attenuata* Schimp. II. 674.  
*Caripensis* C. Müll. II. 170.
- CRYPHAEA**.  
*consimilis* Mont. II. 167.  
*filiformis* Brid. II. 169.  
*filiformis* Hsch. II. 167.  
*filiformis* Sulliv. II. 168.  
*glomerata* Schimp. II. 168.  
*Gorveana* Mont. II. 176.  
*helictophylla* Mont. II. 174.  
*helictophylla* Wils. II. 174.  
*heteromalla* Brid. II. 168.  
*heterophylla* Brid. II. 58.  
*intermedia* C. Müll. II. 171.  
*Jamesoni* Tayl. II. 173.  
*Lamyana* Mont. II. 168.  
*Leiboldi* C. Müll. II. 173.  
*leiophylla* Schimp. II. 674.  
*patens* C. Müll. II. 172.  
*patens* Hmp. II. 172.  
*patens* Hsch. II. 171.  
*pinnata* Schimp. II. 675.  
*protensa* Br. et Sch. II. 170.  
*protensa* Schimp. II. 172.  
*rufescens* C. Müll. II. 176.  
*sphaerocarpa* Brid. II. 171.  
*tenella* Hsch. II. 166.  
*tenuissima* Hook. et Wils. II. 175.  
*vermicularis* Brid. II. 168.
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- CRYPHAEADELPHUS** Subsect. II. 144. 673.
- CRYPTANGIUM** C. Müll.  
*Schomburgkii* ej. II. 152.
- CRYPTOCARPUS** Dz. et M. I. 718. II. 641.  
*apiculatus* Dz. et M. I. 718.
- CRYPTOPODIA**.  
*pennata* Röhl. II. 50.
- CRYPTOPODIUM** Schw.  
*Bartramia* Schw. I. 507.  
*bartramioides* Brid. I. 507.  
*Hookeri* Hmp. I. 496.
- CRYPTOTHECA** Hsch.  
*cochlearifolia* Hsch. II. 182.  
*densa* Hsch. II. 180.
- CUPRESSINA** Sect. II. 289. 685.
- CUPRESSINADELPHUS** Subsect. II. 215. 678.
- CYATHOPHORUM** P. B. II. 14. 659.  
*bulbosum* C. Müll. II. 14.  
*pennatum* Brid. II. 15.  
*pteridioides* P. B. II. 15.
- CYNODON** Brid.  
*cernuus* Brid. I. 267.  
*inclinatus* Brid. I. 41.  
*latifolius* Brid. I. 593.  
*luridus* Brid. I. 575.

- CYNODONTIUM** Schw.  
*Bruntoni* Br. Europ. II. 590.  
*capillaceum* Schw. I. 41.  
*cernuum* Schw. I. 267.  
*flexicaule* Schw. I. 449.  
*latifolium* Schw. I. 593.  
*longirostrum* Mart. I. 404.
- CYNONTODIUM** Hdw.  
*capillaceum* Hdw. I. 41.  
*cernuum* Hdw. I. 267.  
*inclinatum* Hdw. I. 41.  
*trematodum* P. B. I. 458.
- CYRTODON** R. Br.  
*splachnoides* ej. I. 139.
- CYRTODON** Sect. I. 138. II. 550.
- CYRTOPIUS** Brid.  
*crispatus* Brid. II. 140.  
*curtipendulus* Spruce. II. 116.  
*setosus* Brid. II. 162.
- CYRTOPIUS** Sect. II. 158. 674.
- DALTONIA** Hook. et Tayl. II. 16.  
 660.  
*affinis* Arn. II. 179.  
*angustifolia* Dz. et M. II. 18.  
 660.  
*bipinnata* Arn. II. 178.  
*composita* Arn. II. 178.  
*contorta* C. Müll. II. 660.  
*disticha* Arn. II. 47.  
*filamentosa* Arn. II. 154.  
*filiformis* Arn. II. 169.  
*fuscescens* Arn. II. 175.  
*heteromalla* Hook. et Tayl. II.  
 168.  
*heteromalla* H. et Wils. II. 168.  
*heterophylla* Arn. II. 58.  
*hypnoides* Arn. II. 178.  
*imbricata* Spr. II. 127.  
*intermedia* Arn. II. 49.  
*Jamesoni* Tayl. II. 19.  
*Lamyana* Mont. II. 168.  
*longifolia* Tayl. II. 19.  
*longipedunculata* C. Müll. II. 18.  
*nervosa* H. et Wils. II. 169.  
*nervosa* Hmp. II. 17. 660.  
*ovalis* Tayl. II. 19.  
*pennata* Arn. II. 50.  
*polytrichoides* Arn. II. 206.  
*scabriseta* Arn. II. 196.  
*splachnoides* Hook. et Tayl. II.  
 17. 660.  
*undulata* Arn. II. 147.
- DAWSONIA** R. Br. I. 225. II. 565.  
*polytrichoides* R. Br. I. 226.  
*superba* Grev. I. 226.
- DENDROGLOSSOPHYLLUM** Sect. II.  
 223. 680.
- DENDROLIGOTRICHUM** Sect. I. 199.  
 II. 559.
- DENDROPOGON** Schimp.  
*rufescens* ej. II. 176.
- DENDROPOGON** Subsect. II. 173. 675.
- DERMATODON** Hüb.  
*affinis* ej. I. 547.  
*cernuus* Hüb. I. 593.  
*cespitosus* ej. I. 548.  
*Funkii* ej. I. 550.  
*lanceolatus* ej. I. 549.  
*latifolius* ej. I. 550.  
*Starckii* ej. I. 547.
- DESMATODON** Brid.  
*amblyophyllus* Mont. I. 592.  
*Blyttii* Hartm. I. 595.  
*brevicaulis* Brid. I. 588.  
*cernuus* Br. I. 593.  
*curtus* Brid. I. 455.  
*dichotomus* Brid. II. 651.  
*flavicans* Br. I. 591.  
*flexifolius* Hmp. I. 578.  
*glacialis* Fk. I. 589.  
*Guepini* C. Müll. I. 590.  
*Güntheri* Sendtn. I. 588.  
*inclinatus* Sendtn. I. 593.  
*latifolius* Brid. I. 588. 589.  
*Laureri* Br. I. 595.  
*muticus* Brid. I. 589.  
*nervosus* Br. I. 590.  
*obliquus* Br. I. 594.  
*rupestris* Fk. I. 570.  
*spathulatus* Hartm. I. 589.  
*Systylius* Blytt. I. 588.  
*Systylius* Br. et Sch. I. 589.  
*Tortula* Bruch. I. 594.
- DESMATODON** Sect. I. 588. II. 629.
- DESMOSTOMUM** Hsch.  
*Bergianum* ej. I. 126.
- DICHELYMA** Myrin.  
*capillaceum* Br. et Sch. II. 144.  
 145.  
*falcatum* Myr. II. 143.  
*pallesceus* Br. et Sch. II. 145.  
*subulatum* Myr. II. 145.
- DICHELYMA** Sect. II. 142. 673.
- DICHOTOMARIA** Subsect. II. 164. 674.
- DICKSONIA** Ehrh.  
*pusilla* ej. I. 38.
- DICNEMON** Schw. I. 346.  
*calycinum* Schw. I. 347.  
*rugosum* Schw. I. 347.
- DICRANACEAE** Trib. I. 341. II. 583.
- DICRANELLA** Sect. I. 430. II. 605.



- DICRANOBRYUM** Sect. I. 309. II. 576.  
**DICRANODONTIUM** Br. Europ.  
*longirostrum* ej. I. 403.  
*longisetum* ej. I. 373.  
**DICRANOWEISIA** Schimp.  
*compacta* ej. II. 606.  
*microdonta* ej. II. 606.  
*subulata* ej. II. 605.  
**DICRANUM** Hdw. I. 351. II. 588.  
*aciculare* Hedw. I. 801.  
*aciculare* Turn. I. 800.  
*aciphyllum* H. et W. I. 378. II. 594.  
*adiantoides* Sw. I. 51.  
*affine* Fk. I. 358.  
*aggregatum* Br. I. 767.  
*albicans* Br. Europ. II. 594.  
*albicans* Schw. I. 77.  
*albidum* Web. et M. I. 75.  
*alpestre* Wahlenb. II. 591.  
*ambiguum* Hedw. I. 458.  
*aquaticum* Ehrh. II. 607.  
*aquaticum* Br. I. 800.  
*arctocarpum* C. Müll. I. 396.  
*arctocarpum* Hsch. I. 398.  
*arcuatum* Brid. I. 388.  
*arcuatum* Schleich. I. 798.  
*areodictyon* C. Müll. I. 394.  
*asplenioides* Sw. I. 69.  
*assimile* Hmp. I. 362. II. 590.  
*atro-virens* C. Müll. I. 414. II. 603.  
*Auberti* Bel. I. 397.  
*aulacocarpum* Mont. I. 432.  
*aureo-nitens* C. Müll. I. 406.  
*Bergeri* Bland. I. 357.  
*Berterianum* Brid. I. 539.  
*bicolor* Hsch. I. 392.  
*Billardierii* Schw. I. 368.  
*bipartitum* Sm. I. 646.  
*Blumii* Nees et H. I. 379.  
*Blytii* Br. et Sch. I. 364.  
*Bonjeani* De Not. I. 369.  
*Boryanum* H. et W. I. 370.  
*Boryanum* Schw. I. 362.  
*brachypelma* C. Müll. II. 595.  
*brachyphyllum* Hsch. I. 76.  
*brachyphyllum* Mitten. II. 597.  
*brevipilum* C. Müll. I. 412.  
*brevisetum* Dz. et M. I. 375.  
*brevisetum* Brid. I. 354.  
*Bridelianum* C. Müll. I. 354.  
*Bruntoni* Sm. II. 590.  
*bryoides* Hook. et Tayl. I. 59.  
*bryoides* Roth. I. 58.  
*caducum* Brid. I. 432.  
**DICRANUM.**  
*callistomum* Brid. I. 436.  
*calycinum* Brid. I. 351.  
*calycinum* Sw. I. 350.  
*campylophyllum* Tayl. II. 608.  
*candidum* Brid. I. 76.  
*capillaceum* Brid. I. 396.  
*capitiflorum* Mont. II. 598.  
*carneum* Bland. I. 437.  
*caudatum* C. Müll. I. 401.  
*Celsii* Hdw. I. 646.  
*cerviculatum* Hdw. I. 430.  
*chionophilum* C. Müll. I. 398.  
*chlorophyllosum* C. Müll. I. 395.  
*chloropus* Brid. I. 576.  
*circinnatum* Brid. I. 537.  
*cirrhatum* Timm. II. 585.  
*clathratum* H. et Wils. II. 608.  
*claratum* R. Br. I. 412.  
*Commersonianum* C. Müll. I. 353.  
*comosum* Schw. I. 397.  
*compactum* Fk. II. 610.  
*concolor* C. Müll. I. 390.  
*concolor* Hook. I. 391.  
*concolor* Nees. I. 397.  
*condensatum* Hdw. I. 357.  
*condensatum* Spr. I. 359.  
*congestum* Brid. I. 360. II. 590.  
*contortum* Wahlenb. I. 789.  
*convolutum* Hmp. I. 358. II. 589.  
*crispum* Hdw. I. 440.  
*Crügerianum* C. Müll. II. 588.  
*curvatum* Hdw. I. 434.  
*curvatum* Hsch. I. 435.  
*curvatum* Schz. I. 437.  
*curvifolium* Schl. I. 364.  
*cuspidatum* Hsch. I. 414.  
*cygneum* Hdw. I. 388.  
*cylindraceutum* Brid. I. 351.  
*cylindricum* W. et M. I. 441.  
*debile* H. et W. I. 444.  
*densum* C. Müll. I. 445.  
*densum* Fk. I. 393.  
*densum* Hmp. I. 445.  
*densum* Hook. I. 445.  
*denudatum* Brid. I. 403. II. 600.  
*dicarpum* Hsch. I. 363. II. 590.  
*dichotomum* Brid. I. 362. II. 590.  
*Dillenii* T. Tayl. I. 359.  
*diminutum* Brid. II. 403.  
*Dozyanum* C. Müll. I. 385.  
*Drummondi* C. Müll. I. 356.  
*durum* Layasc. I. 775.  
*ellipticum* Schw. I. 800.  
*elongatum* Schl. I. 365.

## DICRANUM.

- enerve* Hmp. I. 346.  
*enerve* Thed. II. 594.  
*erectum* C. Müll. I. 408.  
*erectum* Mitten. II. 600.  
*euchlorum* Mont. I. 442.  
*exasperatum* C. Müll. I. 384.  
*falcatum* Hdw. I. 363.  
*falcatum* Schrad. I. 358.  
*falcifolium* Hook. I. 39.  
*fasciatum* Brid. II. 388.  
*fasciatum* Hedw. I. 371.  
*fasciatum* Spr. I. 353.  
*fastigiatum* Schz. I. 358.  
*filifolium* C. Müll. I. 402.  
*filifolium* Hsch. I. 403.  
*filiforme* Hsch. I. 388.  
*filiforme* Schw. I. 427.  
*flagellaceum* C. Müll. II. 597.  
*flagellare* Hdw. I. 381.  
*flavescens* H. et T. II. 607.  
*flavidum* Schw. I. 430.  
*flexicaule* Brid. I. 360.  
*flexifolium* Hook. I. 651.  
*flexifolium* Hsch. I. 399.  
*flexuosum* Hdw. I. 400.  
*flexuosum* Hsch. I. 384. 399.  
*flexuosum* Schz. I. 400.  
*flexuosum* Turn. I. 393.  
*fluitans* Turn. I. 800.  
*fragile* Brid. I. 357.  
*fragile* Hook. I. 377.  
*fulvellum* Grev. I. 372.  
*fulvellum* Sm. I. 371. II. 593.  
*fulvum* H. et W. I. 380.  
*Funkii* C. Müll. I. 392. II. 598.  
*fuscescens* Hsch. I. 360.  
*fuscescens* Sm. I. 360.  
*Gayanum* Mont. I. 428.  
*gibbosum* Brid. II. 592.  
*giganteum* Brid. I. 490.  
*glaucum* Brid. I. 75.  
*glaucum* Hdw. I. 75.  
*gracilescens* W. et M. II. 591.  
*Grateloupii* C. Müll. I. 387. II. 596.  
*Grevilleianum* Br. et Sch. I. 439.  
*griseum* C. Müll. I. 406.  
*Groenlandicum* Brid. I. 366.  
*Guadeloupense* Brid. I. 386.  
*Guilleminianum* Mont. I. 440.  
*Helenicum* C. Müll. II. 599.  
*heteromallum* Hdw. I. 432.  
*heteromallum* Sulliv. I. 433.  
*Hilarianum* Mont. I. 443.  
*holomitrium* C. Müll. I. 389.

## DICRANUM.

- Homanni* Boek. II. 609.  
*Hostianum* Schw. I. 382.  
*humile* C. Müll. I. 384.  
*hypnoides* R. Br. I. 353.  
*imponens* Mont. I. 366. II. 592.  
*incrassatum* Kze. I. 408.  
*incurvum* Web. et M. I. 59.  
*innovans* C. Müll. I. 443.  
*intermedium* Crème. I. 358.  
*intermedium* Hdw. I. 646.  
*interruptum* Brid. I. 380.  
*interruptum* Hdw. I. 432.  
*introflexum* Hdw. I. 405.  
*involutifolium* Sulliv. II. 592.  
*Jamesoni* Hook. I. 391.  
*Jamesoni* Tayl. II. 608.  
*julaceum* H. et W. I. 427.  
*juniperifolium* Sendtn. I. 369.  
*juniperoideum* Brid. I. 78.  
*Kasbeckianum* Kolen. II. 594.  
*Kerguelense* C. Müll. I. 370.  
*Labradoricum* C. Müll. I. 366.  
*laeve* C. Müll. I. 409.  
*laevigatum* C. Müll. II. 601.  
*lamellatum* C. Müll. I. 411.  
*lamellicosta* C. Müll. II. 601.  
*lamellinerve* C. Müll. I. 390.  
*latifolium* Hedw. I. 589.  
*laxifolium* Brid. I. 436.  
*laxifolium* Hook. I. 589.  
*laxum* Brid. I. 612.  
*lepidophyllum* C. Müll. I. 407.  
*leucogaster* C. Müll. I. 387.  
*Liebmanni* C. Müll. II. 601.  
*longicollum* Brid. I. 458.  
*longifolium* Ehrh. I. 374.  
*longipilum* C. Müll. I. 411.  
*longirostratum* Brid. I. 357.  
*longirostrum* Schw. I. 360.  
*longisetum* Brid. I. 647.  
*longisetum* Hook. I. 372.  
*lophoneuron* C. Müll. II. 589.  
*lutescens* C. Müll. II. 602.  
*lycopodioides* Sw. I. 539.  
*macrocalyx* A. Br. I. 346.  
*macrodon* Hook. I. 377.  
*macrophyllum* Kze. I. 402.  
*macropus* Kze. I. 374.  
*majus* Sm. I. 360. II. 590.  
*Martianum* Hsch. I. 77.  
*megalophyllum* Radd. I. 77.  
*Menziesii* Tayl. II. 593.  
*microcarpum* Hook. II. 610.  
*Mitteni* C. Müll. II. 600.  
*mixtum* De Not. II. 591.

## DICRANUM.

- Mörkianum* Hsch. I. 367.  
*molle* C. Müll. I. 354.  
*montanum* Hdw. I. 379.  
*Mühlenbeckii* Br. et Sch. I. 370.  
 II. 592.  
*nanum* C. Müll. I. 383.  
*Nepulense* C. Müll. I. 384.  
*nivale* C. Müll. I. 393.  
*novae Hollandiae* Hsch. II. 386.  
*Oerstedianum* C. Müll. II. 596.  
*orthocarpum* Hdw. I. 433.  
*osmundioides* Sw. I. 61.  
*ovale* Hedw. I. 774.  
*ovatum* Fk. I. 797.  
*pallidum* Br. et Sch. I. 359. II.  
 590.  
*pallidum* W. et M. I. 451.  
*palmatum* Sw. I. 48.  
*palustre* Br. et Sch. I. 369.  
*palustre* Brid. I. 647.  
*palustre* La Pyl. I. 401.  
*parvulum* H. et W. I. 443.  
*parvulum* Hsch. I. 444.  
*patens* Sm. I. 798.  
*pellucidum* Hdw. II. 607.  
*penicillatum* Hsch. I. 415.  
*Perrottetii* C. Müll. I. 443.  
*Perrottetii* Mont. I. 434.  
*phascoides* Hook. I. 424.  
*phascoideum* P. B. I. 777.  
*planinervium* Tayl. II. 605.  
*polycarpum* Br. Europ. II. 592.  
*polycarpum* Ehrh. II. 591.  
*polycarpum* H. et T. II. 590.  
*polyphyllum* Sm. I. 767.  
*polypodioides* Sw. I. 52.  
*polysetum* Brid. I. 361.  
*polysetum* Sw. I. 355.  
*porphyreodictyon* C. Müll. I. 395.  
*proliferum* C. Müll. II. 602.  
*pubicum* Hsch. I. 407.  
*pubicum* Hsch. I. 407.  
*pulvinatum* Schw. I. 783.  
*pumilum* Saut. I. 431.  
*pungens* H. et W. I. 367. II. 592.  
*purpurascens* Hedw. I. 646.  
*purpureum* Hdw. I. 646.  
*pusillum* Hdw. I. 430.  
*recognitum* Röhl. I. 439.  
*recurvatum* Schz. I. 359.  
*reduncum* Dub. I. 374.  
*reduncum* Hsch. et R. I. 396.  
 II. 599.  
*reflectens* Brid. I. 359.  
*reflexifolium* C. Müll. I. 382.

## DICRANUM.

- reflexum* C. Müll. I. 373.  
*Reinwardti* Dz. et M. I. 437.  
*rhabdocarpum* Sulliv. II. 594.  
*Richardi* C. Müll. I. 413.  
*Richardsoni* Hook. II. 610.  
*rigidulum* Sw. I. 436.  
*rigidum* C. Müll. I. 409.  
*robustum* Blytt. I. 356.  
*robustum* H. et Wils. I. 361. II.  
 590.  
*rufescens* Turn. I. 436.  
*rugosum* Brid. I. 355.  
*rupestre* Brid. I. 360.  
*sanctum* Nees. I. 78.  
*Sauteri* Br. et Sch. I. 375. II. 594.  
*savannarum* C. Müll. II. 596.  
*saxicola* W. et M. I. 417.  
*Schleicheri* C. Müll. I. 393.  
*Schraderi* W. et M. I. 357.  
*Schreberi* Brid. I. 439.  
*Schreberi* Hdw. I. 439.  
*Schreberianum* Hook et Tayl. I.  
 439.  
*sciuroides* Sw. II. 108.  
*sclerocarpum* H. et W. I. 434.  
*scoparium* Hdw. I. 359. II. 589.  
*scoparium* H. et Tayl. I. 360. 361.  
*scoparium* Sulliv. I. 360.  
*scoparium* T. Tayl. I. 361.  
*Scottianum* H. et Tayl. I. 380.  
*Scottianum* Turn. I. 381.  
*secundum* Sw. I. 433.  
*Seligeri* Brid. I. 371. II. 584.  
*Sellowii* Hsch. I. 443.  
*Sendtneri* Flotow. I. 364.  
*sericeum* Hsch. I. 665.  
*setosum* H. et W. I. 368. II. 592.  
*Sieberianum* Hsch. I. 352. II. 588.  
*sinuosum* Brid. I. 354.  
*sinuosum* Brid. I. 397.  
*smaragdinum* C. Müll. I. 401.  
*speciosum* H. et W. I. 378.  
*speirophyllum* Mont. II. 595.  
*Sphagni* Wahlenb. I. 366.  
*splachnoides* Brid. I. 650.  
*Sprengelianum* C. Müll. I. 353.  
*spurium* Hdw. I. 356.  
*squarrosus* Starcke. I. 438.  
*Starckii* W. et M. I. 364.  
*stellatum* Brid. I. 580.  
*stenocarpus* C. Müll. II. 600.  
*stenopus* C. Müll. I. 404.  
*strictum* Schl. I. 376.  
*strictum* Sm. I. 647.  
*strumiferum* Ehrh. II. 592.

