

Nº 1.

Rio Negro

Peru.

Rio Negro.

Polygala... having the habit of our own *Polygonellas*
- Sand hills rare.

Malvaceae... *Modiola reptans*, St. H. - Potentilliform;
no external calyx; flos red.

" " " prostrate; ext. calyx 2-phyll; flos large.

- cf. *Palava*, Lam. 577. 2.

Melochia... flos very small.

Cxalis bipartita, St. Hil? ... leaves deeply cleft.
- as if 2 horned; rare.

Erodium geoides, St. H.? ... flowers small, sand hills.

Zygophyllum... a common bush on the campos
- *Larrea*, Cav.

Raphanus? ... flos yellow sea coast; perhaps
- introduced.

Lepidium... Sand-hills; possibly introduced.

Chiranthus? ... vestiges observed by Mr. B. but
- specimens lost.

Melilotus... purple flos & smooth hamate pods
- Sand hills.

" " " " " ©; pods very small, 1-seeded.

Rio Negro.

- Mimosaceae ... long strap shaped pod; flos pale,
with tinge of pink
" " " " prim. multijug; campos; Mr B.
" " " " flos glob. yellow; stem low with-
Astragalus ... sand-hills. (- spines; white.
Hedysarea Adesmia ... Habit of genista; spring;
- flos yellow ^{small} bipinnate leaves
Adesmia ... herbaceous; flos yellow; sand-hills.
Legum. ... large shrub; thick, fleshy pod;
- leaves decid; common.
Medicago ... crenate pods & small leaves.
Lathyrus? ... but style smooth; flos light blue;
- whole plant sericeous.
Vicia? ... small sp; river banks.
Legum. ... moniliform. & succa pod; purple fls
- habit of Galega; common.
" " " " flos yellow papilion; leaves -
- pinnate rare; hard ^{seed} pods of
Mimosaceae.
Margarocarpus ... common; sand hills; ge.

Rio Negro.

- Celastrin? ... spiny; leaves ovate; entire; pointed
" ? ... verticill; crenate leaves. (- shrub.
- like *Enonymus*; shrub
" ? ... shrub; obovate. entire larger leaves
- base succed; seed hard like fruit
- Umbell.
Condalia? ... spiny shrub; alt. ~~obov.~~ entire -
- leaves; drupe oblong; 5 and; cal 5 -
- ptyll. decid.
Lythrum ... very minute flos; river banks.
Anychia? ... axillary flos.
" ^{smaller more upright}
Portulacca ... large purple flos; sand hills.
*
Cnottura ~~smaller upright~~ ... large yell. flos turning reddish
- in facing. Sand hills -
Tillaa ... muddy shores of river; specimens
- lost; without 2^d exami;
Opuntia ... normal, borders of campos,
" ... ovoid joints.
" ... small cylindrical joints,
borders of campos

Rio Negro.

Cereus... melocactiform; sometimes -
- agglomerated; sand hills.

Mamillaria?... buried in soil to the upper-
- surface; borders of campos

Apium?... river banks.

Eryngium... stem nearly naked; capit-
- cylind

" " ... prostrate; river banks.

Hydrocotyle... river banks.

" " ... larger; river banks specimen
- lost.

Umbellif. Matricaria... leaves tri-spinosa;
- caps compressed; campos.

Daucus... sand hills.

Galium... rigid; 3-4 inches high; sand hills

Myrtac... low shrub; leaves opp; lin
- hirsute; veins diff.

Grindelia... small heads - sand hills

" " ... large coarse plant - sand
- hills - glutinous.

Rio Negro.

- Comp ... resembling brachy sis; flos cream
- Centaura? ... Sand hills. (- coloured)
- Cynara cardunculus? ... not over 3 ft high
- sand hills; introduced
- Gnaphaloid ... like cap. Heliskig; campos
- same Buen. Ayres
- Senecio? ... hoary; simple leaves.
- " ? ... green; succulent leaves.
- Gnaphalium ... Sand hills.
- " ... Capit; contracted at summit
Capit aggregated - Sand hills
- Coreopsoid ... no ray; involucre int. monophyll.
- Gnaphalium ... Capit aggregated.
- Coreopsoid ... 2 sp? - glaucous.
- Bigelovia? ... branches dense upright; flos
- terminate
- " ... rigid almost aphyll; used for
- brooms.
- Comp ... small; habit of preceding.
- Ambrosia ... Sand hills.

Rio Negro.