## DICRANUM.

- subaggregatum* R. Br. I. 363.  
*subfalcatum* Hsch. I. 415.  
*subimmarginatum* C. Müll. II. 589.  
*subulatum* Hdw. I. 433.  
*subulatum* Röhl. I. 800.  
*Sudeticum* Schw. I. 433.  
*sulcatum* C. Müll. I. 440.  
*Surinamense* C. Müll. I. 386.  
*tamarindifolium* Turn. I. 59.  
*taxifolium* Sw. I. 50.  
*tenellum* Pöch. II. 591.  
*tenuifolium* Bruch. I. 436.  
*tenuifolium* H. et W. I. 365. II. 592.  
*tenuirostre* Kze. I. 442.  
*tortifolium* A. Br. I. 437.  
*tortile* W. et M. I. 454.  
*trachyblephoron* C. Müll. I. 389.  
*truncatum* C. Müll. I. 410.  
*turfaceum* C. Müll. I. 399.  
*uncinatum* C. Müll. I. 404.  
*uncinatum* Sm. I. 430.  
*undulatum* Hook. Drumm. I. 356.  
*undulatum* Schrad. I. 357.  
*undulatum* Turn. I. 355.  
*ustulatum* Brid. I. 524.  
*vaginatum* Hook. II. 608.  
*vaginatum* H. et Wils. II. 607.  
*varium* Brid. I. 436.  
*varium* Hdw. I. 436.  
*virens* Hdw. II. 609.  
*virens* Wahlenb. II. 610.  
*viridissimum* Sm. I. 671.  
*viridulum* Sw. I. 58.  
*vulcanicum* Brid. I. 427.  
*xanthodon* Hedw. I. 651.  
*Zeyheri* C. Müll. I. 353.  
*Zollingerianum* C. Müll. II. 599.
- DIDYMODON** Hdw.
- aeneus* Schimp. II. 628.  
*aeruginosus* Hook. I. 570.  
*Anomodon* Buls. et De Not. II. 625.  
*aureus* De Not. I. 448.  
*brachydontius* Wils. I. 571.  
*brachypus* Hmp. I. 376.  
*Bruntoni* H. et Tayl. II. 590.  
*bulbosus* Hartm. I. 550.  
*bullatus* Hartm. I. 550.  
*calyptratus* Tayl. I. 462.  
*Capensis* Spr. I. 591.  
*capillaceus* Web. et M. I. 41.  
*cernuus* Sw. I. 267.  
*compressus* Schw. I. 42.

## DIDYMODON.

- crinalis* Tayl. II. 612.  
*crispulus* Wils. I. 571.  
*Cinclidotus* De Not. II. 651.  
*cirrhifolius* Harv. I. 462.  
*cirrhifolius* Mont. I. 447.  
*cylindricus* Br. I. 586.  
*cylindricus* Wahlenb. I. 441.  
*distichus* Brid. I. 41.  
*distichus* Schw. I. 42.  
*flavicans* Fk. I. 591.  
*flexicaulis* Brid. I. 449.  
*flexifolius* Hook. et Tayl. I. 578.  
*fragilis* Hook. I. 586.  
*glacialis* H. et Wils. II. 612.  
*glaucescens* W. et M. I. 569.  
*gracilis* Hook. I. 349.  
*grimmioides* Dub. I. 429.  
*heteromallus* Hook. I. 454.  
*homomallus* Hedw. I. 454.  
*ictericus* De Not. I. 576.  
*inclinatus* Sw. I. 41.  
*Klotzschii* Schw. I. 319.  
*latifolius* Wahlenb. I. 593.  
*leptocarpus* Br. et Sch. I. 583.  
*longifolius* Brid. I. 453.  
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*longirostris* W. et M. I. 403.  
*luridus* Hornsch. I. 575.  
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*medius* Dub. I. 429.  
*megalocarpus* W. Arn. I. 233.  
*nervosus* Hook. et Tayl. I. 591.  
*Nepalensis* Brid. I. 384.  
*oblongifolius* Hook. I. 591.  
*obscurus* Kaulf. II. 590.  
*pallidus* P. B. I. 451.  
*papillatus* Hook. et Wils. I. 686.  
*Pichinchensis* Tayl. I. 581.  
*plicatus* Mont. I. 447.  
*polycephalus* Mont. I. 462.  
*proscriptus* Hornsch. I. 450.  
*purpureus* Hook et Tayl. I. 646.  
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*rigidulus* Hdw. I. 570.  
*rubellus* Br. I. 582.  
*smaragdinus* Brid. I. 401.  
*sphagnifolius* W. Arn. I. 83.  
*splachnifolius* Hauk. I. 140.  
*squarrosus* Hook. I. 578.  
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*subulatus* Schk. I. 41.  
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*tenuirostris* Wils. I. 586.  
*tortilis* W. Arn. I. 454.  
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*Hornschuchii* Grev. et Arn. I. 137.

*Jaquemonti* Br. et Sch. I. 139.

*Magellanicus* Hmp. II. 551.

*plagiopus* C. Müll. 551.

*purpurascens* C. Müll. II. 550.

*rotundifolius* C. M. I. 140.

*scabrisetus* Gr. et Arn. I. 140.

*serratus* C. M. I. 140.

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*contortus* Brid. I. 789.

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*crispus* Brid. I. 810.

*curvifolius* Brid. I. 810.

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*corniculata* Wahlb. I. 584.

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*macroblepharis* C. Müll. II. 34.  
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*adiantoides* Hedw. I. 51. II. 529.  
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*amoennis* C. M. I. 66. II. 527.  
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*Dillenii* C. M. I. 45. II. 524.  
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*fasciculatus* Hook. I. 67. II. 528.  
*filicinus* Dz. et Molkb. I. 70. II. 529.  
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*fontanus* Schimp. II. 530.  
*genunervis* C. M. I. 70. II. 535.  
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*incurvus* Schw. I. 58. II. 529.  
*intermedius* C. M. I. 56. II. 530.  
*Julianus* Schimp. I. 44. II. 524.  
*Kegelianus* C. M. I. 49. II. 530.  
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*laxifolius* Hsch. I. 63. II. 527.  
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*radians* Br. et Sch. I. 123.  
*ramificans* Brid. I. 107.  
*serrata* Br. Europ. II. 541.  
*serrata* P. B. I. 111. II. 542.

C. Müller: Synops. musc. frond.

## FUNARIA.

- subnuda* Tayl. I. 111. II. 542.  
*Templetoni* Sm. I. 124.  
**FUNARIACEAE** Subtr. I. 105. II. 540.  
**FUNARIOIDEAE** Trib. I. 105. II. 539.  
**FUSCINA** Schrk.  
*bryoides* Schrk. I. 58.  
*glauca* Schrk. I. 75.  
*heteromalla* Schrk. I. 432.  
*purpurea* Schrk. I. 646.  
*sciuroides* Schrank. II. 108.  
*scoparia* Schrk. I. 359.  
*simplex* Schrk. I. 436.  
*taxifolia* Schrk. I. 50.  
*trichomanoides* Schrk. II. 230.  
**FUSICONIA** P. B.  
*androgyna* ej. I. 170.  
**GAGEA** Raddi.  
*compacta* ej. I. 667.  
**GARCKEA** C. Müll. I. 424. II. 604.  
*phascoides* C. Müll. I. 424.  
**GAROVAGLIA** Endl.  
*elegans* Dz. et M. II. 159.  
*plicata* Endl. II. 159.  
**GENTHIA** Bayrh.  
*patens* ej. II. 522.  
**GEORGIA** Ehrh. I. 180. II. 557.  
*Browniana* C. M. I. 181. II. 557.  
*Mnemosynum* Ehrh. I. 182.  
*reponda* C. M. I. 181.  
**GLOSSOPHYLLUM** Sect. II. 229. 681.  
**GLYPHOCARPA** Roylii Hook. fil. I. 478.  
*Abyssinica* Hmp. I. 506.  
*Capensis* R. Br. I. 503.  
*cernua* Wils. I. 479.  
*laevisphaera* Tayl. I. 507.  
*pusilla* I. 480.  
*quadrata* Schw. I. 503.  
*Webbii* Mont. I. 505.  
**GLYPHOCARPUS** Capensis Brid. I. 503.  
*quadratus* Brid. I. 503.  
**GLYPHOMITRIUM** Brid. I. 765. II. 649.  
*crispatum* Brid. I. 768.  
*Daviesii* Brid. I. 766.  
**GONIOMITRIUM** H. et Wils.  
*acuminatum* eor. II. 545.  
*enerve* eor. II. 545.  
**GRACILARIA** Sect. I. 751. II. 647.  
**GRIFFITHIA** Dicks.  
*Daviesii* ej. I. 766.  
**GRIMMIA** Ehrh. I. 776. II. 655.  
*Abyssinica* Br. et Sch. I. 772.

## GRIMMIA.

- acicularis* C. Müll. I. 801.  
*aciphylla* W. et M. I. 549.  
*acuta* Sm. I. 343.  
*affinis* Br. Germ. I. 797.  
*Africana* Hmp. I. 788.  
*albida* Spreng. I. 810.  
*alpestris* Schleich. I. 772.  
*alpicola* Sw. I. 777.  
*amblyophylla* C. Müll. I. 779.  
*ancistrodes* Dur. et Mont. I. 787.  
*anodon* Br. et Sch. I. 780. II. 655.  
*apiculata* Hsch. I. 791.  
*apocarpa* Hdw. I. 776.  
*apocarpa* Hook. et Wils. I. 779.  
*apocaulos* Dec. I. 777.  
*aquatica* C. Müll. I. 800.  
*arborea* Schrank. II. 168.  
*arcuata* De Not. I. 798.  
*arenaria* Hmp. I. 784.  
*atrata* Mielichh. I. 803.  
*atrovirens* Sm. I. 591.  
*australis* Hmp. I. 778.  
*australis* Hmp. I. 788.  
*Browniana* Engl. B. I. 181.  
*calcareo* Sm. I. 419.  
*calyptrata* Hook. I. 776.  
*campestris* Burchell. I. 794.  
*canescens* C. Müll. I. 807.  
*canescens* Schleich. I. 797.  
*capillata* De Not. I. 771.  
*capillata* Moench. I. 713.  
*catenulata* Web. et M. II. 477.  
*cernua* Br. I. 790.  
*cirrhata* Sm. II. 585.  
*commutata* Hüb. I. 774.  
*comosa* Dz. et M. I. 424.  
*compacta* Schleich. I. 655.  
*conferruminata* Wallr. I. 809.  
*conferta* Fk. I. 777.  
*comata* Kaulf. I. 549.  
*conostoma* Sm. I. 470.  
*consobrina* Kze. I. 785.  
*contermina* C. Müll. II. 655.  
*controversa* W. et M. I. 651.  
*convoluta* C. Müll. I. 802.  
*crassa* Spr. I. 625.  
*cribrosa* Hdw. I. 765.  
*crinita* Brid. I. 771.  
*crinita* Garovagl. M. C. I. 795.  
*crispata* Hook. I. 768.  
*crispipila* C. Müll. I. 808.  
*crispula* C. Müll. I. 804. II. 655.  
*crispula* Sm. II. 585.  
*curvirostra* Web. et M. I. 582.

## GRIMMIA.

- curvula* Br. I. 784.  
*cygnicolla* Tayl. I. 784.  
*cylindracea* Web. et M. II. 471.  
*cylindrica* Br. I. 797.  
*cylindrica* C. Müll. I. 805.  
*Daviesii* Turn. I. 766.  
*depilis* C. Müll. I. 778.  
*didyma* Mont. I. 802.  
*Drummondi* Hook. et Wils. I. 770.  
*Eckloni* Spreng. I. 787.  
*elatior* Br. I. 798.  
*elliptica* C. Müll. I. 799.  
*elliptica* Fk. I. 774.  
*elongata* Kaulf. I. 792.  
*ericoides* Br. I. 804.  
*falcata* Hook. et Wils. I. 782. II. 655.  
*fascicularis* C. Müll. I. 808.  
*fasciculata* Br. I. 718.  
*fasciculata* Brid. I. 777.  
*filiformis* Web. et Mohr. II. 90.  
*fontinaloides* Hook. II. 151.  
*Forsteri* Dicks. I. 667.  
*Forsteri* Hook. I. 671.  
*fuliginosa* Schimp. I. 778.  
*funalis* Br. I. 799.  
*fusca* Br. I. 777.  
*fusco-lutea* Hook. I. 790.  
*Gebhardi* Spreng. I. 810.  
*geniculata* Schw. I. 417.  
*glacialis* Br. I. 777.  
*glyphomitrioides* Bals. I. 770.  
*Helvetica* Schk. I. 777.  
*heteromalla* W. et M. I. 454.  
*heterosticha* C. Müll. I. 807.  
*Hoffmanni* C. Müll. I. 780.  
*homomalla* Sm. I. 454.  
*Hookeri* Drumm. I. 770.  
*imberbis* Kze. I. 788.  
*inclinata* Sm. I. 41.  
*inconspicua* Bertol. II. 32.  
*incurva* Br. I. 790.  
*incurva* Mühlenb. I. 770.  
*incurva* Schleich. I. 784.  
*incurva* Schw. I. 788.  
*Jacquini* Garov. I. 773.  
*julacea* Hsch. II. 173.  
*laevigata* Brid. I. 794.  
*lanprocarpa* C. Müll. I. 802.  
*lanceolata* W. et M. I. 549.  
*lanuginosa* C. Müll. I. 806.  
*latifolia* Br. I. 777.  
*latifolia* W. et M. I. 550.  
*laxa* C. Müll. I. 771.

## GRIMMIA.

- latifolia* Hook. fil. I. 782.  
*leiocarpa* Tayl. I. 794.  
*leucophaea* Grev. I. 794.  
*Lisae* De Not. I. 786.  
*longirostris* Hook. I. 795.  
*mammillaris* Pösch. I. 775.  
*maritima* Hmp. I. 778.  
*maritima* Turn. I. 781.  
*microcarpa* C. Müll. I. 804.  
*mollis* Br. Europ. II. 656.  
*montana* Br. I. 774.  
*Mühlenbergii* Brid. I. 770.  
*mutabilis* Opitz. II. 82.  
*nana* Schleich. I. 810.  
*nigricans* Lam. I. 797.  
*nigrita* C. Müll. I. 801.  
*nigrita* Sm. Fl. Br. I. 510.  
*nuda* Turn. I. 150.  
*nutans* Bruch. I. 810.  
*obliqua* Br. I. 797.  
*oblonga* Schrank. I. 708.  
*obtusa* Br. I. 780.  
*obtusa* Schwägr. I. 796.  
*Oertzeniana* Schultz. I. 794.  
*orbicularis* Br. I. 775.  
*ornithopodioides* Web. et Mohr.  
 II. 98.  
*ovata* Schrk. I. 694.  
*ovata* Web. et Mohr. I. 796.  
*parasitica* Voit. I. 420.  
*patens* Br. I. 797.  
*patens* Br. I. 797.  
*Pensylvanica* Schw. I. 792.  
*pilifera* Fk. I. 550.  
*pilifera* P. B. I. 791.  
*plagiopodia* Hdw. I. 779.  
*plagiopus* Schw. I. 780.  
*plicata* Opitz. II. 82.  
*polyodon* Ehrh. I. 777.  
*pomiformis* Brid. I. 531.  
*procera* Bals. et De Not. I. 804.  
*pullulans* Spr. II. 611.  
*pulvinata* Hook. et Tayl. I. 783.  
*pusilla* Schrad. I. 419.  
*pygmaea* C. Müll. I. 787.  
*ramosa* Schleich. I. 810.  
*recurvata* Hdw. I. 420.  
*recurvirostris* Sm. I. 582.  
*reflexidens* C. Müll. I. 795.  
*rigida* Brid. I. 781.  
*robusta* Br. I. 777.  
*rubella* Roth. I. 582.  
*rupestris* C. Müll. I. 803. II. 655.  
*Sardoa* De Not. I. 786.  
*Schimperi* Br. et Sch. I. 792.

## GRIMMIA.

- Schisti* Sm. I. 650.  
*Schleicheri* Spreng. I. 777.  
*Schultzii* Hüb. I. 785.  
*sciuroides* Br. I. 797.  
*Seligeri* W. et M. I. 419.  
*Sinaica* Brid. I. 772.  
*spiralis* Hook. et Taylor. I. 789.  
*splachnoides* Engl. Bot. I. 139.  
*Starkeana* W. et M. I. 547.  
*stenocarpa* Br. I. 652.  
*striata* Hdw. I. 708.  
*striata* W. et M. I. 649.  
*strigosa* Brid. I. 777.  
*Sudetica* Schwägr. I. 796.  
*sulcata* Hmp. I. 773.  
*sulcata* Saut. I. 773.  
*sulcipila* C. Müll. I. 805.  
*sylvatica* Willd. I. 713.  
*symphyodonta* C. Müll. I. 809.  
*Tergestina* Tommas. I. 794.  
*torquata* Hsch. I. 683.  
*Torreyana* Brid. I. 777.  
*torta* Br. I. 682.  
*tortuosa* Hook. et Wils. I. 782.  
 II. 655.  
*trichodon* Brid. I. 777.  
*trichophylla* Grev. I. 785.  
*trichophylla* Hmp. I. 788.  
*trifaria* W. et M. I. 420.  
*tristicha* Schw. I. 420.  
*uncinata* Kaulf. I. 789.  
*unicolor* Grev. I. 793.  
*urceolaris* Br. I. 777.  
*ventricosa* Schleich. I. 810.  
*verticillata* W. et M. I. 656.  
*Zahlbruckneri* Garov. I. 784.  
 GRIMMIEAE Hemic. I. 764. II. 648.  
 GUEMBELLIA Hmp. I. 770. II. 649.  
*Abyssinica* Hmp. I. 772. II. 650.  
*alpestris* Hmp. I. 772. II. 650.  
*ambigua* C. Müll. II. 649.  
*aquatica* C. Müll. II. 652.  
*caespiticia* C. Müll. I. 773. II.  
 650.  
*calyptrata* C. Müll. I. 775. II.  
 650.  
*crinita* Hmp. I. 771. II. 650.  
*elliptica* Hmp. I. 774.  
*fontinaloides* C. Müll. II. 652.  
*laxa* C. Müll. I. 771. II. 649.  
*montana* Hmp. I. 774. II. 650.  
*orbicularis* Hmp. I. 775. II. 650.  
*ovalis* C. Müll. I. 774. II. 650.  
*riparia* C. Müll. II. 651.  
*Scouleri* C. Müll. II. 654.

## GUEMBELIA.

*Sinaica* Hmp. I. 772. II. 650.

## GYMNOCEPHALUS Schw.

*androgynus* ej. I. 169.

*conoideus* ej. I. 667.

*palustris* ej. I. 169.

## GYMNOSTOMUM.

*acaule* W. et M. I. 566.

*acidotum* Tayl. II. 547.

*acuminatum* Schl. I. 115.

*aeruginosum* Sm. I. 658.

*aestivum* Hedw. I. 683.

*affine* Bryol. Germ. I. 551.

*Ahnfelti* Fr. I. 122.

*amblyophyllum* Hook. I. 557.

*apophysatum* Tayl. I. 122.

*aquaticum* Brid. II. 653.

*articulatum* Schkuhr. I. 657.

*Barbula* Hook. et Wils. I. 559.

*Barbula* Schwägr. I. 558.

*bicolor* Br. I. 564.

*blandum* Hook. I. 558.

*Bonplandii* I. 118.

*Breutelii* Br. I. 664.

*brevicaule* Tayl. I. 556.

*brevisetum* Br. I. 658.

*calcareum* Nees et Hsch. I. 659.

*Capense* Hook. I. 503.

*carbunculoides* De Not. I. 548.

*cespiticium* W. et M. I. 345.

*ciliatum* Roth. II. 164.

*ciliatum* Schl. II. 104.

*cirrhatum* Schrk. II. 586.

*Combae* De Not. II. 622.

*compactum* Schleich. I. 683.

*complanatum* H. et W. I. 190.

*condensatum* Voit. I. 662.

*conicum* Schw. I. 555.

*curvirostrum* Hedw. I. 658.

*curvisetum* Schw. I. 121.

*cuspidatum* Röhl. I. 553.

*cylindricum* Hook. I. 562.

*Davallianum* W. et M. I. 416.

*decipiens* Web. et Mohr. I. 771.

*dilatatum* P. B. I. 116.

*Donianum* Engl. Bot. I. 420.

*ericetorum* Bals. et De Not. I. 122.

*erythrostromum* Br. I. 657.

*euchlorum* Schw. I. 684.

*euchlorum* Zeyher. I. 561.

*eurystoma* Nees. I. 115.

*fasciculare* Hdw. I. 120.

*flaccidum* Brid. I. 565.

*foliosum* Röhl. I. 565.

*gracile* Hook. I. 187.

## GYMNOSTOMUM.

*gracillimum* Br. I. 659.

*Griffithianum* Sm. I. 129.

*Guadelupense* Spr. I. 684.

*Hedwigia* Web. et M. II. 164.

*Heimii* Hedw. I. 552.

*homomallum* Brid. II. 612.

*Hornschuchianum* Br. et Sch. I. 686.

*Hornschuchianum* Fk. I. 685.

*hymenostomoides* Pösch. I. 662.

*imberbe* Engl. Bot. II. 106.

*inclinans* Hook. I. 185.

*intermedium* Schw. I. 554.

*involutum* Hook. I. 560.

*irretitum* Brid. I. 654.

*Jamesoni* Tayl. II. 624.

*Jamesoni* W. Arn. I. 119.

*Japonicum* Hdw. I. 557.

*Javanicum* Nees ab Es. I. 561.

*julaceum* Hook. I. 429.

*lamprocarpum* Mont. I. 684.

*Lapponicum* Hedw. I. 680.

*latifolium* Hook. I. 115.

*laxifolium* Kze. I. 685.

*Leptostomum* Hook. I. 187.

*linearifolium* Tayl. I. 682.

*longirostre* Br. et Sch. I. 553.

*longirostre* Kze. I. 563.

*luteolum* Engl. Bot. I. 683.

*marginatum* Kze. I. 657.

*Maschalocarpus* De Not. I. 684.

*Menziesii* Hook. I. 186.

*micaceum* Schlichtd. I. 663.

*microcarpum* Br. I. 658.

*microstomum* Hedw. I. 661.

*minutulum* Schw. I. 555.

*Niloticum* Delil. I. 565.

*obtusifolium* R. Br. I. 556.

*obtusum* Turn. I. 551.

*Orbignianum* Mont. I. 117.

*osmundaceum* Hoffm. I. 38.

*ovatum* Hdw. I. 551.

*pachyloma* Mont. II. 653.

*pallidisetum* Br. I. 658.

*paucifolium* Engl. Bot. I. 660.

*pennatum* Hdw. I. 38.

*phascoides* Drumm. I. 661.

*pomiforme* Nees et H. I. 658.

*prorepens* Hedw. I. 687.

*pulvinatum* Hoffm. I. 780.

*pusillum* Hedw. I. 551.

*pyriforme* Hdw. I. 116.

*pyriforme* Voit. I. 113.

*quadratum* Hook. I. 503.

*reflexum* Brid. I. 555.

## GYMNOTOMUM.

- rigescens Br. et Sch. I. 659.  
 Rottleri Schw. I. 121.  
 rufescens Hook. I. 561.  
 rufescens Schultz. I. 555.  
 rupestre Schw. I. 657.  
 sepincola Fk. I. 661.  
 serpens Schrk. II. 412.  
 setifolium Hook. I. 504.  
*simplicissimum* Br. I. 564.  
 solivagum Green. I. 554.  
 spathulatum Harv. I. 559.  
 spathulatum Hsch. I. 118.  
 sphaericum Schw. I. 115.  
 splachnoideum P. B. I. 116.  
 stelligerum Sm. I. 657.  
 striatum Brid. I. 680.  
 subsessile Schw. I. 566.  
 subulatum Br. Germ. II. 584.  
*Systylium* Fk. I. 551.  
 tenue Schrad. I. 660.  
 tetragonum Schw. I. 113.  
 tortile Schw. I. 662.  
 tortipes Brid. I. 116.  
 Tortula Schw. I. 560.  
 Trafoiense Schimp. I. 653.  
 trichodes W. et M. I. 416.  
 tristichon Wahlenb. I. 683.  
 truncatulum Hedw. I. 553.  
 truncatum Hedw. I. 553.  
 turbinatum Rich. I. 116.  
 vernicosum Hook. I. 557.  
 viridissimum Hook. I. 671.  
 viridulum Brid. I. 659.  
 Wilsoni Hook. I. 554.  
 Wimmerianum Sendtn. I. 653.  
 xanthocarpum Hook. I. 563.

## GYMNOWEISIA Br. Eur.

- bicolor ej. I. 564.

## HAPLOHYMENIUM Dz. et M. et Schw.

- microphyllum Schw. II. 490.  
 Sieboldi eor. II. 81.

## HARRISONIA Spr.

- Humboldtii Spr. II. 102.  
 Schimperiana Hmp. II. 105.  
 secunda Spr. II. 103.  
 squarrulosa Hmp. II. 105.

## HARRISONIA Subsect. II. 102. 667.

## HEDWIGIA Ehrh.

- aestiva Hook. II. 637.  
 anodon Ehrh. II. 164.  
 apocarpa Leyss. II. 164.  
 aquatica Hdw. II. 653.  
 ciliata Ehrh. II. 164.

## HEDWIGIA.

- diaphana P. B. II. 164.  
 Hornschuchiana Hook. I. 685.  
 Humboldtii Hook. II. 102.  
 imberbis Spruce. II. 106.  
 integrifolia P. B. II. 164.  
 Lapponica Brid. I. 680.  
*pachyloma* Mont. II. 653.  
 Schimperiana Br. et Sch. II. 104.  
 Schimperiana Hmp. II. 105.  
 Schmidtii Hook. II. 110.  
 sciuroides Bals. et De Not. II. 104.  
 secunda Grev. II. 104.  
 secunda Hook. 103.  
 HEDWIGIDIUM Br. et Sch.  
 imberba eor. II. 106.  
 HELICODONTIUM Schw.  
 seminerve Schw. II. 244.  
 Fabronia Schw. II. 271.  
 tenuirostre Schw. II. 411  
 HELICOPHYLLUM Brid. II. 15.  
*torquatum* Brid. II. 15.  
 HEMISYNAPSIUM Brid.  
 Arcticum Brid. I. 270.  
 bryoides Brid. I. 274.  
 HIPPOPODIUM Fabr.  
 aphyllum ej. I. 151.  
 HOLLIA Sieb.  
 myrmecodes ej. II. 586.  
 HOLOBLEPHABUM Dz. et M.  
 leptopoma eor. II. 215.  
 orthorrhynchum eor. II. 214.  
 HOLOMITRIUM Brid. I. 349.  
*crispulum* Mart. I. 350.  
 enerve Dz. et M. I. 346.  
 Moritzianum Hmp. I. 350.  
*Olfersianum* Hsch. I. 349.  
*perichaetiale* Brid. I. 351.  
*vaginatum* Brid. I. 350.  
 HOMOMALLIA Subsect. II. 425. 689.  
 HOOKERIA Sm. II. 187. 676.  
 acuminata Schl. I. 136.  
*acutifolia* Hook. II. 202.  
 affinis Arn. II. 218.  
*affinis* C. Müll. II. 199.  
*albata* C. Müll. II. 191.  
*albicans* Hook. II. 189.  
*albicans* Tayl. II. 187.  
 ancistrodes Mont. II. 153.  
*anomala* C. Müll. II. 204.  
*apiculata* H. et Wils. II. 203.  
 Arbuscula Sm. II. 229.  
*asplenioides* Arn. II. 202.  
*Auberti* C. Müll. II. 190.  
*Blumeana* C. Müll. II. 676.

## HOOKERIA.

- callicostata* C. Müll. II. 216.  
*chloroneura* Tayl. II. 197.  
*cirrhifolia* Arn. II. 282.  
*contortifolia* Mont. II. 23.  
*convallium* C. Müll. II. 200.  
*convoluta* Spr. II. 118.  
*crispatula* Hook. et Grev. II. 140.  
*crispula* Hook. et Wils. II. 25.  
*cristata* Arn. II. 205.  
*cristata* Hsch. et R. II. 207.  
*Crügeriana* Sond. II. 208.  
*cupressiformis* C. Müll. II. 215.  
*cuspidata* C. Müll. II. 189.  
*cuspidata* Dz. et M. II. 26.  
*denticulata* H. et Wils. II. 203.  
*Deppeana* C. Müll. II. 196.  
*depressa* H. et Tayl. II. 218.  
*diaphana* Arn. II. 199.  
*Dicksoni* Hook. II. 25.  
*elongata* Dz. et M. II. 213.  
*erectiuscula* Tayl. II. 197.  
*falcata* Hook. II. 216.  
*filiculaeformis* Sm. II. 5.  
*fliformis* Hook. II. 212.  
*fissidentoides* H. et Wils. II. 217.  
*flabellata* Sm. II. 225.  
*flaccida* Hook. et Wils. II. 23.  
 661.  
*flavescens* H. et Gr. II. 211.  
*flexilis* Sm. II. 129.  
*Freycineti* Mont. II. 26.  
*gigantea* Hsch. II. 209.  
*Grevilleana* Tayl. II. 196.  
*Guadalupensis* C. Müll. II. 212.  
*Hornschuchiana* Hmp. II. 218.  
*hypnoides* Hsch. II. 342.  
*incurva* H. et Grev. II. 192.  
*intermedia* C. Müll. II. 195.  
*Jagiana* C. Müll. II. 191.  
*laete-virens* Hook. et Tayl. II.  
 187.  
*Langsdorffii* Hook. II. 193.  
*latifolia* C. Müll. II. 199.  
*leptopoma* C. Müll. II. 215, 678.  
*leptorrhyncha* H. et Gr. II. 213.  
*leskeoides* Hook. II. 463.  
*Lindenbergii* Hmp. II. 198.  
*longipedunculata* C. Müll. II.  
 221.  
*lucens* Sm. II. 201.  
*marginata* H. et Wils. II. 188.  
*Martiana* Hsch. II. 219.  
*membranacea* C. Müll. II. 200.  
*Merkelii* Hsch. II. 218.  
*Meyeniana* Hmp. II. 234.

## HOOKERIA.

- microcarpa* Hsch. II. 217.  
*microdendron* Mont. II. 231.  
*mniifolia* Hsch. II. 22.  
*mniifolia* Mont. II. 22.  
*mollis* Wils. II. 222.  
*Mülleri* Hmp. II. 195.  
*nervosa* Hook. et Wils. II. 18.  
 660.  
*nitens* Hsch. II. 193.  
*nivalis* C. Müll. II. 188.  
*obliqua* Hmp. II. 218.  
*obscura* Mont. II. 204.  
*obtusifolia* Harv. II. 233.  
*Oerstediana* C. Müll. II. 679.  
*Olfersiana* Hsch. II. 188.  
*orthorrhyncha* Dz. et M. II. 214.  
*pallescens* Hook. II. 211.  
*pallida* Hsch. II. 220.  
*papillata* Mont. II. 219, 678.  
*papillata* Tayl. II. 222.  
*Pappeana* Hmp. II. 194.  
*paradoxa* Mont. II. 25.  
*Parkeriana* Hook. II. 194.  
*parvifolia* Tayl. II. 233.  
*Patrisiae* Hmp. II. 198.  
*pendula* Hook. II. 210.  
*pennata* Sm. II. 15.  
*Perrini* Spr. II. 206.  
*Philippinensis* Mont. II. 213.  
*pilifera* H. et Wils. II. 210.  
*Pöppigiana* Hmp. II. 235.  
*polytrichoides* Spr. II. 205.  
*Prabaktiana* C. Müll. II. 678.  
*praelonga* Arn. II. 236.  
*prostrata* Harv. II. 345.  
*pulchella* Hook. et Wils. II. 23.  
 661.  
*punctata* Hook. et Wils. II. 28.  
*quadrifaria* Hook. II. 21.  
*radiculosa* Hook. II. 232.  
*radiculosa* Hsch. II. 232.  
*raphidostega* C. Müll. II. 677.  
*repens* H. et Grev. II. 212.  
*rigida* Arn. II. 222.  
*rotulata* Sm. II. 10.  
*rotundifolia* Hook. et Wils. II. 21.  
*scabriseta* Hook. II. 220.  
*scabriseta* Schw. II. 221.  
*scabriuscula* C. Müll. II. 221.  
*Sellowii* Hsch. II. 243.  
*seminervis* Mont. II. 24.  
*spathulata* Dz. et M. II. 24.  
*spinosa* C. Müll. II. 677.  
*splachnoides* Hook. II. 17.  
*splachnoides* Schl. I, 136.

## HOOKERIA.

- splendidissima* Mont. II. 203.  
*strumosa* Hsch. II. 239.  
*subenervis* Hmp. II. 196.  
*sublimbata* C. Müll. II. 191.  
*Swartzii* Schw. II. 200.  
*tamariscina* Sm. II. 8.  
*Taylori* C. Müll. II. 222.  
*tomentosa* Grev. II. 12. 14.  
*trichopus* C. Müll. II. 207.  
*uncinata* Sm. II. 319.  
*undata* Hmp. II. 209.  
*Utacamundiana* Mont. II. 197.  
*vesiculosa* C. Müll. II. 190.  
*Webbiana* Mont. II. 230.  
*Weigeltiana* C. Müll. II. 221.

## HYDROPOGON Brid.

- fontinaloides* Brid. II. 151.

HYMENODON Hook. et Wils. I. 178.  
II. 556.

- aeruginosus* C. Müll. I. 179.  
*ovatus* C. Müll. II. 557.  
*piliferus* Hook. et Wils. I. 179.  
*sericeus* C. Müll. I. 178.

## HYMENOPOGUM P. B.

- heterophyllum* P. B. I. 812.

## HYMENOSTOMUM R. Br.

- brachycarpum* I. 661.  
*contortum* Kze. I. 562.  
*crispatum* Br. I. 662.  
*cylindricum* Br. et Sch. I. 664.  
*involutifolium* C. Müll. I. 560.  
*microstomum* R. Br. I. 661.  
*murale* Spruce. II. 633.  
*nitidulum* Br. I. 663.  
*obliquum* Br. I. 661.  
*obtusifolium* C. Müll. I. 558.  
*phascoides* Wils. II. 634.  
*planifolium* Sendtn. II. 634.  
*rutilans* Br. I. 652.  
*subglobosum* Br. I. 651. 663.  
*squarrosus* Br. I. 663.  
*tortile* Br. I. 662.  
*xanthocarpum* Br. I. 563.

## HYMENOSTOMUM Sect. I. 660. II. 633.

## HYMENOSTYLIIUM Sect. I. 562. II. 624.

## HYOPHILA Brid.

- Barbula* Hmp. I. 558.  
*Caripensis* ej. I. 560.  
*Gardneri* ej. I. 558.  
*Harveyana* ej. I. 562.  
*Hookeri* ej. I. 560.  
*Javanica* Brid. I. 561.  
*Tortula* Hmp. I. 560.  
*Wilsoni* ej. I. 559.

## HYOPHILA Sect. I. 558. II. 622.

## HYOPHILADELPHUS Sect. I. 604. II. 630.

## HYOPHILIDIUM Sect. I. 528. II. 621.

## HYOPHILINA Sect. I. 523. II. 620.

## HYPNACEAE Subtr. II. 186. 676

## HYPNELLA Sect. II. 208. 678.

## HYPNODENDRON Sect. II. 691. 496.

## HYPNOIDEAE Trib. II. 28. 661.

## HYPNUM Dill. II. 223. 679.

- abbreviatum* Schl. II. 428.  
*abietinum* Hook. II. 488.  
*abietinum* L. II. 482.  
*acanthoneuron* Schw. I. 177.  
*acanthophyllum* Mont. II. 398.  
*aciculare* Brid. II. 441.  
*aciculare* Scop. I. 801.  
*aciculatum* C. Müll. II. 224.  
*acinacifolium* Hmp. II. 239.  
*aciphyllum* Web. et M. I. 161.  
*acrorrhizon* Hsch. II. 274.  
*acuminatum* P. B. II. 334.  
*acuminulatum* Hsch. II. 265.  
*acutifolium* Hook. et Wils. II. 251.

*adanthum* Neck. II. 461.*adiantoides* L. I. 51.*adnatum* Hdw. II. 339.*adnatum* Turn. II. 424.*aduncoides* C. Müll. II. 295.*aduncum* L. II. 323.*aeruginosum* C. Müll. II. 304.*affine* Bruch. II. 368.*affine* Crome. II. 455.*affine* Hoffm. II. 420.*affine* Hook. II. 256.*affine* Sommerf. II. 436.*albans* Gmel. II. 190.*albescens* Schw. II. 279.*albicans* Brid. II. 361.*albicans* Neck. II. 360.*albicans* Sw. II. 190.*albulum* C. Müll. II. 280.*Algirianum* Desf. II. 396.*Algoicum* Fröhl. II. 477.*Alleghaniense* C. Müll. II. 502.*alopecuroides* Hook. II. 501. 692.*alopecuroides* Hook. II. 426.*alopecuroides* Lam. II. 499.*alopecurum* L. II. 501.*alpestre* Hdw. II. 431.*alpestre* Sw. II. 431.*alpinum* Sm. II. 351.*alternans* Brid. II. 508.*aluminicolum* C. Müll. II. 291.

## HYPNUM.

- ambiguum* Harv. II. 340.  
*ambiguum* Schrad. II. 324.  
*ambiguum* Vill. II. 509.  
*amoenum* Hdw. II. 316.  
*amoenum* Hook. II. 293. 308.  
*andicolum* Hook. II. 269.  
*Andrieuxii* C. Müll. II. 348.  
*androgynum* Web. et M. I. 171.  
*androgynum* Wils. II. 432.  
*aneurodictyon* C. Müll. II. 681.  
*angustatum* C. Müll. II. 472.  
*annotinum* W. et M. I. 331.  
*antipyreticum* Neck. II. 148.  
*antipyreticum*  $\beta$ . Neck. II. 652.  
*apiculatum* Hartm. II. 466.  
*apiculatum* Hsch. II. 305.  
*appressum* Brid. II. 338.  
*appressum* Hsch. II. 136.  
*aquaticum* Fk. II. 351.  
*aquaticum* Jacq. II. 653.  
*aquaticum* Pall. II. 426.  
*aquatile* Mart. II. 425.  
*Arbuscula* Brid. II. 502.  
*Arbuscula* Hook. II. 228.  
*Arbuscula* P. B. II. 5.  
*Armoricum* Brid. II. 437.  
*arcticum* Sommerf. II. 432.  
*arcuatum* Hdw. II. 13.  
*argenteum* Schrk. I. 314.  
*argute-serratum* C. Müll. II. 242.  
*arrhizon* Brid. II. 421.  
*arundinifolium* Dub. I. 490.  
*asperulum* Brid. II. 351.  
*asperum* Hook. II. 454.  
*asplenioides* Sw. I. 69.  
*asplenioides* Thunb. I. 73.  
*asprellum* Schw. II. 351.  
*Atlanticum* Desf. II. 426.  
*atrovirens* Sm. II. 479.  
*atrovirens* Sw. II. 447.  
*attenuatum* Brid. II. 360.  
*attenuatum* Schreb. II. 473. 690.  
*Auberti* Herb. II. 265.  
*Auberti* Schw. II. 262.  
*aureo-nitens* Hook. II. 377.  
*aurescens* C. Müll. II. 371.  
*aureum* Lag. II. 371.  
*aureum* Lam. II. 386.  
*auriculatum* Mont. II. 373.  
*Australe* C. Müll. II. 302.  
*Badense* A. Br. II. 255.  
*badium* Hartm. II. 324.  
*bartramiocarpum* C. Müll. II. 683.

## HYPNUM.

- Bavaricum* Voit. II. 492.  
*Berteroanum* Mont. II. 243.  
*Berthelotianum* Mont. II. 375.  
*Beyrichii* Hsch. II. 403.  
*bicolor* Bél. II. 407.  
*bicolor* Fröhl. II. 322.  
*bifarium* Hook. I. 173.  
*bifidum* Brid. I. 354.  
*Blandowii* Web. et Mohr. II. 454.  
*blandum* Lyell. II. 376.  
*Bonplandii* C. Müll. II. 463.  
*Borbonicum* C. Müll. II. 315.  
*Boreale* W. et M. I. 280.  
*Borrerianum* Spruce. II. 279.  
*Boryanum* Schw. II. 245.  
*Boschii* Dz. et Molk. II. 404.  
*Boschii* Schw. II. 375.  
*brachycarpum* Hmp. II. 328.  
*brachycladon* Arn. II. 336.  
*brachycladon* Brid. II. 462.  
*brachyneuron* C. Müll. II. 278.  
*brachypelma* C. Müll. II. 404.  
*brachypodium* C. Müll. II. 445.  
*brachypoma* Schw. II. 283.  
*brachypterum* Hsch. II. 248.  
*Braunii* C. Müll. II. 687.  
*Breutelii* Schimp. II. 345.  
*brevifolium* Schl. II. 491.  
*brevirostrum* Brid. II. 460.  
*brevirostrum* Ehrh. II. 459.  
*brevipes* C. Müll. II. 232.  
*brevisetum* Hsch. II. 286.  
*Bruchii* Dz. et Molk. II. 388.  
*bryiforme* Brid. II. 335.  
*bryoides* L. I. 58.  
*bryoides* Vill. II. 509.  
*Buchanani* Hook. II. 362.  
*Buitenzorgi* Bél. II. 302.  
*byssoideum* Brid. II. 414.  
*callichroum* Brid. II. 294.  
*callidum* Mont. II. 313.  
*campestre* Bruch. II. 368.  
*campylocarpum* C. Müll. II. 249.  
*Canariense* Brid. II. 110.  
*canescens* Web. I. 806.  
*canescens* Weis. I. 807.  
*capillaceum* Starck. II. 359.  
*capillare* Fröhl. II. 412.  
*capillare* Sw. II. 410.  
*capillare* W. et M. I. 281.  
*carinatum* Scop. II. 508.  
*carneum* W. et M. I. 295.  
*Carolinianum* C. Müll. II. 327.  
*Cassubicum* Dicks. II. 369.



## HYPNUM.

- Cassubicum* Scop. II. 371.  
*catenatum* Vill. II. 477. 509.  
*catenulatum* Brid. II. 477.  
*catenulatum* H. et T. II. 438.  
*caturum* P. B. II. 476.  
*Caucasicum* Brid. II. 421.  
*cavifolium* C. Müll. II. 342.  
*cespitans* C. Müll. II. 354.  
*cespiticum* W. et M. I. 272. 284.  
*cespitosum* Sw. II. 330.  
*cespitosum* Wils. II. 355.  
*Chamissonis* Hsch. II. 305.  
*Chamissonis* Mont. II. 301.  
*chlamydophyllum* Hook. et Wils. II. 374.  
*chlorophyllum* Hsch. II. 261.  
*Chrismari* C. Müll. II. 682.  
*chryseon* Schw. II. 385.  
*chrysocomum* Dicks. I. 487.  
*chrysogaster* C. Müll. II. 295.  
*chrysophylloides* Gumb. II. 436.  
*chrysophyllum* Brid. II. 435.  
*chrysostegum* C. Müll. II. 686.  
*chrysostomum* Rich. II. 368.  
*ciliare* Brid. II. 33.  
*ciliato-serratum* Nees. II. 497.  
*cinninatum* Brot. II. 98.  
*cinninatum* S. Viagg. II. 118.  
*circinale* Hook. II. 318.  
*circinans* Schimp. II. 500.  
*circinnatum* Brid. II. 479.  
*circinnatum* Wils. II. 480.  
*cirrhatum* Weis. II. 586.  
*cirrhiferum* Spr. II. 155.  
*cirrhifolium* Schw. II. 281.  
*cirrhifolium* Schw. II. 138.  
*cirrhosum* Schw. II. 377.  
*Clarionis* Lam. et Dec. II. 447.  
*clavatum* Bellard. II. 474.  
*clavatum* Spr. II. 509.  
*clavellatum* Hdw. II. 346.  
*clavellatum* L. II. 347.  
*clavellatum* Schrk. II. 412.  
*clinocarpum* Tayl. II. 355.  
*cochlearifolium* Schw. II. 373.  
*collinum* Schleich. II. 429.  
*comatum* C. Müll. II. 692.  
*commutatum* Hdw. II. 422.  
*comosum* Hsch. II. 503.  
*comosum* La Bill. II. 503.  
*comosum* Mossm. II. 692.  
*comosum* Vill. II. 435.  
*compactum* C. Müll. II. 408.  
*complanatum* L. II. 43.  
*compositum* Sw. II. 178.

## HYPNUM.

- compressum* Brid. II. 420.  
*compressum* Roth. II. 298.  
*compressum* Schreb. II. 384.  
*compressum* Schultz. II. 289.  
*concarum* Hook. II. 261.  
*conchophyllum* Tayl. II. 250.  
*concinnum* De Not. II. 69.  
*concinnum* Hartm. II. 366.  
*concinnum* Wils. II. 374.  
*confertum* Brid. II. 246. 258.  
*confertum* Dicks. II. 345.  
*Conferva* Schw. II. 414.  
*confervoides* Brid. II. 414.  
*confervoides* Hook. II. 415.  
*congestum* Sw. II. 358.  
*conostegum* C. Müll. II. 242.  
*conostomum* Tayl. II. 364.  
*consanguineum* C. Müll. II. 472.  
*consimile* Hook. et Wils. I. 492.  
*conspissatum* Hook. et Wils. II. 422.  
*conspurcatum* Brid. II. 420.  
*constrictum* C. Müll. II. 316.  
*conterminum* C. Müll. II. 341.  
*contextum* Hdw. II. 412.  
*contextum* Schl. II. 277.  
*contiguum* Nees ab Es. II. 322.  
*contorte-operculatum* C. Müll. II. 682.  
*Cooleyanum* Spr. II. 255.  
*cordatum* Harv. II. 451.  
*cordifolium* Hdw. II. 379.  
*cordifolium* Hook. II. 380.  
*coronopifolium* P. B. II. 33.  
*crassicollum* Tayl. II. 343.  
*crassinervium* Tayl. II. 371.  
*crassiusculum* Brid. II. 405.  
*crassiusculum* H. et Wils. II. 327.  
*crassum* La Tour. II. 376.  
*crassum* Schum. II. 379. 419.  
*crinale* Schl. II. 293.  
*crinitifolium* C. Müll. II. 237.  
*crinitum* H. et Wils. II. 392.  
*crispatum* Hook. II. 140.  
*crispifolium* Hook. II. 450.  
*crispum* L. II. 55.  
*Crista Castrense* L. II. 296.  
*Crista Castrense* Roth. II. 298.  
*crudum* W. et M. I. 333.  
*Cubense* C. Müll. II. 267.  
*cucullifolium* P. B. II. 442.  
*cupressiforme* Bals. et de Not. II. 255.  
*cupressiforme* H. et Wils. II. 295.

## HYPNUM.

- cupressiforme* Hmp. II. 293.  
*cupressiforme* Hook. II. 291. 292.  
 299.  
*cupressiforme* Hsch. II. 311.  
*cupressiforme* L. II. 289.  
*cupressoides* C. Müll. II. 303.  
*cupressoides* C. Müll. II. 304.  
*Curlandicum* Brid. II. 384.  
*curtipendulum* L. II. 116.  
*curvatum* Sw. II. 499.  
*curvicollum* C. Müll. II. 684.  
*curvifolium* Hdw. II. 292.  
*curvifolium* Itzigs. II. 292.  
*curvirostre* C. Müll. II. 408.  
*curvirostrum* Brid. II. 255.  
*curvisetum* Brid. II. 401.  
*curvulum* Hook. II. 310.  
*cuspidatifolium* C. Müll. II. 237.  
*cuspidatum* Hdw. II. 382.  
*cuspidatum* L. II. 383.  
*cuspidatum* Schrank. I. 161.  
*cuspidatum* Turn. II. 379.  
*cuspidatum* Weis. II. 384.  
*cuspidigerum* Schw. II. 14.  
*cylindricarpum* C. Müll. II. 308.  
*cylindricum* Bruch. II. 255.  
*cylindricum* Hsch. et R. II. 317.  
*cymbifolium* Dub. II. 486.  
*cymbifolium* Dz. et Molkb. II.  
 485.  
*cyparissoides* Hsch. II. 304.  
*cyparissoides* Wils. II. 304.  
*cyparoides* Brid. II. 312.  
*cyperoides* Hook. II. 288.  
*dealbatum* Hsch. et A. II. 306.  
*debile* Brid. II. 413.  
*decipiens* Hoffm. II. 289.  
*deflexum* Wils. II. 680.  
*delicatulum* Hdw. II. 484.  
*delicatum* Ehrh. II. 483.  
*demissum* De Not. II. 327.  
*demissum* Sulliv. II. 328.  
*demissum* Wils. II. 327.  
*dendroides* L. II. 122.  
*densifolium* Brid. II. 442.  
*densifolium* Spr. II. 331.  
*densum* C. Müll. II. 335.  
*densum* Sw. II. 160.  
*denticulatum* Hook. II. 253.  
*denticulatum* L. II. 251.  
*deplanatum* Schimp. II. 260.  
*depressum* Bruch. II. 258.  
*depressum* Sw. II. 218.  
*desmiphorum* P. B. II. 476.  
*diaphanum* Sw. II. 199.

## HYPNUM.

- diastrophyllum* Lam. et Dec. II.  
 423.  
*diastrophyllum* Sw. II. 423.  
*Dicksoni* Gmel. II. 57.  
*diffusum* Bland. II. 421.  
*diminutivum* Hmp. II. 270.  
*dimorphum* Brid. II. 490.  
*discriminatum* Mont. II. 452.  
*disparifolium* Tayl. II. 439.  
*distans* Brid. II. 480.  
*distichum* Sw. I. 173.  
*divaricatum* Hsch. et R. II. 505.  
*diversifolium* Schimp. II. 428.  
*diversifolium* Schl. II. 491.  
*divulsum* Hook. et Wils. II.  
 466.  
*Donianum* Sm. II. 252.  
*dorsale* Brid. II. 508.  
*Dozyanum* C. Müll. II. 276.  
*Drégei* C. Müll. II. 311.  
*drepanophyllum* C. Müll. II. 319.  
*Drummondi* Tayl. II. 336.  
*dubium* Brid. II. 420.  
*Dubyanum* C. Müll. II. 241.  
*Duisabonae* C. Müll. II. 309.  
*duplicatum* Schw. II. 58.  
*Durieuvi* Mont. II. 417.  
*duriusculum* Schimp. II. 426.  
*eccremocarpum* C. Müll. II. 495.  
*elasticum* Brid. II. 461.  
*elegans* Ehrh. II. 379.  
*elegans* Hook. II. 260.  
*elegans* Spruce. II. 279.  
*elegantulum* Hook. II. 267.  
*elodes* Spruce. II. 434.  
*elodes* Web. et M. I. 169.  
*elongatum* Hook. et Wils. II.  
 162. 674.  
*erectum* Hook. II. 335.  
*erectum* Radd. II. 460.  
*ericetorum* Brid. II. 141.  
*ericoides* C. Müll. II. 458.  
*erythrodontium* C. Müll. II. 268.  
*erythropodium* Brid. II. 366.  
*Esmeraldicum* C. Müll. II. 392.  
*Estrellae* C. Müll. II. 275.  
*euchloron* Bruch. II. 464.  
*excavatum* Tayl. II. 229.  
*exiguum* Bland. II. 396.  
*exile* Vill. II. 491.  
*expansum* Tayl. II. 224.  
*extenuatum* Brid. II. 391.  
*extricatum* Hoffm. II. 420.  
*Fabronia* Hook. II. 270.  
*fabroniaefolium* C. Müll. II. 271.

## HYPNUM.

- falcatum* Brid. II. 423.  
*falcifolium* Hook. et Wils. II. 230.  
*falciforme* Dz. et Molkb. II. 299.  
*fallax* Brid. II. 421.  
*fasciculatum* Desv. II. 42.  
*fasciculatum* Sw. II. 226.  
*fasciculatum* Lam. II. 359.  
*fastigiatum* Brid. II. 298.  
*fastigiatum* Wieb. II. 290.  
*fertile* Sendtn. II. 293. 685.  
*filamentosum* Bertol. II. 478.  
*filescens* Brid. II. 462.  
*filicinum* L. II. 419.  
*filicinum* Vill. II. 423.  
*filicoides* Gmel. II. 181.  
*filiculaeforme* P. B. II. 5.  
*filidens* C. Müll. II. 268.  
*filifolium* L. II. 337.  
*filiforme* Gmel. II. 169.  
*filiforme* Huds. II. 337.  
*filiforme* Lam. II. 370.  
*filiforme* Timm. II. 90.  
*filiforme* Vill. II. 479.  
*fimbriatum* C. Müll. II. 402.  
*fimbriatum* Hartm. II. 465.  
*fissidentoides* Brid. I. 174.  
*flabellatum* Dicks. II. 225.  
*flaccidifolium* C. Müll. II. 333.  
*flaccidum* Schl. II. 420.  
*flagellare* Dicks. II. 436.  
*flagellare* Vill. II. 509.  
*flagelliforme* Brid. II. 421.  
*flavens* Mich. II. 476.  
*flavescens* Brid. II. 368.  
*flavescens* Roth. II. 361.  
*flavescens* Schl. II. 323.  
*flavo-nitens* C. Müll. II. 315.  
*flexile* Brid. II. 383.  
*flexile* Hook. II. 373.  
*flexile* Sw. II. 129.  
*flexipes* Brid. II. 321.  
*floribundum* C. Müll. II. 265.  
*floridum* Tayl. II. 226.  
*Flotowianum* Sendtn. II. 370.  
*fluitans* L. II. 323.  
*fluviatile* Sw. II. 420.  
*fontanum* Auct. II. 423.  
*fontanum* Schkr. I. 474.  
*fontanum* Schl. II. 379. 399.  
*fontinaloides* Lam. II. 652.  
*Fontium* Brid. II. 426.  
*fragile* Brid. II. 435.  
*fragile* C. Müll. II. 471.  
*Freuchenianum* Hsch. II. 324.

## HYPNUM.

- Freycineti* Schw. I. 168. II. 26.  
*fuciforme* Brid. II. 487.  
*fulgens* Sw. II. 2.  
*Fulgeriense* Lapyt. II. 418.  
*fulvum* Brid. II. 474.  
*fulvum* C. Müll. II. 353.  
*Funkii* Hsch. II. 429.  
*furcatum* Brid. II. 410.  
*fuscescens* Hook. et Arn. II. 341.  
*fuscum* Schl. II. 419.  
*Galipense* C. Müll. II. 331.  
*Gardnerianum* C. Müll. II. 315.  
*Gaudichaudii* Mont. II. 249.  
*Gayanum* Mont. II. 459.  
*Gedeantum* C. Müll. II. 390.  
*geniculatum* Schl. II. 368.  
*giganteum* Brid. II. 130.  
*glabellum* Sw. II. 44.  
*glareosum* Bruch. II. 361.  
*glareosum* Schl. II. 420.  
*glaucescens* Hsch. II. 392.  
*glaucocarpon* Reinw. II. 441.  
*glaucum* Lam. et Dec. II. 423.  
*glaucum* Weis. I. 75.  
*globithea* C. Müll. II. 300.  
*gnaphaleum* P. B. I. 489.  
*gracile* Br. et Sch. II. 488.  
*gracile* H. et Wils. II. 271.  
*gracile* L. II. 98.  
*gracile* Weinm. II. 418.  
*gracilescens* Bland. II. 420.  
*gracilescens* C. Müll. II. 271.  
*gracilescens* P. B. II. 470.  
*gracilicarpum* Bruch. II. 327.  
*gracilisetum* Hsch. et R. II. 312.  
*gracillimum* Hsch. II. 278.  
*graminicolor* Brid. II. 263.  
*gratum* P. B. II. 496.  
*gratum* Schw. et Brid. II. 496.  
*Grayanum* Sulliv. II. 488.  
*Grevillii* Rabenh. II. 480.  
*Grimsulanum* Schimp. II. 449.  
*Guadalupense* Brid. II. 212.  
*Guadalupense* Spr. II. 218.  
*Gueinzii* Hmp. II. 311.  
*gymnopodium* C. Müll. II. 226.  
*Haldanianum* Grev. II. 254.  
*Halleri* H. et Wils. II. 441.  
*Halleri* L. II. 440.  
*hamatum* Dz. et M. II. 272.  
*Hampeanum* C. Müll. II. 326.  
*Haplohymenium* Harv. II. 489.  
*hastatum* C. Müll. II. 485.  
*hastatum* Duby. I. 481.  
*Hedwigii* Lam. et Dec. II. 297.

## HYPNUM.

- Helicodontium* C. Müll. II. 441.  
 688.  
*hermaphroditum* C. Müll. II. 388.  
 688.  
*heteromallum* Gmel. II. 168.  
*heterophyllum* Hoffm. II. 443.  
*heterophyllum* Hüb. II. 383.  
*heterophyllum* Neck. II. 424.  
*heterophyllum* Poir. II. 58.  
*heteropterum* Spruce. II. 437.  
*hexastichum* Schw. II. 126.  
*hians* Hdw. II. 447.  
*Hildenbrandii* Garov. II. 462.  
*hirtellum* C. Müll. II. 468.  
*hispidulum* Brid. II. 440.  
*hispidum* Hook. et Wils. II. 421.  
*Hochstetteri* Schimp. II. 376.  
*homomallum* Bert. II. 290.  
*homomallum* C. Müll. II. 336.  
*hookerioides* C. Müll. II. 342.  
*Hornschuchii* Hmp. II. 406.  
*hornum* Web. et M. I. 165.  
*hornum* Web. II. 321.  
*Huitomalconum* C. Müll. II. 248.  
*humile* Harv. II. 329.  
*humile* Mont. II. 330.  
*humile* P. P. II. 413.  
*hyalinum* Reinw. II. 390.  
*hygrophilum* Brid. II. 351.  
*ichnotocladum* C. Müll. II. 301.  
*illecebrum* Brid. II. 375. 379.  
*illecebrum* Hdw. II. 375.  
*illecebrum* L. II. 376. 687.  
*illecebrum* Schultz. II. 381.  
*imbricatulum* P. B. II. 476.  
*implexum* Brid. II. 479.  
*implexum* Kze. II. 445.  
*implexum* Turn. II. 366.  
*imponens* Hdw. II. 291.  
*implicatum* Hsch. II. 362.  
*inconspicuum* Hsch. II. 332.  
*incubans* Hsch. et R. II. 306.  
*incurvatum* P. B. II. 479.  
*incurvatum* Schrad. II. 416.  
*Indicum* C. Müll. II. 232.  
*inermis* Schrk. II. 384.  
*inextricatum* Brid. II. 509.  
*inflectens* C. Müll. II. 239.  
*inflexum* Harv. II. 430.  
*inordinatum* Brid. II. 412.  
*instratum* Brid. II. 265.  
*intermedium* W. et M. I. 269. 278.  
*interruptum* Brid. II. 460.  
*intertextum* Brid. II. 347.  
*intertextum* Mühlenb. II. 488.

## HYPNUM.

- intertextum* Voit. II. 347. 412.  
*intorquatum* Dz. et Molkb. II.  
 300.  
*intorto-plicatum* Lobarz. II.  
 296.  
*intortum* P. B. II. 398.  
*intricatum* C. Müll. II. 338.  
*intricatum* Schreb. II. 400.  
*intricatum* Will. II. 509.  
*inundatum* Brid. II. 426.  
*inundatum* Dicks. II. 469.  
*involvens* P. B. II. 495.  
*irroratum* C. Müll. II. 395.  
*Jacquemonti* Br. et Sch. II. 489.  
*Jacquini* Garov. II. 481.  
*Jamaicense* Gmel. II. 147.  
*Jamesoni* Tayl. II. 454.  
*Javanicum* Bel. II. 247.  
*julaceum* L. II. 92.  
*julaceum* Vill. 465.  
*Juliani* Brid. II. 509.  
*jungermannioides* Brid. II. 414.  
*Junghuhnii* C. Müll. II. 506. 693.  
*Kamounense* Harv. II. 365.  
*Kegelianum* C. Müll. II. 325.  
*Kneiffianum* Schimp. II. 321.  
*Korthalsii* Dz. et Molkb. II. 497.  
*Krakakammae* C. Müll. II. 285.  
*lacunosum* Wieb. II. 289.  
*lacustre* W. et M. I. 268.  
*laete-virens* Sm. II. 346.  
*laetum* Brid. II. 357.  
*laetum* Sendtn. II. 357.  
*laevisetum* Crome II. 351.  
*lamprocarpum* C. Müll. II. 359.  
*lanatum* Sterm. II. 421.  
*lanceifolium* C. Müll. II. 497.  
*lanceolatum* Hmp. et Müll. II.  
 411.  
*Langsdorfii* Hook. II. 259.  
*laricinum* Hook. II. 7. 8.  
*laricinum* Wils. II. 455.  
*latifolium* Tayl. II. 288.  
*Laureri* Funk. II. 401.  
*laxifolium* Brid. II. 321.  
*laxifolium* Schw. II. 449.  
*laxo-pinnatum* Brid. II. 401.  
*laxum* P. B. II. 510.  
*leptocarpon* Schw. II. 316.  
*leptochaeton* Schw. II. 286.  
*leptochaeton* Wils. II. 331.  
*leptocladum* C. Müll. II. 495.  
*leptomerocarpum* C. Müll. II.  
 354.  
*leptopoma* Schw. II. 215.

## HYPNUM.

- leptorrhynchum* Brid. II. 313.  
*leptorrhynchum* H. et Wils. II. 315.  
*lepturum* Tayl. II. 454.  
*Leskea* Grev. II. 480.  
*leskeoides* Brid. II. 416.  
*leucocytus* C. Müll. II. 314.  
*leucophyllum* Hmp. II. 280.  
*leucostegum* C. Müll. II. 344.  
*leucotrichum* Tayl. II. 319.  
*ligulatum* Web. et M. I. 161.  
*Lindenbergii* Hmp. II. 261.  
*lithophilum* H. et Wils. II. 343.  
*lithophilum* Hsch. II. 332. 333.  
*litoreum* De Not. II. 399.  
*livens* Schw. II. 128.  
*longicollum* W. et M. I. 336.  
*longifolium* C. Müll. II. 474. 690.  
*longifolium* Schultz. II. 321.  
*longirostratum* C. Müll. II. 393.  
*longirostrum* Brid. II. 462.  
*longirostrum* Ehrh. II. 461.  
*longisetum* Brid. II. 508.  
*longisetum* Schl. II. 323.  
*longissimum* Radd. II. 130.  
*loreum* L. II. 442.  
*Loxense* Hook. II. 331.  
*lucens* L. II. 202.  
*lucidulum* Hook. et Wils. II. 349.  
*lucidum* Hook. et Wils. II. 259.  
*Ludwigii* Brid. II. 448.  
*Ludwigii* Spr. II. 346.  
*luridum* Sw. II. 421. 424.  
*luteolum* C. Müll. II. 357.  
*lutescens* Hook. II. 361.  
*lutescens* Huds. II. 370.  
*luxurians* Dub. II. 407.  
*luxurians* Dz. et Molkb. II. 388.  
*lycopodioides* Menz. II. 442.  
*lycopodioides* Schw. II. 423.  
*macrocarpon* Hsch. II. 438.  
*macrodontium* Hsch. II. 276.  
*macrorrhynchum* Hsch. II. 329.  
*macrotheca* C. Müll. II. 224.  
*Magellanicum* P. B. II. 27.  
*malacobolum* C. Müll. II. 690.  
*mammillatum* Fk. II. 299.  
*mammosum* C. Müll. II. 684.  
*marginatum* Hook. et Wils. II. 508.  
*marginatum* Web. et M. I. 164.  
*maritimum* C. Müll. II. 328.  
*Martianum* Sendtn. II. 492.  
*Marylandicum* C. Müll. II. 328.

## HYPNUM.

- Mascarenicum* C. Müll. II. 485.  
*Mauritianum* Bél. II. 407.  
*Mediterraneum* Sendtn. II. 480.  
*medium* Dicks. II. 469.  
*Megapolitanum* Blandow. II. 353.  
*Megapolitanum* Hsch. II. 354.  
*melanocarpum* C. Müll. II. 433.  
*Menziesii* Hook. II. 506. 692.  
*Meridense* C. Müll. II. 433.  
*Meridionale* Schimp. II. 462.  
*Mertensii* Weinm. II. 439.  
*Meyenianum* Hmp. II. 233.  
*Meyenianum* Hmp. II. 486.  
*micans* A. Br. II. 685.  
*micans* H. et Wils. II. 271.  
*micans* Hook. II. 290.  
*microcarpum* C. Müll. II. 326.  
*microcarpum* Dub. II. 334.  
*microcarpum* Hdw. II. 21.  
*microcarpum* Hook. II. 404.  
*microcarpum* Hsch. II. 406.  
*microcladon* Tayl. II. 392.  
*mirocladum* Dz. et Molkb. II. 274.  
*microcranthum* P. B. II. 21.  
*microdendron* C. Müll. II. 231.  
*microphyllum* Mühlenb. II. 488.  
*microphyllum* Sw. II. 491.  
*micropodon* Brid. II. 117.  
*microstegum* C. Müll. II. 345.  
*microtheca* C. Müll. II. 393.  
*minimum* P. B. II. 327.  
*minutirameum* C. Müll. II. 689.  
*minutulum* Hdw. II. 492.  
*minutulum* Hsch. II. 494.  
*muroides* Hook. I. 176.  
*Molkenboerianum* C. Müll. II. 317. 685.  
*molle* Dicks. II. 431.  
*molluscum* Hdw. II. 297.  
*moniliforme* Wahlenb. II. 466.  
*Montagnei* C. Müll. II. 231.  
*montanum* Lam. II. 116.  
*monumentorum* Dub. II. 301.  
*Moretii* Garov. II. 364.  
*Moritzii* C. Müll. II. 303.  
*Moritzii* Dub. II. 13.  
*Mosquitense* Brid. II. 499.  
*Mougeotianum* A. Rich. II. 13.  
*mucronatum* C. Müll. II. 262.  
*mucronatum* P. B. II. 12.  
*Mühlenbeckii* Br. et Sch. II. 282.  
*Mühlenbergense* P. B. II. 435.  
*Mühlenbergii* P. B. II. 66.

## HYPNUM.

- multiflorum* P. B. II. 469.  
*multiflorum* Schw. II. 320.  
*multiflorum* Tayl. II. 337.  
*murale* Neck. II. 346.  
*muricatulum* C. Müll. II. 493.  
*muricatulum* Hmp. II. 493.  
*muricolum* C. Müll. II. 492.  
*mutabile* Brid. II. 82.  
*muticum* Sw. II. 384.  
*myosuroides* Hdw. II. 499.  
*myosuroides* L. II. 499.  
*myosuron* Gmel. II. 499.  
*myosurum* Schrad. II. 499.  
*myurum* Poll. II. 498.  
*nanum* Vill. II. 509.  
*naviculare* Brid. II. 2.  
*Neckera* Schw. II. 503.  
*neckeraceum* C. Müll. II. 318.  
*neckeroides* Hook. II. 502.  
*neckeroides* Sulliv. II. 502.  
*Neei* Mohr. II. 445.  
*Neelgheriense* C. Müll. II. 462.  
*neglectum* Brid. II. 347.  
*nemorosum* Koch. II. 255.  
*Nepalense* Schw. II. 266.  
*nerrosum* C. Müll. II. 470. 690.  
*nervosum* Hook. II. 481.  
*nigrescens* Sw. II. 135.  
*nigricans* Hmp. II. 129.  
*nigricans* Hook. II. 133.  
*nigricans* Vill. II. 653.  
*nigricaula* Brid. II. 286.  
*nigro-viride* Turn. II. 290.  
*nigrum* Banks. II. 442.  
*nitens* Schreb. II. 381.  
*nitens* Timm. II. 290.  
*nitidulum* Wahlenb. II. 277.  
*nitidum* C. Müll. II. 382.  
*nudicaule* Schw. II. 95.  
*nutans* Nees ab Es. II. 240.  
*nutans* W. et M. I. 335.  
*Oakesii* Sulliv. II. 461.  
*obliquifolium* C. Müll. II. 331.  
*obscurum* Brid. II. 401.  
*obscurum* P. B. II. 470.  
*obtusatum* Wahlenb. II. 252.  
*obtusifolium* Brid. II. 252.  
*obtusifolium* Dicks. II. 426.  
*obtusifolium* Hook. II. 432.  
*obtusum* Vill. II. 378. 509.  
*ochron* Schw. II. 306.  
*odontocalyx* C. Müll. II. 232.  
*oedistegum* C. Müll. II. 350.  
*Olfersii* Hsch. II. 287.  
*oligophyllum* Brid. II. 321.

## HYPNUM.

- Oreganum* Sulliv. II. 450.  
*ornithopodioides* Fl. Dan. II. 499.  
*ornithopodioides* Huds. II. 98.  
*ornithopodioides* Scop. II. 43.  
*orthocarpon* Ångstr. II. 253.  
*orthocarpon* La Pyl. II. 69.  
*orthocarpon* Nees. II. 506.  
*orthocarpum* Hsch. II. 253.  
*orthocladon* P. B. II. 412.  
*orthothecium* Schw. II. 338.  
*oxycladon* Brid. II. 360.  
*oxypoma* Schw. II. 453.  
*oxyrrhynchum* Dz. et Molkb. II. 451.  
*pachypoma* Schw. II. 413.  
*palatinum* Neck. II. 98.  
*pallens* W. et M. I. 257.  
*pallescens* Arn. II. 269.  
*pallescens* P. B. II. 339.  
*pallescens* Vill. II. 509.  
*pallidirostrum* Brid. II. 413.  
*pallidisetum* Brid. II. 331.  
*pallidum* Brid. II. 190.  
*pallidum* Hook. II. 269.  
*pallidum* Starck. II. 321.  
*palmatum* Sw. I. 48.  
*Paludella* Web. et Mohr. I. 468.  
*paludosum* Arn. II. 469.  
*paludosum* Sulliv. II. 455.  
*palustre* Hoffm. II. 469.  
*palustre* L. II. 424.  
*palustre* Vill. II. 321.  
*papillatum* Harv. II. 273.  
*papillosum* Hsch. II. 272.  
*paradoxum* Hook. et W. II. 324.  
*paradoxum* Mont. II. 69.  
*parietinum* L. II. 384. 457.  
*parietinum* Murr. II. 483.  
*parvifolium* C. Müll. II. 233.  
*parvulum* C. Müll. 409.  
*patens* Hook. II. 155.  
*Patrisiae* Brid. II. 198.  
*patulum* C. Müll. II. 156.  
*patulum* Sw. II. 155.  
*pauperum* C. Müll. II. 493.  
*pelitnochroon* Lobarz. II. 291.  
*pellucidum* Dz. et M. II. 247.  
*pendulum* C. Müll. II. 467.  
*pendulum* P. B. II. 132.  
*pennaeforme* Thunb. II. 11.  
*pennatum* Gmel. II. 50.  
*pentastichum* Arn. II. 128.  
*Peruvianum* Mont. II. 244.  
*petrophilum* Weinm. II. 402.  
*Philippianum* C. Müll. II. 356.

## HYPNUM.

- phleoides* Desv. II. 132.  
*phryxophyllum* Arn. II. 386.  
*Phyllogonium* C. Müll. II. 262.  
*phyllorrhizans* P. B. II. 379.  
*piliferum* Brid. II. 370.  
*piliferum* Schreb. II. 369.  
*pilosum* Weis. I. 807.  
*piniforme* C. Müll. II. 228.  
*pinnatum* Lam. II. 457.  
*planifolium* Brid. II. 259.  
*planum* Brid. II. 264.  
*planum* Schw. II. 265.  
*plicatum* Schleich. II. 363.  
*plumaeforme* Wils. II. 297.  
*plumosum* Auct. II. 351.  
*plumosum* L. II. 358.  
*plumosum* Sw. II. 416.  
*Plumularia* C. Müll. II. 684.  
*plumulosum* Dz. et Molkb. II. 486.  
*Pöppigianum* Hmp. II. 235.  
*politum* Hook. et Wils. II. 263.  
*polyanthos* Brid. II. 508.  
*polyanthum* Schreb. II. 337.  
*polycarpon* Bland. II. 420.  
*polycarpum* Hoffm. II. 469. 690.  
*polycephalum* Neck. II. 168.  
*polymorphum* Hdw. II. 436.  
*polypodioides* Sw. I. 52.  
*polyrrhizon* Brid. II. 351.  
*polysetum* Blandow. II. 366.  
*polytrichoides* Hdw. II. 206.  
*populeum* Hdw. II. 366.  
*populeum* Hook. II. 449.  
*Porotrichum* C. Müll. II. 223.  
*porrigens* Wils. II. 488.  
*Portoricense* Balb. II. 410.  
*praecox* Sw. II. 428.  
*praelongum* Brid. II. 413. 448. 462.  
*praelongum* L. II. 446.  
*praelongum* Sulliv. II. 430.  
*pratense* Koch. II. 293.  
*prionophyllum* C. Müll. II. 481.  
*procerum* C. Müll. II. 389.  
*proliferum* L. II. 457. 483.  
*proliferum* Wahlenb. II. 458.  
*prolixum* Dicks. II. 426.  
*prolixum* Vill. II. 420.  
*propinquum* Harv. II. 309.  
*prostratum* Dz. et Molkb. II. 271.  
*protensum* Brid. II. 435.  
*protensum* Rich. II. 483.  
*protuberans* Brid. II. 291.  
*pseudo-amoenum* Bél. II. 266.

## HYPNUM,

- pseudo-commutatum* Lapyt. II. 437.  
*pseudo-delicatulum* Radd. II. 448.  
*pseudoplumosum* Brid. II. 350.  
*pseudoplumosum* Mont. II. 350.  
*pseudo-protensum* C. Müll. II. 484.  
*pterogonoides* C. Müll. II. 349.  
*ptychocarpon* Schw. II. 459.  
*pulchellum* Br. et Sch. II. 282.  
*pulchellum* Dicks. II. 277.  
*pulchellum* Fk. II. 394.  
*pulchellum* Hdw. II. 428.  
*pulchrum* Hook. II. 255.  
*pulvinatum* Hook. et Wils. II. 500.  
*pumilum* Gmel. II. 57.  
*pumilum* Wils. II. 413.  
*punctatum* Schrank. I. 156.  
*punctulatum* De Not. II. 488.  
*punctulatum* Harv. II. 266.  
*pungens* Hdw. II. 387.  
*purum* Ehrh. II. 384.  
*purum* L. II. 379.  
*pusillum* Hsch. II. 405.  
*pycnophyllum* C. Müll. II. 406.  
*pygmaeum* C. Müll. II. 288.  
*pygmaeum* Vill. II. 509.  
*Pyrenaicum* Spruce II. 456.  
*pyriforme* W. et M. I. 330.  
*pyrrhophyllum* C. Müll. II. 344.  
*quadrangulare* Schw. II. 123.  
*Raddianum* Brid. II. 510.  
*radiatum* Schw. II. 250.  
*radicabundum* Brid. II. 421.  
*radicale* Hsch. II. 247.  
*radicale* P. B. II. 412.  
*radicans* Brid. II. 281.  
*radicans* Lapyt. II. 135.  
*radiculosum* C. Müll. II. 231.  
*ramosissimum* Brid. II. 499.  
*ramulosum* Hmp. II. 486.  
*raphidorrhynchum* C. Müll. II. 354.  
*raphidostegum* C. Müll. II. 494.  
*recognitum* Hdw. II. 483.  
*recognitum* Hmp. II. 486.  
*recurvans* Cool. II. 291.  
*recurvans* Schw. II. 307.  
*recurvans* Sulliv. II. 308.  
*reflexum* Starck. II. 448.  
*Regnellii* Hmp. II. 447.  
*regulare* C. Müll. II. 307.  
*Reichenbachianum* Hüb. II. 370.  
*Reinwardti* Hsch. II. 505.

## HYPNUM.

- remotifolium* Grev. II. 490  
*repens* Poll. II. 412.  
*reptans* Brid. II. 269.  
*reptans* Hsch. II. 270.  
*reptans* Sw. II. 268.  
*reptile* Rich. II. 290.  
*resupinatum* Tayl. II. 337.  
*reticulatum* Dub. II. 241.  
*reticulatum* Dz. et Molkb. II. 236.  
*reticulatum* Hook. et W. I. 174. II. 554.  
*retroflexum* Hook. II. 287.  
*revolvens* Sw. II. 323.  
*rhizobolium* Nees. II. 671.  
*Richardi* Schw. II. 285.  
*rigidiusculum* Bland. II. 448.  
*rigidulum* Bruch. II. 399.  
*rigidum* Hsch. et Reinw. II. 498.  
*rigidum* Schw. II. 222.  
*riparioides* Hdw. II. 426.  
*riparium* L. II. 321.  
*rivulare* Brid. II. 361.  
*rivulare* Bruch. II. 368.  
*rivulare* Ehrh. II. 426.  
*robustum* Hook. II. 256.  
*roseum* Web. et M. I. 247.  
*rostratum* P. B. II. 475, 690.  
*rostratum* Web. et M. I. 158.  
*rotulatum* P. B. II. 10.  
*rotundifolium* Abb. II. 426.  
*rotundifolium* Brid. II. 245.  
*rotundifolium* II. 346.  
*rubricaulis* Brid. II. 508.  
*rubrum* Vill. II. 420.  
*runderale* Brid. II. 352.  
*runderale* Brid. II. 347.  
*rufescens* Licks. II. 384.  
*Rugelii* C. Müll. II. 473.  
*rugosum* Ehrh. II. 423.  
*rugosum* Web. et M. II. 423.  
*rugulosum* Web. et M. II. 424.  
*rupestre* Schl. II. 431.  
*rupincolum* P. B. II. 335.  
*rurale* Weis. I. 640.  
*ruscifolium* Neck. II. 426.  
*rusciforme* Weis. II. 425.  
*rutabuloides* Brid. II. 401.  
*rutabulum* Brid. II. 368. 401.  
*rutabulum* H. et Wils. II. 363.  
*rutabulum* Hook. II. 368.  
*rutabulum* L. II. 367.  
*rutabulum* Web. II. 461.  
*Ruthenicum* Weinm. II. 503.  
*rutilans* C. Müll. II. 234.

## HYPNUM.

- sabinaefolium* Brid. II. 476.  
*sagittaefolium* Voit. II. 444.  
*Saladinianum* Neck. II. 117.  
*salebrosum* H. et T. II. 361.  
*salebrosum* Hoffm. II. 359.  
*Saltzmanianum* Hmp. II. 480.  
*Sandwicense* Hook. et Arn. II. 319.  
*saproxylophilum* C. Müll. II. 334.  
*sarmentosum* Wahlenb. II. 380.  
*Sauteri* Schimp. II. 685.  
*saxatile* Brid. II. 351.  
*saxatile* Hook. et Wils. II. 345.  
*saxicola* Voit. II. 366.  
*scaberulum* Mont. II. 272.  
*scabrifolium* Hook. et Wils. II. 487.  
*scabrisetum* Schw. II. 250.  
*scabrum* Koch. II. 447.  
*scalare* A. Br. II. 688.  
*scalare* Zk. et Dietr. II. 297.  
*scariosum* Tayl. II. 467.  
*scaturiginum* Brid. II. 236.  
*Schiedeanum* C. Müll. II. 494.  
*Schimperi* Bruch. II. 327.  
*schistocalyx* C. Müll. II. 691.  
*Schlagintweitii* Sendtn. II. 395.  
*Schleicheri* Brid. II. 401.  
*Schleicheri* Hdw. II. 447.  
*Schlimii* C. Müll. II. 310.  
*Schlosseri* Sendtn. II. 451.  
*Schreberi* Brid. II. 69.  
*Schreberi* Willd. II. 384.  
*scitum* P. B. II. 488.  
*sciuroides* L. II. 108.  
*Sclerodontium* C. Müll. II. 476.  
*scorpioides* L. II. 418.  
*scorpioides* Schultz. II. 423.  
*Scorpiurus* Mont. II. 314.  
*secundifolium* C. Müll. II. 343.  
*secundum* Mont. II. 427.  
*Seligeri* Brid. II. 421.  
*Seligeri* C. Müll. II. 259.  
*Seligeri* Sw. II. 282.  
*Sellowii* C. Müll. II. 249.  
*Sellowii* Hsch. II. 248.  
*seminerve* C. Müll. II. 244.  
*Sendtnerianum* C. Müll. II. 394.  
*senodictyon* C. Müll. II. 247.  
*sepultum* Vill. II. 509.  
*sericeum* Fk. II. 400.  
*sericeum* L. II. 356.  
*serpens* Hook. II. 409.  
*serpens* Hook. II. 411.



## HYPNUM.

- serratum* P. B. II. 453.  
*serrulatum* Brid. II. 428.  
*serrulatum* Hdw. II. 246.  
*serrulatum* Hsch. II. 248.  
*serrulatum* Turn. II. 346.  
*setaceum* Weis. I. 615.  
*setosum* P. B. II. 335.  
*Sibiricum* C. Müll. II. 418.  
*Sieberi* C. Müll. II. 504.  
*sigmatodontium* C. Müll. II. 687.  
*Silesiacum* auct. II. 259.  
*Silesianum* Hook. II. 282.  
*Silesianum* P. B. II. 259.  
*simplex* Brid. II. 283.  
*simplicissimum* Brid. II. 283.  
*Sipho* P. B. II. 321.  
*Smithii* Dicks. II. 118.  
*solitarium* Brid. II. 163.  
*solutum* Tayl. II. 446.  
*Sommerfeltii* Myr. II. 436.  
*spathulaefolium* C. Müll. II. 231.  
*sphaerocarpon* Spr. II. 425.  
*sphaerocarpum* C. Müll. II. 238.  
*sphaerotheca* C. Müll. II. 333.  
*spiniforme* H. et Wils. II. 556.  
*spiniforme* L. I. 175.  
*spininervium* Hook. II. 507, 693.  
*spinosum* Sibth. II. 499.  
*spinulosum* Hdw. II. 412.  
*spirale* C. Müll. II. 273.  
*splendens* Hdw. II. 457.  
*splendidulum* Hsch. II. 283.  
*Sprucei* Bruch. II. 415.  
*squamosum* Neck. II. 149.  
*squarrosulum* Brid. II. 435.  
*squarrosulum* Voit. II. 491.  
*squarrosulum* L. II. 443.  
*squarrosulum* Timm. II. 419.  
*Starckii* Brid. II. 432.  
*stellare* Web. et M. I. 166.  
*stellatum* Schreb. II. 435.  
*stissophyllum* Hmp. II. 273.  
*Stokesii* Turn. II. 448.  
*stoloniferum* Hook. II. 500.  
*stoloniferum* P. B. II. 474.  
*stramineum* Dicks. II. 378.  
*stramineum* Schw. II. 381.  
*strepsiphyllum* Mont. II. 389.  
*striatellum* C. Müll. II. 282.  
*striatulum* Spruce. II. 462.  
*striatum* Mont. II. 462.  
*striatum* Schreb. II. 460.  
*strigosum* Brid. II. 462, 480.  
*strigosum* Hoffm. II. 428.

## HYPNUM.

- strigosum* Neck. II. 337.  
*strumosum* C. Müll. II. 238.  
*Struthiopteris* Schw. II. 4.  
*subbasilare* Hook. I. 174.  
*subcapillatum* C. Müll. II. 352.  
*subclavatum* Hmp. II. 247.  
*subcompressum* C. Müll. II. 253.  
*subdenticulatum* C. Müll. II. 242.  
*subflavum* H. et Wils. II. 345.  
*subhumile* C. Müll. II. 330.  
*subpilosum* Hook. et Wils. II. 366.  
*subplicatum* Hmp. II. 363.  
*subrectifolium* Brid. II. 298.  
*subrectifolium* Sulliv. II. 256.  
*subscabrum* C. Müll. II. 314.  
*subsecundum* Arn. II. 331.  
*subserratum* C. Müll. II. 228.  
*subsimplex* Hdw. II. 283.  
*subsimplex* H. et Wils. II. 278.  
*subsimplex* Sulliv. II. 281.  
*subsphaericarpon* Schl. II. 425.  
*subtile* Hoffm. II. 415.  
*subulatum* Hmp. II. 402.  
*succedaneum* Hook. et Wils. II. 341.  
*Sullivanii* Spruce. II. 430.  
*superbum* C. Müll. II. 225.  
*Swartzii* Brid. II. 416.  
*Swartzii* Turn. II. 447.  
*sylvaticum* L. II. 252.  
*tamarisci* Sw. II. 7, 8.  
*tamariscifolium* Neck. II. 483.  
*tamariscinum* Brid. II. 484, 485.  
*tamariscinum* Hdw. II. 483.  
*tanytrichum* Dub. II. 390.  
*tanytrichum* Mont. II. 391.  
*Tavoyense* Hook. II. 245.  
*taxifolium* L. I. 50.  
*taxiforme* Brid. II. 281.  
*Teesdalii* Sm. II. 400.  
*tenax* Hdw. II. 412.  
*tenax* Hook. II. 449.  
*tenellum* Dicks. II. 396.  
*Teneriffae* Mont. II. 401.  
*tenerum* Sw. II. 397.  
*tenue* C. Müll. II. 452.  
*tenue* Schrad. II. 412.  
*tenuicaule* Spruce. II. 416.  
*tenuifolium* Hdw. II. 348.  
*tenuirostre* C. Müll. II. 411, H.  
*Helicodontium* describendum est.  
*tenuirostre* Hook. II. 343.  
*tenuissimum* Vill. II. 509.

## HYPNUM.

- tenuius* Vill. II. 500.  
*Ternströmiæ* Brid. II. 139.  
*Terræ Novæ* Brid. II. 292.  
*Terræ Novæ* H. et Wils. II. 302.  
*terrestre* Aubl. II. 124.  
*tetragonum* Sw. II. 126.  
*thelipodium* C. Müll. II. 275. *H. pungens* est.  
*thelistegum* C. Müll. II. 269.  
*Thieleanum* C. Müll. II. 227.  
*Thomasii* Brid. II. 359.  
*Thouini* Schw. II. 5.  
*Thunbergii* Brid. II. 129.  
*Thuringicum* Brid. II. 428.  
*Thuringicum* W. et M. II. 346.  
*Timmii* Brid. II. 298.  
*tomentosum* Hdw. II. 12.  
*torquatum* Hdw. I. 759.  
*tortuosum* Web. I. 601.  
*Touretii* Brid. II. 376.  
*Tovariense* C. Müll. II. 331.  
*toxarion* Schw. II. 446.  
*toxarion* Wils. II. 446.  
*trachypodium* C. Müll. II. 367.  
*trichodes* Brid. II. 420.  
*trichomanoides* Schreb. II. 229.  
*trichomitrium* Hmp. II. 268.  
*trichophorum* Spruce. II. 252.  
*trichophyllum* Sw. II. 111.  
*trichopodium* Schultz. II. 321.  
*trifarium* Rabenh. II. 380.  
*trifarium* Web. et Mohr. II. 381.  
*Trinitense* C. Müll. II. 284.  
*triquetrum* L. II. 444.  
*triquetrum* W. et M. II. 460.  
*trismegistum* Mont. II. 497.  
*triste* C. Müll. II. 478.  
*truncatulum* C. Müll. II. 263.  
*tumidiusculum* Lam. II. 375. 499. 508.  
*turbinatum* W. et M. I. 259.  
*turgidum* Dz. et Molkb. II. 390.  
*turgidum* Hartm. II. 377.  
*ulicon* L. II. 444.  
*uliginosum* Schl. II. 381.  
*umbratum* Ehrh. II. 457.  
*uncinatum* Hdw. II. 322.  
*undatum* P. B. II. 209.  
*undatum* Schrank. II. 258.  
*undulatum* L. II. 257.  
*undulatum* Schrank. I. 161.  
*unguiculatum* La Taur. II. 461.  
*urceolatum* Hsch. II. 240.  
*vagans* Harv. II. 249.  
*vagans* Hook. II. 368.

## HYPNUM.

- vagum* Hsch. II. 466.  
*Vaillantii* Thuill. II. 376.  
*Vallis Clausæ* Brid. II. 421.  
*varium* H. et Wils. II. 488.  
*Vaucheri* Lesq. II. 372.  
*velutinoides* Bruch. II. 370.  
*velutinoides* Voit. II. 428.  
*velutinum* Dub. II. 434.  
*velutinum* L. II. 399.  
*venustum* Dub. II. 303.  
*venustum* De Not. II. 397.  
*venustum* Hsch. et R. II. 441.  
*verrucosum* Dz. et M. II. 276.  
*verrucosum* Hmp. II. 237.  
*versicolor* Hsch. II. 494.  
*vesiculosum* Brid. II. 191.  
*vesiculare* Schw. II. 235.  
*viride* Lam. II. 366.  
*viride* Lam. et Dec. II. 412.  
*viridulum* Brid. II. 307.  
*viridulum* Brid. II. 352.  
*viridulum* Hartm. II. 417.  
*vitellinum* Brid. II. 423.  
*viticulosum* L. II. 472. 690.  
*viviparum* Neck. II. 499.  
*Vriesii* Dz. et M. II. 306.  
*Wahlenbergii* W. et M. I. 295.  
*Wallichii* Brid. II. 142.  
*Wallichii* Hook. II. 464.  
*Webbianum* C. Müll. II. 230.  
*Weinmanni* Nees ab Es. II. 365.  
*Wissgrillii* Garov. II. 408.  
*xerampelinum* Vill. II. 508.  
*Zierii* W. et M. I. 288.  
*Zippelii* Dz. et Molkb. II. 480.  
*Zollingeri* C. Müll. II. 241.  
 HYPOPTERYGIACEÆ Trib. II. 3. 659.  
 HYPOPTERYGIUM Brid. II. 3. 659.  
*Arbuscula* Brid. II. 5.  
*arcuatum* C. Müll. II. 13.  
*ciliatum* Brid. II. 6.  
*commutatum* C. Müll. II. 6. 659.  
*concinnum* Brid. II. 6.  
*convolutaceum* C. Müll. II. 13.  
*didictyon* C. Müll. II. 9.  
*filiculaeforme* Brid. II. 5. 659.  
*flavescens* Hmp. II. 659.  
*flavo-limbatum* C. Müll. II. 10.  
*incrassato-limbatum* C. Müll. II. 8.  
*laricinum* Brid. II. 7.  
*laricinum* Hook. et Wils. II. 9.  
*lutescens* Hsch. II. 11.  
*nivale* C. Müll. II. 9. 659.  
*pennaeforme* Hsch. II. 10.

**HYPOPTERYGIUM.**

- rotulatum* Brid. II. 9.  
*scutellatum* C. Müll. II. 7.  
*setosum* Wils. II. 659.  
*speciosum* C. Müll. II. 5.  
*spectabile* C. Müll. II. 12.  
*Struthiopteris* Brid. II. 4. †  
*tamarisci* Brid. II. 8.  
*tamariscinum* C. Müll. II. 9.  
*Thouini* Mont. II. 4.  
*tomentosum* C. Müll. II. 12.

**ISOTHECIUM** Brid.

- alopecurum* Spruce. II. 502.  
*amoenum* Brid. II. 316.  
*Andrieuxii* Mont. II. 349.  
*apiculatum* Hüb. II. 466.  
*Arbuscula* Brid. II. 229.  
*aureum* Spruce. II. 371.  
*Beyrichii* Mont. II. 60.  
*bifarium* Brid. I. 173.  
*bryiforme* Brid. II. 335.  
*Buchanani* Brid. II. 670.  
*circinans* Saut. II. 500.  
*comosum* Brid. II. 504.  
*crassiusculum* Brid. II. 405.  
*crispifolium* Brid. II. 450.  
*chryseum* Spruce. II. 386.  
*elegans* Brid. II. 260.  
*flexile* Brid. II. 129. 373.  
*hexastichum* Brid. II. 126.  
*imbricatum* Brid. II. 127.  
*insidiosum* Mont. II. 69.  
*intermedium* Thiele. II. 228.  
*intortum* Brid. II. 398.  
*julaceum* Brid. II. 466.  
*laxifolium* Brid. II. 450.  
*leptochaeton* Brid. II. 287.  
*livens* Brid. II. 128.  
*lutescens* Spruce. II. 371.  
*Menziesii* Brid. II. 506.  
*myosuroides* Brid. II. 499.  
*myurum* Brid. II. 499.  
*neckeroides* Brid. II. 503.  
*Neelgheriense* Mont. II. 463.  
*nigricans* Brid. II. 133.  
*orthocarpum* Brid. II. 253.  
*pallidum* Brid. II. 269.  
*patens* Brid. II. 155.  
*pendulum* Brid. II. 467.  
*pentastichum* Brid. II. 128.  
*pentastichum* C. Müll. II. 124.  
*Philippianum* Spruce. II. 357.  
*radiatum* Brid. II. 250.  
*radicans* Brid. II. 135.  
*repens* Spruce. II. 87.

**ISOTHECIUM.**

- Richardi* Brid. II. 285.  
*rufescens* Hüb. II. 385. 386.  
*Schleicheri* Schimp. II. 70.  
*sericeum* Spruce. II. 356.  
*stoloniferum* Brid. II. 500.  
*striatum* Spruce. II. 82.  
*subsimplex* Brid. II. 283.  
*tenerum* Brid. II. 397.  
*tenuifolium* Brid. II. 348.  
*tetragonum* Brid. II. 126.  
*tetragonum* Mont. II. 130.  
*tetrastichum* Brid. II. 123.  
*Thunbergii* Brid. II. 128.  
*trachypodium* Brid. II. 367.  
*trichophorum* Mont. II. 130.  
**ISOTHECIUM** Subsect. II. 356. 687.

**KLEIOWEISIA** Bayrh.

- rostellata* ej. II. 520.

**KOELREUTERA** Hdw.

- hygrometrica* ej. I. 107.

**LASIA** Brid.

- acicularis* Spr. I. 745.  
*marginata* Brid. II. 476.  
*orthotrichoides* Raddi. I. 720. II. 223.  
*Smithii* Brid. II. 118.  
*trichomitrium* Brid. II. 117.  
**LASIA** Subsect. II. 116. 669.

**LEERSIA** Hdw.

- ciliata* Hdw. I. 518.  
*cirrhata* Wils. II. 585.  
*cuspidata* Schrk. I. 549.  
*fimbriata* Brid. I. 518.  
*laciniata* Hdw. I. 518.  
*lanceolata* ej. I. 549.  
*pulvinata* ej. I. 784.  
*vulgaris* ej. I. 516.  
**LEIOPHYLLUM** Subsect. II. 41. 662.

**LEIOTHECA** Brid.

- apiculata* ej. I. 728.  
*clavellata* ej. I. 687.  
*filiformis* ej. I. 720.  
*gracilis* ej. I. 734.  
*incurvifolia* ej. I. 750.  
*involutifolia* ej. I. 749.  
*microstoma* ej. I. 727.  
*mucronifolia* ej. I. 746.  
*perichaetialis* ej. I. 733.  
*prorepens* ej. I. 725.  
*Reinwardti* ej. I. 735.  
*subtorta* ej. I. 750.  
*Swainsoni* ej. I. 747.

- LEPIDOPILUM** Brid.  
 affine C. Müll. II. 200.  
 binerve Brid. II. 220.  
 polytrichoides Brid. II. 206.  
 subnerve Brid. II. 196.  
 subnerve C. Müll. II. 195.  
 subnerve Hsch. II. 196.  
 Surinamense C. Müll. II. 207.
- LEPIDOPILUM** Sect. II. 192. 676.
- LEPTANGIUM** Mont.  
 Perrottetii ej. II. 185.
- LEPTOCHLAENA** Mont. I. 236. II. 566.  
 Chilensis Mont. I. 237.
- LEPTODON** Mohr.  
 coronatus Mont. II. 95.  
 filiformis Schimp. II. 119.  
 longisetus Mont. II. 119.  
 Ohioensis Sulliv. II. 93.  
 Smithii Mohr. II. 118. 669.  
 trichomitrium Mohr. II. 117.
- LEPTODON** Subsect. II. 118. 669.
- LEPTODONTIUM** Hmp.  
 aggregatum C. Müll. I. 580.  
 flexifolium Hmp. I. 578.
- LEPTODONTIUM** Sect. I. 577. II. 625.
- LEPTOHYMENIUM** Schw.  
 adscendens Hmp. II. 88.  
 dentatum Schw. II. 88.  
 elajochloron Lobarz. II. 90.  
 filiforme Hüb. II. 90.  
 gracile Hüb. II. 98.  
 heteropterum Hüb. II. 438.  
 hirtellum Schw. II. 468.  
 julaceum Br. et Sch. II. 71.  
 julaceum Hmp. II. 101.  
 longifolium Hmp. II. 475.  
 longisetum Hmp. II. 100.  
 microphyllum Schw. II. 490.  
 repens Hmp. II. 87.  
 striatum R. Br. II. 82.  
 tenue Schw. II. 452.
- LEPTOHYMENIUM** Sect. II. 80. 666.
- LEPTOTRICHACEAE** Trib. I. 415. II. 603.
- LEPTOTRICHELLA** Sect. I. 421. II. 604.
- LEPTOTRICHUM** Hmp. I. 446. II. 610.  
 affine C. Müll. I. 452.  
 Boryanum C. Müll. I. 452.  
 Capense C. Müll. I. 453.  
 crinale Mitt. II. 612.  
 dicranoides C. Müll. II. 612.  
 flexicaule Hmp. I. 449.  
 glaciale C. Müll. II. 611.  
 glaucescens Hmp. I. 569.
- LEPTOTRICHUM.**  
 homomallum Hmp. I. 453.  
 Hookeri C. Müll. I. 450.  
 Hornschuchii C. Müll. I. 450.  
 Kunzeanum C. Müll. I. 422.  
 longirostre C. Müll. I. 421.  
 Montagnei C. Müll. I. 448.  
 nivale C. Müll. II. 611.  
 pallidum Hmp. I. 451.  
 plicatum C. Müll. I. 446.  
 subulatum C. Müll. I. 448. II. 611.  
 tenue C. Müll. I. 447. II. 610.  
 tortile Hmp. I. 454.
- LEPTOSTOMUM** R. Br. I. 184. II. 557.  
 erectum R. Br. I. 187.  
 gracile R. Br. I. 187.  
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*sulcatum* Brid. I. 738.  
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 latifolium Gmel. I. 589.

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- latifolium Schl. I. 260.  
*lycopodioides* Schw. I. 164. II. 554.  
 Marchicum Hdw. I. 476.  
*medium* Br. et Sch. I. 160. II. 554.  
 Megapolitanum Gmel. I. 189.  
 membranaceum Brid. I. 169.  
*Menziesii* C. M. I. 177.  
*microphyllum* Dz. et M. I. 176.  
 minor Brid. I. 465.  
 murale L. fil. I. 625.  
 nigricans Brid. I. 259.  
*Novae Hollandiae* C. M. I. 173. II. 554.  
 nutans P. B. I. 335.  
*orthorrhynchum* auct. I. 163.  
 orthorrhynchum Brid. I. 194.  
 osmundaceum Dicks. I. 38.  
 palmifolium P. B. I. 341.  
 paludosum L. fil. I. 419.  
*palustre* Hdw. I. 169.  
*Paramattense* C. Müll. II. 555.  
 pellucidum L. I. 182.  
 pendulum Sm. I. 491.  
*pentastichum* C. M. I. 172.  
*polycarpum* C. M. I. 176.  
 polycephalum. Brid. I. 170.  
 polytrichoides L. I. 204.  
 proliferum Gmel. I. 247.  
 pseudopunctatum Br. et Sch. 156.  
 pseudotriquetrum Hdw. I. 258.  
 pulchellum P. B. I. 332.  
 punctatum Brid. I. 635.  
 punctatum Drumm. I. 156.  
*punctatum* Hdw. I. 155.  
 punctatum Hmp. I. 156.  
 purpureum L. I. 646.  
 pyriforme L. I. 330.  
*radiatum* Hook. et Wils. II. 556.  
 ramosum Hook. I. 158.  
 ramosum Huds. I. 170.  
 rhynchophorum Hook. I. 158.  
 rigidum Hsch. I. 263.  
 roseum Hedw. I. 247.  
*rostratum* Schw. I. 158. II. 554.  
 rubellum P. B. I. 295.  
 Rugicum Laur. I. 159.  
 rurale L. fil. I. 640.  
 schistoneuron Kze. I. 261.  
 serpyllifolium Hoffm. I. 155.  
 serpyllifolium L. I. 161. 2.  
*serratum* Brid. I. 163.

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- serratum* Schw. I. 163.  
*setaceum* Ehrh. I. 615.  
*setaceum* L. I. 458.  
*spathulatum* Hsch. I. 248.  
*sphaericarpum* Hdw. I. 481.  
*spiniforme* C. M. I. 175.  
*spinosum* Drumm. I. 158.  
*spinosum* Schw. I. 162. II. 554.  
*spinulosum* Br. et Sch. I. 162.  
 II. 554.  
*squarrosus* L. fil. I. 468.  
*stellare* Hdw. I. 166.  
*stygium* Br. et Sch. I. 153.  
*subbasilare* C. M. I. 174. II. 555.  
*subnerve* Schw. II. 207.  
*subglobosum* Br. et Sch. I. 156.  
*subulatum* Linn. fil. I. 623.  
*Timmia* Hoffm. I. 189.  
*tomentosum* Sw. I. 488.  
*tortile* Brid. I. 767.  
*tortuosum* L. fil. I. 601.  
*triquetrum* L. I. 467.  
*turbinatum* Hdw. I. 259.  
*turbinatum* Röhl. I. 333.  
*turgidum* Wahlenb. I. 171.  
*uliginosum* Gmel. I. 465.  
*Umbraculum* Schw. I. 248.  
*undulatum* Hdw. I. 161.  
*undulatum* L. fil. I. 192.  
*Zierii* P. B. I. 288.

## MOLLIA Schrk.

- muralis* ej. I. 625.  
*ruralis* ej. I. 640.  
*subulata* ej. I. 623.  
*tegularis* ej. I. 626.  
*tortuosa* ej. I. 601.  
*unguiculata* ej. I. 601.

## MORITZIA Hmp.

- Caripensis* ej. II. 170.

## NECKERA Hdw. II. 40. 662.

- abietina* Hook. II. 142.  
*Abyssinica* C. Müll. II. 71.  
*acuminata* Hook. II. 95.  
*acutifolia* Brid. II. 48.  
*adunca* Willd. II. 323.  
*affinis* Hook. II. 179.  
*Africana* C. Müll. II. 137.  
*albicans* Willd. II. 361.  
*alopecura* C. Müll. II. 104.  
*ambigua* C. Müll. II. 107.  
*anacamptolepis* C. Müll. II. 663.  
*angusta* C. Müll. II. 67.  
*angustifolia* C. Müll. II. 52.  
*appressa* C. Müll. II. 136. 670.

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- assimilis* C. Müll. II. 92.  
*Auberti* Brid. II. 190.  
*aurea* C. Müll. II. 86.  
*Australasica* C. Müll. II. 42.  
*Balfouriana* C. Müll. II. 121.  
*Bandongiae* C. Müll. II. 665.  
*Beyrichii* Schw. II. 66.  
*biductulosa* Schw. II. 206.  
*bipinnata* Schl. II. 118.  
*bipinnata* Schw. II. 178.  
*blanda* Harv. II. 185.  
*Boryana* C. Müll. II. 75.  
*brachyclada* C. Müll. II. 88.  
*brachypus* C. Müll. II. 108.  
*Brasiliensis* C. Müll. II. 96.  
*brevisetata* Hook. et Wils. II. 70.  
*Buchanani* C. Müll. II. 669.  
*Californica* Hook. et Arn. II. 117.  
*capillacea* C. Müll. II. 144.  
*capillaris* C. Müll. II. 134.  
*Canariensis* Brid. II. 109.  
*cernua* C. Müll. II. 64.  
*Chilensis* Schimp. II. 56.  
*chlorocaulis* C. Müll. II. 663.  
*chrysoclada* C. Müll. II. 139.  
*cirrhifolia* C. Müll. II. 138.  
*cirrhosa* Sw. I. 732.  
*cladorrhizans* Hdw. II. 70.  
*Clastobryum* C. Müll. II. 91.  
*cochlearifolia* C. Müll. II. 130.  
*coarctata* C. Müll. II. 69.  
*columnaris* Schw. II. 62.  
*complanata* Hüb. II. 43. 662.  
*complicata* C. Müll. II. 66. 665.  
*composita* Hdw. II. 178.  
*compressa* C. Müll. II. 66.  
*cordata* Hsch. II. 158.  
*coronata* C. Müll. II. 94.  
*crassa* Hsch. II. 160.  
*crassicaulis* C. Müll. II. 132.  
*crenulata* Harv. II. 183.  
*crispa* Hdw. II. 54. 664.  
*crispatula* Hook. II. 140.  
*Cryptotheca* C. Müll. II. 109.  
*Cumingii* C. Müll. II. 132.  
*cupressiformis* Willd. II. 290.  
*curtipendula* Hdw. II. 115. 668.  
*curvirostris* C. Müll. II. 108.  
*curvirostris* Schw. II. 318.  
*cyclophylla* C. Müll. II. 664.  
*cylindracea* Mont. II. 183.  
*cylindricaulis* C. Müll. II. 100. 667.  
*decipiens* Web. et Mohr. II. 90.  
*decomposita* C. Müll. II. 42.  
*dendroides* Brid. II. 121.

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- dendroides* Hook. II, 42.  
*dendroides* Hsch. et R. II, 42.  
*dendroides* Mont. II, 43.  
*densa* Wils. II, 160.  
*dentata* C. Müll. II, 88.  
*denticulata* C. Müll. II, 137.  
*Deppii* Hsch. II, 136.  
*diaphana* C. Müll. II, 105.  
*distans* C. Müll. II, 61.  
*disticha* Hdw. II, 46.  
*Domingensis* Spreng. II, 95.  
*Douglasii* Hook. II, 55.  
*Dozyana* C. Müll. II, 141.  
*Dregeana* Hsch. II, 63.  
*Drummondii* C. Müll. II, 106.  
*Ehrenbergii* C. Müll. II, 51.  
*Eriodon* C. Müll. II, 85.  
*exserta* Hook. II, 53.  
*falcata* C. Müll. II, 143.  
*filamentosa* Hook. II, 154.  
*filicina* Hdw. II, 181.  
*filifera* C. Müll. II, 133.  
*filiformis* C. Müll. II, 89.  
*filiformis* Hdw. II, 169.  
*fimbriata* Harv. II, 47.  
*flaccida* C. Müll. II, 54.  
*flavescens* C. Müll. II, 68.  
*flavescens* Hook. II, 70.  
*flexilis* C. Müll. II, 129.  
*flexuosa* Harv. II, 119.  
*funalis* C. Müll. II, 136.  
*fuscescens* C. Müll. II, 77.  
*fuscescens* Hook. II, 175.  
*glabella* Sw. II, 44.  
*glyphotheca* C. Müll. II, 668.  
*gracilis* C. Müll. II, 97.  
*gracillima* Tayl. II, 83.  
*Grateloupii* C. Müll. II, 82.  
*hamata* C. Müll. II, 78, 666.  
*Hampeana* C. Müll. II, 60.  
*hamulosa* Vill. II, 116.  
*Harveyana* C. Müll. II, 110.  
*heteromalla* Hdw. II, 168.  
*heterophylla* Brid. II, 58.  
*hexasticha* C. Müll. II, 126.  
*Hookeri* Dz. et M. II, 54.  
*Hornschuchiana* C. Müll. II, 51.  
*Humboldtii* C. Müll. II, 102.  
*hygrometrica* C. Müll. II, 667.  
*hypnoides* Hdw. II, 178.  
*hypnoides* Hook. II, 177.  
*illecebra* C. Müll. II, 137.  
*imberbis* C. Müll. II, 105.  
*imbricata* Hsch. II, 127.  
*imbricata* Schw. II, 128.

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- imbricata* Schw. II, 127.  
*implexa* C. Müll. II, 93.  
*incurvata* Hsch. II, 320.  
*Indica* C. Müll. II, 94.  
*intermedia* Brid. II, 49.  
*intermedia* Thed. II, 50.  
*Jamesonii* Tayl. II, 56.  
*Javanica* C. Müll. II, 41.  
*julacea* C. Müll. II, 100, 101.  
*julacea* Schw. II, 101.  
*Lagura* C. Müll. II, 96.  
*laurifolia* Harv. II, 498.  
*laxa* C. Müll. II, 83.  
*leiophylla* Gumb. II, 44, 662.  
*Lepineana* Mont. II, 49.  
*leptocarpa* Hook. et Wils. II, 61.  
*leucocaulon* C. Müll. II, 42.  
*leuoclada* C. Müll. II, 144.  
*leucocytus* C. Müll. II, 76.  
*leuconeura* C. Müll. II, 670.  
*Liebmanniana* C. Müll. II, 668.  
*lineolata* C. Müll. II, 76.  
*livens* C. Müll. II, 128.  
*longifolia* C. Müll. II, 60.  
*longipedunculata* C. Müll. II, 119.  
*longipes* C. Müll. II, 123.  
*longirostris* Hook. II, 224.  
*longiseta* Hook. II, 99.  
*longiseta* Hsch. I, 100.  
*longisetacea* C. Müll. II, 86.  
*longissima* C. Müll. II, 130.  
*longissima* Dz. et M. II, 141.  
*luteo-virens* Tayl. II, 161.  
*lutescens* Willd. II, 371.  
*macrocarpa* Brid. II, 225.  
*macrocarpa* C. Müll. II, 78.  
*macropelma* C. Müll. II, 104.  
*macropoda* Hdw. II, 59.  
*Madagascariensis* C. Müll. II, 75.  
*Menziesii* Hook. II, 48, 663.  
*minor* P. B. II, 474.  
*minor* Sulliv. II, 473.  
*Miqueliana* C. Müll. II, 138.  
*mollis* C. Müll. II, 131.  
*Moritzii* Hmp. II, 48.  
*myura* Schw. II, 67.  
*nigrescens* Schw. II, 134, 670.  
*nigricans* Nees ab Es. II, 132.  
*obliquifolia* Hsch. II, 57.  
*obtusata* Mont. II, 58.  
*obtusifolia* Tayl. II, 49.  
*octangula* C. Müll. II, 668.  
*Oerstediana* C. Müll. II, 671.  
*Ohioensis* C. Müll. II, 93.

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- oligocarpa* Bruch. II. 50. 663.  
*orthocarpa* C. Müll. II. 69.  
*pachygaster* C. Müll. II. 126.  
*pallescens* C. Müll. II. 63.  
*pallida* C. Müll. II. 113.  
*Patagonica* Brid. II. 44.  
*patula* Schw. II. 156.  
*pennata* Brid. II. 52.  
*pennata* Hdw. II. 50. 663.  
*pennata* Hsch. II. 51.  
*perpusilla* C. Müll. II. 666.  
*Perrottetii* C. Müll. II. 72. 665.  
*Philippeana* Br. Europ. II. 664.  
*phleoides* C. Müll. II. 132.  
*planifolia* Hdwg. II. 45.  
*planifolia* Hook. II. 45.  
*plicata* C. Müll. II. 60.  
*plicata* Schw. II. 159.  
*plumosa* Hsch. et R. II. 146.  
*Plumula* C. Müll. II. 53.  
*Plurini* Brid. II. 119.  
*Pöppigiana* C. Müll. II. 115.  
*Pohlii* C. Müll. II. 114.  
*polytrichoides* Schw. II. 206.  
*praemollis* C. Müll. II. 671.  
*procumbens* C. Müll. II. 80.  
*producta* Hsch. II. 94.  
*pseudalopecura* C. Müll. II. 92.  
*pulchella* C. Müll. II. 78.  
*pulvinata* C. Müll. II. 83. 666.  
*pumila* Hdw. II. 56. 664.  
*pumila* Hsch. II. 57.  
*pygmaea* Dz. et M. II. 82.  
*Regnelliana* C. Müll. II. 68.  
*Reinwardti* C. Müll. II. 120.  
*remota* Br. et Sch. II. 51.  
*remota* Schimp. II. 51.  
*remotifolia* Hsch. II. 672.  
*repens* Schw. II. 87. 666.  
*retusa* Brid. II. 47.  
*rigida* C. Müll. II. 126. 669.  
*rotundifolia* Hartm. II. 230.  
*rufescens* C. Müll. II. 134.  
*scabridens* C. Müll. II. 51.  
*scabriseta* C. Müll. II. 114.  
*scabriseta* Schw. II. 196.  
*Schimperiana* C. Müll. II. 104.  
*Schlechtendalii* Piep. II. 473.  
*sciuroides* C. Müll. II. 107. 668.  
*scrobiculata* Nees ab Es. II. 53.  
*secunda* C. Müll. II. 103.  
*secunda* Hook. II. 339.  
*seductrix* Hdw. II. 72.  
*semitorta* C. Müll. II. 671.  
*Sendtneriana* Br. Europ. II. 662.

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- sericea* C. Müll. II. 113.  
*sericea* Fröhl. II. 87.  
*sericea* Hdw. II. 356.  
*serpens* Willd. II. 412.  
*serrulata* Brid. II. 140.  
*setosa* Hook. II. 162.  
*Sieboldi* C. Müll. II. 81.  
*sinuata* C. Müll. II. 139.  
*Smithii* C. Müll. II. 118. 669.  
*sphaerocarpa* C. Müll. II. 105.  
*sphaerocarpa* Hook. II. 171.  
*splachnoides* Engl. Bot. II. 17.  
*splachnoides* Schw. II. 38.  
*splendens* Hsch. et R. II. 675.  
*squarrosa* C. Müll. II. 101.  
*squarrosa* Hook. II. 154.  
*squarrulosa* C. Müll. II. 101.  
*straminea* C. Müll. II. 99.  
*straminea* Hsch. II. 326.  
*striata* Schw. II. 81.  
*stricta* C. Müll. II. 112.  
*suborthosticha* C. Müll. II. 112.  
*subtilis* Brid. II. 415.  
*subulata* C. Müll. II. 145.  
*subuliformis* Hsch. et R. II. 146.  
*sulcata* C. Müll. II. 122.  
*Sullivanti* C. Müll. II. 65.  
*tenella* Schw. II. 166.  
*tenera* Hsch. II. 58.  
*tenuis* C. Müll. II. 124.  
*tenuis* Hook. II. 452.  
*teres* C. Müll. II. 98.  
*Ternströmiae* C. Müll. II. 139.  
*tetragona* C. Müll. II. 125.  
*tomentosa* C. Müll. II. 111.  
*torta* Sw. I. 759.  
*Trachyloma* C. Müll. II. 44.  
*Trachypus* C. Müll. II. 671.  
*trichoclada* C. Müll. II. 89.  
*trichomanoides* Hartm. II. 230.  
*trichomitron* C. Müll. II. 116.  
*trichophora* C. Müll. II. 130.  
*trichophylla* Sw. II. 111.  
*truncata* C. Müll. II. 62.  
*tumida* Dicks. II. 153.  
*tumidula* Hook. II. 153.  
*turgescens* C. Müll. II. 131. 670.  
*ulophylla* Web. et M. I. 713.  
*undulata* Hdw. II. 147.  
*undulata* Mont. II. 49.  
*urceolata* C. Müll. II. 77.  
*urnigera* C. Müll. II. 57.  
*Urvilleana* C. Müll. II. 52.  
*versicolor* C. Müll. II. 127.  
*virens* Hook. et Wils. II. 64.

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- viridis* C. Müll. II. 125.  
*viticulaeformis* Piep. II. 473.  
*viticulosa* Hdw. II. 473.  
*viticulosoides* P. B. I. 579.  
*vulpina* Mont. II. 79.  
*Wallichii* Dec. II. 141.

NECKERACEAE Subtr. II. 29. 661.

## NOTARISIA Hmp.

- Capensis* Hmp. I. 768.  
*Italica* Hmp. I. 770.  
*Virginica* Hmp. I. 770.

OCTOBLPCHARIS Schreb. I. 86.

OCTOBLEPHARUM Hdw. I. 86. II. 538.

- albidum* Hdw. I. 86.  
*cylindricum* Schimp. I. 87.  
*serratum* Brid. I. 141.

## OCTODICERAS Brid.

- Dillenii* ej. I. 45.  
*fissidentoides* ej. I. 45.  
*Julianum* ej. I. 44.

OCTODICERAS Sect. II. 524.

OEDIPODIUM Schw. I. 128. II. 549.

- Griffithianum* ej. I. 128.

## OLIGOTRICHUM Dec.

- Hercynicum* ej. I. 196.  
*laevigatum* Br. et Sch. I. 195.  
*undulatum* Lam. et Dec. I. 192.

OLIGOTRICHUM Sect. I. 196. II. 559.

## OMALIA Brid.

- Besseri* Lobarz. II. 45.  
*complanata* ej. II. 43.  
*cymbifolia* Brid. II. 264.  
*decomposita* ej. II. 42.  
*flabellata* Brid. II. 225.  
*inflectens* Brid. II. 239.  
*involvens* Brid. II. 496.  
*lentula* Wils. II. 46.  
*rutilans* Brid. II. 234. 242.  
*trichomanoides* Brid. II. 230. 681.

OMALIA Sect. II. 233. 681.

OMALIADELPHUS Subsect. II. 208.  
678.

## ONCOPHORUS Brid.

- cerviculatus* ej. I. 430.  
*conglomeratus* ej. I. 357.  
*dichotomus* ej. I. 362.  
*falcatus* ej. I. 364.  
*flavidus* ej. I. 430.  
*fragilis* ej. I. 357.  
*glaucus* Schimp. I. 75.  
*longirostris* Brid. I. 357.  
*polycarpus* ej. II. 591.  
*pusillus* ej. I. 430.  
*squarrosus* ej. I. 438.

## ONCOPHORUS.

- Starckii* ej. I. 364.  
*strigosus* ej. I. 367.  
*strumifer* ej. II. 591. 592.  
*virens* ej. II. 609.  
*Wahlenbergii* ej. II. 610.

ONCOPHORUS Sect. I. 355. II. 589.

OREADELLA Sect. I. 508. II. 619.

OREAS Brid. I. 509. II. 620.

- Capensis* Bruch. I. 231.  
*elongata* Brid. I. 235.  
*Martiana* ej. I. 509.  
*Mielichhoferi* ej. I. 235.

ORTHOCARPUS Sect. I. 319. II. 578.

ORTHODICRANUM Sect. I. 371. II. 593.

## ORTHODON Bory.

- serratus* ej. I. 141.

ORTHODONTIUM Schw. I. 237. II. 566.

- Australe* H. et W. I. 239. II. 567.

*gracile* Schw. I. 238.*infractum* Dz. et M. I. 239. II. 566.*julaceum* Schw. I. 293.*lineare* Schw. I. 238.*pellucens* Br. et Sch. I. 240.*sulcatum* H. et W. I. 239. II. 566.*tenue* C. Müll. I. 240.ORTHOPHYLLARIA Sect. I. 688. II.  
638.

ORTHOPYLLINA Sect. I. 723. II. 641.

ORTHOPHYLLUM Sect. I. 532. II. 621.

## ORTHOPYXIS P. B.

- androgyna* ej. I. 170.  
*aristata* ej. I. 612.  
*heterosticha* ej. I. 169.  
*longicolla* ej. I. 336.  
*macrocarpa* ej. I. 186.  
*Megapolitana* ej. I. 189.  
*palustris* ej. I. 169.  
*ramosa* ej. I. 170.  
*squarrosa* ej. I. 468.

ORTHOSTICHELLA Subsect. II. 123. 669.

## ORTHO THECA Brid.

- Berteriana* ej. I. 539. 540.  
*circinnata* ej. I. 537.  
*lycopodioides* ej. I. 539.

ORTHO THECA Sect. I. 534. II. 621.

ORTHOTRICHACEAE Subtr. I. 665. II.  
636.ORTHOTRICHAEAE Hemic. I. 666. II.  
636.

ORTHOTRICHUM Hdw. I. 688. II. 638.

*aciculare* Hock. et Gr. I. 745.*acutifolium* Hook. et Grev. I. 729.*affine* Hook. I. 703.*affine* H. et Turn. I. 696.*affine* Schrad. I. 705.

## ORTHOTRICHUM.

- affine* Schw. I. 698.  
*alpestre* Hsch. I. 698. II. 638.  
*Americanum* P. B. I. 692.  
*angulosum* P. B. I. 753.  
*angustifolium* Hook. et Wils. I. 691. II. 638.  
*anomalum* Hdw. I. 694.  
*apiculatum* Hook. I. 728.  
*aristatum* Turn. I. 695.  
*assimile* C. Müll. I. 704.  
*aureum* Mart. I. 694.  
*Barthii* Sendtner. I. 693.  
*Braunii* Br. et Sch. I. 702.  
*Breutelii* Hmp. I. 693.  
*breve* P. B. I. 745.  
*Brownianum* Sm. I. 181.  
*Bruchii* Hüb. I. 706.  
*callistomum* Fisch. Oost. II. 639.  
*Canadense* Br. et Sch. I. 703.  
*cirrhatum* Bernhardt. I. 714.  
*cirrhosum* Hook. I. 732.  
*clausum* Hsch. I. 714.  
*clavellatum* Hook. I. 687.  
*coarctatum* P. B. I. 713.  
*commutatum* Bruch. I. 700.  
*compositum* Brid. II. 178.  
*confertum* Bruch. I. 700.  
*crassifolium* Hook. et Wils. I. 691. II. 638.  
*crispatum* Hook. et Grev. I. 768.  
*crispulum* Hsch. I. 713.  
*crispum* Brid. I. 718.  
*crispum* Hdw. I. 712.  
*crispum* Hook. et Wils. I. 717.  
*crispum* Schw. I. 714.  
*cupulatum* Hoffm. I. 700.  
*cupulatum* Hüb. I. 700.  
*curvatum* Brid. I. 798.  
*curvifolium* Wahlenb. I. 715.  
*diaphanum* Schrad. I. 694.  
*dilatatum* Br. et Sch. I. 713.  
*Drummondii* Hook. et Grev. I. 712.  
*Eckloni* Hsch. I. 715.  
*elegans* Hsch. I. 729.  
*elegans* Schw. I. 706.  
*elongatum* Tayl. I. 707.  
*fallax* Bruch. I. 697.  
*fasciculatum* Brid. I. 718.  
*fastigiatum* Bruch. I. 698.  
*ferrugineum* Hook. et Gr. I. 756.  
*filiforme* Hook. et Gr. I. 720.  
*fimbriatum* P. B. I. 739.  
*Flörkei* Hsch. I. 700.  
*germanum* Mont. I. 715. II. 641.

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- glaucum* Spreng. I. 695.  
*gracile* Hook. I. 734.  
*gymnostomum* Blytt. I. 689.  
*gymnostomum* Bruch. I. 689.  
*Hercynicum* Hoffm. I. 196.  
*heteromallum* Schw. I. 718.  
*heterophyllum* P. B. I. 695.  
*Hornschuchii* Hook. I. 722.  
*humile* Schleich. I. 694.  
*Hutchinsiae* Hook. et Tayl. I. 692.  
*immersum* Brid. I. 701.  
*incurvifolium* Hook. et Grev. I. 750.  
*inflexum* C. Müll. I. 690.  
*involutifolium* Hook. et Grev. I. 749.  
*Jamesoni* Arnott. I. 758.  
*Jutlandicum* Brid. I. 717.  
*laeve* Brid. I. 745.  
*lanceolatum* W. Arn. I. 731.  
*Laureri* Hsch. I. 715.  
*laxifolium* Wils. II. 640.  
*leiocarpum* Br. I. 708.  
*leptocarpon* Br. et Sch. I. 706.  
*leucomitrium* Bruch. I. 695.  
*longifolium* Hook. I. 737.  
*longipes* Hook. I. 730.  
*longirostre* Hook. I. 729.  
*Ludwigii* Schw. I. 714.  
*luteolum* Hook. et Wils. I. 715. II. 641.  
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*Lyellii* Hook. et Tayl. I. 709.  
*Magellanicum* Mont. I. 716.  
*Meyenianum* Hmp. II. 639.  
*microphyllum* Hook. et Gr. I. 721.  
*microstomum* Hook. I. 727.  
*minus* Schw. I. 714.  
*Moorcroftii* Hook. I. 736.  
*mucronifolium* Hook. et Grev. I. 746.  
*Nepalense* Hook. I. 726.  
*nigratum* Br. et Sch. I. 692.  
*nudum* Sm. I. 700.  
*obtusifolium* Hook. I. 690.  
*obtusifolium* Schrad. I. 688.  
*octoblepharis* Brid. I. 705.  
*pallens* Bruch. I. 701.  
*patens* Bruch. I. 703.  
*perichaetiale* Hook. et Grev. I. 733.  
*phyllanthum* Steud. I. 717.  
*pilosum* P. B. I. 695.  
*plicatum* Ludw. I. 714.  
*plicatum* P. B. I. 690.  
*polytrichoides* Brid. II. 206.

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- prorepens* Hook. I. 725.  
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*pulchellum* Hook. et Tayl. I. 711.  
*pumilum* Hook. I. 703.  
*pumilum* Sw. I. 696.  
*punctatum* Hook. et Grev. I. 748.  
*pycnophyllum* Schimp. I. 709.  
*Pylaisaei* Brid. I. 693.  
*quadrifidum* Hook. et Grev. I. 753.  
*radiculosum* Brid. I. 718.  
*recurvans* Schimp. I. 709.  
*recurvifolium* C. Müll. II. 640.  
*recurvifolium* Hook. et Grev. I. 750.  
*reflexum* Hsch. I. 700.  
*riparium* Hüb. I. 700.  
*rivulare* Turn. I. 699.  
*Rogeri* Br. et Sch. I. 690.  
*Rogeri* Brid. I. 700.  
*Rudolphianum* Lehm. I. 700.  
*rugifolium* Hook. I. 761.  
*rupestre* Schleich. I. 707.  
*rupicola* Fk. I. 708.  
*saxatile* Brid. I. 694.  
*Sehlmeyeri* Hsch. I. 708.  
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*Sprucei* Mont. I. 699. II. 639.  
*squarrosus* Hook. et Grev. I. 752.  
*stellatum* Brid. I. 703.  
*stellulatum* Hook. et Grev. I. 748.  
*stenocarpon* Bred. I. 711.  
*stramineum* Br. 698.  
*stramineum* Hsch. I. 697.  
*strangulatum* P. B. I. 702.  
*striatum* Hedw. I. 708.  
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*Sturmi* Hsch. et Hpp. I. 708.  
*submarginatum* Br. I. 691.  
*subrepens* Sommerf. I. 712.  
*subtortum* Hook. et Grev. I. 750.  
*sulcatum* Hook. et Grev. I. 738.  
*Tasmannicum* Hook. et Wils. I. 707.  
*tenellum* Bruch. I. 704.  
*tenue* Hook. I. 720.  
*tortum* Hook. et Grev. I. 759.  
*ulmicola* Lagasca. I. 695.  
*umbonatum* Brid. I. 697. 705.  
*undulatum* Hook. et Grev. I. 749.  
*urceolatum* Hook. I. 726.  
*urceolatum* Schleich. I. 700.  
*urnigerum* Myrin. I. 710.
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*alternifolium* Hook. et Tayl. I. 13.  
*axillare* Dicks. I. 17.  
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*Beyrichianum* Schw. I. 18.  
*brevipes* Schw. I. 18.  
*Bruchii* Spr. I. 13.  
*bryoides* Dicks. I. 28. II. 521.  
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*carinatum* Wils. I. 23.  
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*crassinervium* Schw. I. 33.  
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*crispum* Sulliv. II. 519.  
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*curvicollum* Hedw. I. 27. II. 521.  
*curvisetum* Dicks. I. 26.  
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*Drummondii* Wils. II. 521.  
*dubium* La Pyl. I. 30.  
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*Flotowianum* Fk. I. 32.  
*globiferum* Bruch. I. 13.  
*globosum* Schl. I. 22.  
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*nervosum* Spr. I. 19.  
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*palustre* Br. et Sch. I. 19.  
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*rostellatum* Brid. I. 24. II. 520.  
*Schreberianum* Dicks. I. 25.  
*serratum* Schreb. I. 31.  
*sessile* Br. et Sch. I. 33.  
*splachnoides* Hsch. I. 27. II. 521.  
*stagninum* Walb. I. 17.  
*stellatum* Brid. I. 29.  
*stoloniferum* Dicks. I. 31.  
*strictum* Dicks. I. 17.  
*subexsertum* Hook. I. 26. II. 521.  
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*Sullivantii* C. Müll. II. 519.  
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*coronatum* C. Müll. II. 184.  
*cylindraceutum* C. Müll. II. 182.  
*Dalecarlicum* C. Müll. II. 149.  
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*exiguum* C. Müll. II. 166.  
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*julaceum* C. Müll. II. 173.  
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*luteo-virens* C. Müll. II. 161.  
*nervosum* C. Müll. II. 169.  
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*nivale* C. Müll. II. 165.  
*obtusifolium* Brid. II. 218.  
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*Patagonicum* P. B. II. 44.  
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*plicatum* C. Müll. II. 158.  
*Plumula* Nees ab Es. II. 54.  
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*setosum* C. Müll. II. 162.  
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*sphagnifolium* C. Müll. II. 150.  
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*squamosum* C. Müll. II. 149.  
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*stramineum* C. Müll. II. 157.  
*Strömbäckii* C. Müll. II. 150.  
*subrevolutum* C. Müll. II. 165.  
*Symphysodon* C. Müll. II. 181.  
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   *Canariensis* Brid. II. 110.  
   *tortuosa* Brid. I. 569.  
   *tortuosa* Bruch. I. 571.
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   *globiferum* Brid. I. 16.  
   *nitidum* Br. Europ. II. 518.  
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*tristicha* Br. et Sch. I. 420.
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*acutifolium* Sulliv. II. 539.  
*alpinum* Ruhl. I. 97.  
*ambiguum* Hüb. I. 99.  
*arboreum* L. II. 168.  
*Ascherbachianum* Breut. I. 97.  
*Capense* Hsch. I. 103.  
*capillifolioides* Breut. I. 97.  
*capillifolium* Ehrh. I. 97.  
*Chinense* Brid. I. 104.  
*compactum* Brid. I. 98. II. 539.  
*compactum* Hsch. I. 93.  
*condensatum* Brid. I. 103.  
*condensatum* Schl. I. 99.  
*contortum* Schz. I. 100.  
*cuspidatum* Ehrh. I. 96.  
*cuspidatum* Fk. I. 98.  
*cuspidatum* Nees et Hsch. I. 98.  
*cymbifolioides* Breut. I. 92.  
*cymbifolium* Brid. I. 95.  
*cymbifolium* Ehrh. I. 91. II. 538.  
*cymbifolium* Hsch. I. 93.  
*denticulatum* Brid. I. 101.  
*ericetorum* Brid. I. 103.  
*erythrocalyx* Hmp. I. 92.  
*fimbriatum* Wils. II. 538.  
*gracile* Rich. I. 97.  
*Helveticum* Schk. I. 99.  
*humile* Br. et Sch. I. 99. 104.  
*hypnoides* A. Br. I. 98.  
*imbricatum* Hsch. I. 92.  
*immersum* Nees et Hsch. I. 99.  
*intermedium* Hoffm. I. 97.  
*iridans* Brid. I. 77.

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- Javense* Schw. I. 79.  
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*laxifolium* C. M. I. 97.  
*Magellanicum* Brid. I. 92.  
*macrophyllum* Bernh. I. 91. II. 538.  
*macrophyllum* Brid. I. 77. 91.  
*Meridense* C. M. I. 95. II. 538.  
*molle* Sulliv. I. 104. II. 539.  
*molluscoides* C. M. I. 99. II. 539.  
*molluscum* Bruch. I. 93.  
*nemoreum* Scop. I. 97.  
*oblongum* P. B. I. 92.  
*obtusifolium* Ehrh. II. 538.  
*obtusifolium* Mart. I. 92.  
*obtusifolium* Web. et M. I. 99.  
*palustre* Weis. I. 97.  
*Pappeanum* C. M. I. 101.  
*pentastichum* Brid. I. 96.  
*perichaetiale* Hmp. I. 93.  
*praemorsum* Zk. et Dietr. I. 99.  
*pulchricoma* C. M. I. 102. II. 538.  
*Pylaesii* Brid. I. 92.  
*recurvum* Brid. I. 97.  
*sedoides* Brid. I. 92.  
*sericeum* C. M. I. 90.  
*simplicissimum* Loureiro. I. 565.  
*squarrosus* Fk. I. 94.  
*squarrosus* Hsch. I. 102.  
*squarrosus* Hüb. I. 94.  
*squarrosus* Pers. I. 94. II. 538.  
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*strictum* Sulliv. I. 104. II. 539.  
*subsecundum* C. M. I. 95.  
*subsecundum* Nees. I. 100. II. 539.  
*subulatum* Brid. I. 97.  
*tabulare* Sulliv. I. 104. II. 539.  
*tenellum* Nees et Hsch. I. 94.  
*tenellum* Pers. I. 101.  
*Torreyanum* Sulliv. II. 539.  
*Trinitense* C. M. I. 102.  
*tristichum* Schz. I. 99.  
*truncatum* Hsch. I. 103.
- SPIRIDENS Nees ab Es.  
*Balfourianus* Grev. II. 121.  
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- SPIRULA Dz. et Molkb.  
*speciosa* eor. I. 84. II. 537.
- SPLACHNACEAE Subtr. I. 127. II. 549.
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*angustatum* L. I. 130.  
*arcticum* R. Br. I. 131.  
*attenuatum* Brid. I. 133.  
*Bavaricum* Schrank. I. 145.  
*Brewerianum* Hdw. I. 131.  
*bryoides* Zoega. I. 131.  
*canescens* P. B. I. 131.  
*exsertum* R. Br. I. 131.  
*fastigiatum* Dicks. I. 131.  
*flagellare* Brid. I. 133.  
*Fröhlichianum* Brid. I. 129.  
*Fröhlichianum* Hdw. I. 138.  
*gracile* Schw. I. 144.  
*Griffithianum* With. et Hull. I. 129.  
*Gunnii* Wils. II. 552.  
*Helveticum* Schl. I. 133.  
*heterophyllum* Drumm. I. 145.  
*intermedium* Drumm. I. 144.  
*Jurassi* Schw. I. 148.  
*lingulatum* Dicks. I. 139.  
*lingulatum* Hoffm. I. 133.  
*longicollum* Dicks. I. 133.  
*longicollum* Schw. I. 148.  
*longisetum* Schrank. I. 145.  
*luteum* L. I. 147.  
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*melanocaulon* Schw. I. 147.  
*muroides* Hdw. I. 130.  
*octoblepharon* Hook. I. 142.  
*octoblepharon* H. et Wils. II. 551.  
*ovatum* Hdw. I. 144.  
*paradoxum* R. Br. I. 131.  
*plagiopus* Mont. I. 143. II. 551.  
*propinquum* R. Br. I. 131.  
*purpurascens* Hook. et Wils. I. 142. II. 551.  
*pusillum* P. B. I. 145.  
*refractum* Schw. I. 144.  
*reticulatum* Schw. I. 138.  
*rubrum* L. I. 146. II. 552.  
*rugosum* Sm. I. 145.  
*sagittaefolium* With. I. 146.  
*scabrisetum* Hook. I. 140.  
*semivacuum* P. B. I. 705.  
*serratum* Hdw. I. 133.  
*serratum* Schw. I. 133.  
*setaceum* Mich. I. 130.  
*sphaericum* L. fil. I. 144.  
*squarrosus* Hook. I. 141.  
*tenue* Dicks. I. 133.  
*tenue* Rühl. I. 133.

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*Turnerianum* Dicks. I. 146.  
*urceolatum* Brid. I. 132.  
*urceolatum* Dicks. I. 130.  
*urceolatum* Wahlenb. I. 131.  
*vasculosum* L. I. 145.  
*viride* Vill. I. 144.  
*Wormskioldii* Horn. I. 143.
- SPORLEDERA Hmp.
- Beyrichiana* Hmp. I. 18.  
*brevipes* Hmp. I. 19.  
*Drummondii* Hmp. I. 20.  
*Eckloniana* Hmp. I. 19.  
*flexuosa* Hmp. I. 20.  
*palustris* Hmp. I. 19.  
*Schwägrichenii* Hmp. I. 18.
- SPORLEDERA Sect. I. 18. II. 518.
- SPRUCEA H. et W.
- perichaetialis* eor. I. 351.
- STEREODON Brid.
- abietinus* ej. II. 483.  
*adnatus* ej. II. 340.  
*aduncus* ej. II. 323. 324.  
*Algirianus* ej. II. 396.  
*alpestris* ej. II. 431.  
*Auberti* Brid. II. 262.  
*Blandowii* ej. II. 455.  
*cavifolius* ej. II. 252.  
*Chamissonis* Brid. II. 305.  
*chrysophyllum* ej. II. 435.  
*circinalis* ej. II. 318.  
*confervoides* ej. II. 414.  
*contextus* ej. II. 412.  
*cordifolius* ej. II. 379.  
*cupressiformis* ej. II. 289.  
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 — *chrysocoma* ej. II. 290.  
 — *complanata* ej. II. 289.  
 — *compressa* ej. II. 289.  
 — *conica* ej. II. 299.  
 — *corruscans* ej. II. 290.  
 — *crispatissima* ej. II. 299.  
 — *decipiens* ej. II. 289.  
 — *filiformis* ej. II. 289.  
 — *hamulosa* ej. II. 299.  
 — *julacea* ej. II. 289.  
 — *lacunosa* ej. II. 289.  
 — *Lauri* ej. II. 290.  
 — *longiseta* ej. II. 290.  
 — *mammillata* ej. II. 289.  
 — *nigro-viridis* ej. II. 290.  
 — *plumosa* ej. II. 290.  
 — *regularis* ej. II. 307.  
 — *tectorum* ej. II. 289.
- curvifolius* Brid. II. 293.

## STEREODON.

- cuspidatus Brid. II. 383.  
 denticulatus ej. II. 252.  
 dimorphus ej. II. 491.  
 fastigiatus Brid. II. 299.  
 fluitans ej. II. 323.  
 fragilis ej. II. 299.  
 Halleri ej. II. 440.  
 imponens Brid. II. 292.  
 intextum ej. II. 347.  
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 muroides Brid. I. 176.  
 mollis ej. II. 431.  
 muralis ej. II. 347. 462.  
 neglectus ej. II. 347.  
 nitens Brid. II. 382.  
 pallidisetus ej. II. 331.  
 palustris ej. II. 424.  
 plicatus ej. II. 364.  
 praecox ej. II. 428.  
 protuberans Brid. II. 291.  
 radicalis ej. II. 412.  
 recurvans ej. II. 308.  
 robustus Brid. II. 257.  
 ruderalis ej. II. 352.  
 rugosus ej. II. 424.  
 scitus ej. II. 488.  
 scorpioides ej. II. 419.  
 serpens Brid. II. 412.  
 Silesiacus Brid. II. 259.  
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 stramineus ej. II. 378.  
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 tectorum ej. II. 491.  
 Terrae Novae Brid. II. 292.  
 trifarius Brid. II. 381.  
 uncinatus ej. II. 322.  
 varius ej. II. 412.  
 Virginianus ej. II. 492.
- STREBLOTICHUM P. B.  
 convolutum ej. I. 615.
- STREPHEDIUM P. B.  
 hygrometricum ej. I. 107.
- STREPTOPOGON Wils.  
 erythrodontus ej. II. 630.
- STRIGODIUM Subsect. II. 434. 689.
- STYLOSTEGIUM Br. et Sch.  
 cespiticium eor. I. 345.

## SWARTZIA Hdw.

- capillacea ej. I. 41.  
 cernua Poir. I. 267.  
 inclinata ej. I. 41.  
 pilifera Brid. I. 589.  
 pusilla Ehrh. I. 419.  
 radiculosa Ehrh. I. 267.  
 trifaria Hdw. I. 575.
- SYMBLEPHARIS Mont. I. 460. II. 613.  
*Chrysmari* C. Müll. II. 614.  
*helicophylla* Mont. I. 461.  
*Oerstediana* C. Müll. II. 613.
- SYMPHYODON Mont.  
 Perrottetii Mont. II. 73.
- SYMPHYSODON Dz. et M.  
 neckeroides eor. II. 182.
- SYNTRICHIA Web. et M.  
 alpina Brid. I. 623.  
 ericetorum Brid. I. 613.  
 inermis Br. I. 624.  
 intermedia Brid. I. 640.  
 laevipila Brid. I. 639.  
 laevipila Schultz. I. 633.  
 latifolia Bruch. I. 633.  
 macrocarpa Br. I. 623.  
 montana Nees. I. 639.  
 mucronifolia Br. I. 624.  
 Mülleri Bruch. I. 637.  
 mutica Schultz. I. 633.  
 Norvegica Brid. I. 643.  
 ruralis Web. et M. I. 640.  
 subulata Br. I. 624.  
 subulata Web. et M. I. 623.
- SYRRHOPODON Schw. I. 528. II. 621.  
 acanthoneuros C. Müll. I. 542.  
*alboraginatus* Schw. I. 541.  
 apiculatus Dz. et M. I. 81.  
*Berteroanus* C. Müll. I. 539.  
 Blumii Nees. I. 529. II. 537.  
 candidus Hsch. I. 82.  
*ciliatus* Schw. I. 544.  
*clavatus* Schw. I. 532.  
*Codonoblepharum* C. Müll. I. 529.  
*Dregei* Hsch. I. 530.  
 dubius Schw. I. 669.  
 dubius Sendtn. I. 601.  
*elatus* Mont. I. 545.  
 excelsus Sulliv. I. 679.  
*fasciculatus* Hook. et Grev. I. 529.  
*flavescens* C. Müll. I. 541.  
*Gardneri* Schw. I. 538.  
*Gaudichaudi* Mont. I. 542.  
 glaucus Schw. I. 83.  
*Hobsoni* Hook. et Gr. I. 534.

## SYRRHOPODON.

- Hornschuchii* Mart. I. 528.  
*incompletus* Schw. I. 535.  
*involutus* Schw. I. 533.  
*Jamesoni* Tayl. I. 545.  
*Leprieurii* Mont. I. 541.  
*longisetaceus* C. Müll. I. 535.  
*Malouinensis* C. Müll. I. 539.  
*Miquelianus* C. Müll. I. 535.  
*obliquirostris* C. Müll. I. 543.  
*obtusus* Schw. I. 140.  
*octoblepharis* Nees. I. 82.  
*papillosus* C. Müll. I. 543.  
*purvulus* Schimp. I. 544.  
*perichaetialis* Bruch. I. 531.  
*pomiformis* Hmp. I. 531.  
*prolifer* Schw. I. 542.  
*recurvifolius* Hsch. I. 546.  
*Reinwardtii* Hornsch. I. 678.  
*repens* Harv. I. 526.  
*revolutus* Dz. et M. I. 532.  
*rigescens* Schw. I. 533.  
*rigidus* Hook. et Grev. I. 536.  
*rufescens* Hook. I. 534.  
*semicompletus* Schw. I. 535.  
*sordidus* C. Müll. I. 537.  
*speciosus* Dz. et M. I. 84. II. 537.  
*spiculosus* Hook. et Gr. I. 534.  
*Taylori* Schw. I. 545.  
*tortuosus* Hsch. I. 682.  
*tristichus* Nees. I. 540.  
*undulatus* A. Br. I. 529.  
*undulatus* C. Müll. I. 543.  
*Urvilleanus* C. Müll. I. 540.

## SYSTILIUM Hsch.

- splachnoides* ej. I. 137.

## SYSTILIUM Sect. I. 137. II. 550.

## TAMARISCELLA Subsect. II. 482. 691.

- TAYLORIA** Hook. I. 132. II. 549.  
*acuminata* Hsch. I. 136.  
*cuspidata* Hartm. I. 136.  
*Jamesoni* C. M. I. 135.  
*Moritziana* C. M. I. 134.  
*obliqua* Nees. I. 136.  
*Pichinchensis* C. Müll. II. 549.  
*Rudolphiana* Br. et Sch. I. 136. II. 550.  
*serrata* Br. et Sch. I. 133.  
*spathulata* C. M. I. 134.  
*splachnoides* Hook. I. 135.

## TAXICAULIS Subsect. II. 277. 684.

## TETRACMIS Sect. I. 182. II. 557.

## TETRAPHIS Hdw.

## TETRAPHIS.

- Browniana* Brid. I. 181.  
*cylindrica* Voit. I. 182.  
*oblonga* Turn. I. 182.  
*ovata* Fk. I. 181.  
*pellucida* Hdw. I. 182.  
*repanda* Fk. I. 181.  
*rigida* Hdw. fil. I. 182.

## TETRAPLODON Br. et Sch. I. 129. II. 549.

- angustatus* Br. et Sch. I. 130.  
*mnioides* Br. et Sch. I. 130.  
*urceolatus* Br. et Sch. I. 131.

## TETRODONTIUM Schw.

- Brownianum* ej. I. 181.  
*ovatum* ej. I. 182.  
*repandum* ej. I. 181.

## TETRODONTIUM Sect. I. 180. II. 557.

## THELIPHYLLUM Sect. II. 468. 691

## TIMMIA Hdw. I. 188. II. 557.

- Austriaca* Hdw. I. 189.  
*Bavarica* Hessel. I. 189.  
*cucullata* Mich. I. 189.  
*Megapolitana* Hedw. I. 189. II. 557.

- Megapolitana* Flörke. I. 190.  
*polytrichoides* Brid. I. 189.

## THYSANOMITRIUM Schw.

- arctocarpum* Hmp. I. 396.  
*comosum* R. et Hsch. I. 397.  
*exasperatum* Nees. I. 385.  
*griseum* Hsch. I. 407.  
*introflexum* Hmp. I. 408.  
*macrophyllum* Wils. II. 600.  
*Richardi* Schw. I. 413.  
*rigidum* Hmp. I. 410.  
*scabrisetum* Hmp. I. 405.  
*stenocarpum* ej. I. 405.  
*uncinatum* Harv. I. 404.

## TORTELLA Sect. I. 599. II. 630.

## TORTULA Hdw.

- acuminata* Brid. I. 613.  
*acuminata* Brid. I. 623.  
*ambigua* Röhl. I. 625.  
*aristata* Sm. I. 612.  
*barbata* Sm. I. 612.  
*bifrons* De Not. I. 596.  
*brevifolia* Sm. I. 617.  
*bryoides* Hook. I. 595.  
*crassinervia* De Not. I. 598.  
*curta* Sw. I. 455.  
*curvata* Schleich. I. 600.  
*decipiens* Brid. I. 604.  
*dubia* P. Br. I. 612.  
*enervis* Hook. I. 596.

## TORTULA.

- ericetorum Sm. I. 613.  
 fallax De Not. I. 610.  
 fallax vinealis De Not. I. 618.  
 Goettingensis Brid. I. 625.  
 Hercynica Schrad. I. 623.  
 humilis Hook. I. 591.  
 imberbis Sm. I. 617.  
 Indica Hook. I. 468.  
 insulana De Not. I. 618.  
 intermedia De Not. I. 602.  
 lacustris P. B. I. 582.  
 laevipila Hook. I. 639.  
 leucostoma Hook. I. 631.  
 Lusitanica Brid. I. 583.  
 marginata Kz. I. 630.  
 mucronifolia Roehl. I. 624.  
 Mülleri Hook. et Wils. I. 638.  
 mutica Brid. I. 628.  
 parvula Hook. I. 591.  
 pilosa Schrad. I. 625.  
 revoluta Hook. et Tayl. I. 622.  
 rigida Hook. et Tayl. I. 597.  
 rotundifolia Hartm. II. 632.  
 ruralis Hook. I. 639.  
 ruralis alpina De Not. I. 643.  
 ruralis crinita De Not. I. 640.  
 Saussuriana Brid. I. 647.  
 spathulaefolia De Not. I. 628.  
 squarrosa De Not. I. 602.  
 suberecta Hook. I. 594.  
 subulata Drum. I. 624.  
 subulata Röhl. I. 624.

## TRACHYLOMA.

- planifolium Brid. II. 45.

## TRACHYMITRIUM Brid.

- ciliatum ej. I. 544.

## TRACHYPODIUM Bruch.

- lutescens ej. II. 678.

## TRACHYPUS Hsch.

- bicolor ej. II. 163.

## TREMATODON Rich. I. 456. II. 613.

- acutus C. Müll. I. 458.  
 affinis Br. et Sch. I. 460.  
 ambiguus Hsch. I. 457.  
 ambiguus Schw. I. 457.  
 brevicollis Hsch. I. 457.  
 divaricatus Br. et Sch. I. 460.  
 fontinaloides Röhl. II. 652.  
 longicollis Dub. I. 459.  
 longicollis Hb. I. 460.  
 longicollis Hsch. I. 459.  
 longicollis Rich. I. 458.  
 longirostris Schw. I. 421.  
 paradoxus Hsch. I. 456.  
 paucifolius C. Müll. I. 459.

## TREMATODON.

- reflexus C. Müll. I. 459.  
 vulgaris Brid. I. 458.

## TRENTEPOHLIA Roth.

- erecta ej. I. 331.

## TRICHOSTOMUM Hdw. I. 567. II. 624.

- aciculare Schw. I. 801.  
 aciculare Web. et M. I. 800.  
 aeneum C. Müll. II. 628.  
 affine Schl. I. 808.  
 aggregatum C. Müll. I. 580.  
 aloides Koch. I. 597.  
 Alopecurum Schk. I. 808.  
 amblyophyllum C. Müll. I. 592.  
 Anomodon Bals. et De Not II. 625.  
 aquaticum Br. I. 800.  
 arbustorum Br. I. 745.  
 Barbula Schwägr. I. 583.  
 barbuloides Br. I. 583.  
 basiflorum Schrk. I. 647.  
 Berteroanum C. Müll. I. 568.  
 bifidum Brid. I. 354.  
 Blumii Dz. et M. I. 386.  
 Bombayense C. Müll. II. 628.  
 brachydontium Bruch et Müll. I. 571.  
 brevicaulis Hmp. I. 567.  
 brevifolium Sendtner. I. 572.  
 calcicola Hmp. I. 587.  
 campylocarpum C. Müll. II. 628.  
 canescens Hedw. II. 807.  
 capillaceum Sm. I. 41.  
 Chilense Mont. I. 576.  
 cirrhatum Fl. Brit. I. 767.  
 cirrhatum Hmp. I. 584.  
 conicum Hmp. I. 575.  
 convolutum Brid. I. 590. II. 629.  
 corniculatum Schwägr. I. 584.  
 crispipilum Tayl. I. 808.  
 crispulum Bruch. I. 571.  
 cylindricum C. Müll. I. 586. II. 627.  
 cylindricum Hdw. I. 441.  
 densifolium Mitten. II. 627.  
 dicranoides Schimp. II. 613.  
 difficile Duby. I. 452.  
 distans Hmp. I. 582.  
 ellipticum Hook. et Tayl. I. 800.  
 elongatum Ehrh. I. 807.  
 epunctatum C. Müll. I. 579.  
 ericoides Schw. I. 807.  
 exasperatum Schw. I. 385.  
 fasciculare Hdw. I. 809.  
 flavicans C. Müll. I. 591. II. 629.

## TRICHOSTOMUM.

- flavipes* Steud. II. 651.  
*flavovirens* Bruch. I. 585.  
*flexicaule* Br. I. 449.  
*flexifolium* Sm. I. 576. II. 625.  
*flexipes* Br. et Sch. I. 584.  
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*hypnoides* Willd. I. 806.  
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*inclinatum* Schimp. II. 629.  
*incurvum* Hsch. I. 798.  
*Indicum* Schwäg. I. 568.  
*Indicum* Willd. I. 769.  
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*squarrosum* A. Br. II. 627.  
*squarrosum* Brid. I. 579.  
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*crispula* Brid. I. 714.  
*curvifolia* Brid. I. 715.  
*Drummondii* Hmp. I. 712.  
*fulva* Brid. I. 718.  
*Ludwigii* Brid. I. 714.  
*nigricans* Brid. I. 692.  
*phyllantha* Brid. I. 717.  
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*macrocarpa* Hsch. I. 337.

*Meyeniana* Hmp. I. 296.

*mutabilis* Hdw. I. 335.

*nutans* Hdw. Brid. I. 335.

*pendula* Brid. I. 335.

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*anomala* Roth. I. 694.

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*Capensis* Spreng. I. 561.

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*crispata* Brid. I. 650.

*crispata* C. Müll. I. 662.

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*curvicaulis* Brid. I. 651.

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*cylindrica* Bruch. I. 586.

*Cyrnaea* Brid. I. 651.

*densifolia* Wils. I. 652.

*denticulata* Brid. I. 650.

*diaphana* Roth. I. 695.

*Dicksoni* Brid. II. 585.

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*elongata* Hook. I. 235.

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*exigua* Schw. I. 444.

*falcata* Nees et Hsch. II. 585.

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*fastigiata* Nees et Hsch. I. 343.

*flaccida* Harv. I. 548.

*flexuosa* Bruch. I. 371.

*Forsteri* Brid. I. 667.

*fugax* Hdw. I. 649.

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*gymnostomoides* Br. I. 652.

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*humilis* Sehm. I. 651.

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*incurva* Schw. I. 770.

*involuta* Brid. I. 662.

*ithyphylla* Ehrh. I. 694. 708.

*Jamesoni* Tayl. II. 549.

*Kunzeana* C. Müll. I. 656.

*lanceolata* Hook. et Tayl. I. 549.

*latifolia* Schw. I. 550.

*linearifolia* Hsch. II. 604.

*longipes* Sommerf. I. 427.

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*macrorrhyncha* Mont. I. 423.

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*Martiana* Hsch. I. 509.

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*microstoma* Br. I. 652.  
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*pumila* Brid. I. 649.  
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*radicans* Hdw. I. 123.  
*recurvata* Brid. I. 420.  
*recurvirostra* Brid. I. 582.  
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*striata* Kaulf. I. 649.  
*striata* Roth. I. 708.  
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*tenuirostris* H. et T. II. 627.  
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*tenuis* C. Müll. I. 660.  
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