- Baccharis ... tripartita; campos.
- " ... normal; only 3 inch high.
- " ... larger; (if prior)
- Comp ... large; coarse branch; habit of
- Genista
- Erigeron? ... somewhat like Canadense.
- " ... but ray yellow; flo large.
- Storia ... leaves lin. entire.
- Comp ... procumbent. coarse. ray small.
- Short p^{recept} palia on
- Torehus ... uncinat leaves, possibly introduced
- Souchoia ... smooth entire leaves. flos yellow
- " ... white flos
- Amellus ... habit of diffusus; campos.
- " ... lin curved leaves; campos.
- Comp ... small. lin leaved, one term flor.
- " ... showy. capit 5 fld. ray varying
- from pink to white. campos
- " ... habit of Gorteria; leaves serrate
- campos

Rio Negro.

Galaxoid -- recip palae. akm 2 membran.
- ams sand hills.

Solidago ----- sand hills.

Urtica ----- habit of Eclipta. banks of river

Comp ----- resembling Vernonia: marshes &c
- same Buenos Ayres

Comp ----- shrub: pungent: lin leaves: flos yell
- scarious: like Cape Delchig. Campos &c

Chelopapoid ----- small white flos: river bank

Comp ----- recip palae -
..... leaf margined white prickles
- sand hills &c

Anthemis cotula ----- introduced.

Xanthium Strumarium ----- probably introd

" Spinosum ----- introduced

Comp ----- leaves finely pectinated.

Calycerne? ----- sea coast: cal. monophyll -

..... monophyll. invol. fol pinnatisect

Lycium ----- spiny shrub: stem & branch wht

..... perhaps 2 sps: pubesc & coarser.

Rio Negro.

Solanum ----- stamens unequal: style incurved

Crossa ----- flos pale pink styles 2

Thymus ----- scint like coarse shrub leaves like
- granules: campos

Asclepias ----- campos.

Verbena ----- flos small: dissected leaf.

Laparia ----- small.

Gerardia ----- habit like gratiola: river
- bank

Samolus ----- river bank.

Gilia? ----- leaves dissect: calyx awned

Capparioid ----- habit preceding: calyx 2 celled

Heliotropium courassavicum? -

Limosella ----- like tenuifolia: specimens
- mostly lost: muddy shores
of river

Statice limosurium? ----- maritima.

..... flower branches more upright:
- leaves narrower.

Amaranthus ----- appar. peculiar sps.

Rio Negro.

- Euphorbia ... normal: upright: sand hills
- " ... prostrate like maculata.
- Plantago ... o: lin leaf: spikes wooly: sand hills
- " ... o: lin leaf: sand hills.
- " ... leaf. lanc. lin: spikes wooly
- " ... leaf. lance.
- " ... large sp: lanceo leaf: marshes
- " ... resembling maritima. salt marsh
- Suaeda ... resembling S. prostrata.
- Chenopodium ... procumbent: small dissected leaves
- Atriplex ... procumbent. hoary small leaved
- " ... upright. hoary. involucre ^{entire}
- Chenop ... resembling Atriplex. branching: leafy - involucre: perpend Bluff.
- " ... 5 gyn. succ single: cal 5 phyll shrub succul. lin leafy flos axill
- Galioisida ... perenn. stem upright and woody

Rio Negro

- Polygonum avicular? ... probably introduced
- Rumex ... borders of marsh
- Salix leaves linear serrated like Askans
- Ephedra ... sand hills.
- Habranthus ... 3 flo'd. large - sand hills
- " ... 1 flo'd. red and yellow campos
- Juncus ... like maritimus: ^{salt marshes} articulated
- " ... like acuminatus ^{articulated} river banks.
- Ornithogalum? ... river banks: flos white
- Sisyrinchium ... river banks.
- Arctusoid ... sand hills.
- Tryglochium ... marshes.
- Carex ... salt marshes.
- " ... perhaps a 2 species
- Scirpus ... like triguetor: marshes.
- " ... like lacustris: marshes.
- Isoplepis ... small. lateral spike muddy - shores of riv.
- Setaria ... perhaps introduced, campos
- Megastachya ... perhaps introduced

Rio Negro.

- Graminoid like slender clunchnus: campos
Donax? ... white panicle like a plume,
border in marshes
Andropogon ... normal, campos.
Avena like cultivated: campos & sand
Agrostis? ... calyces only left.
Urolophus? ... like spicata: maritime.
" ... perhaps a 2 sp. 1 or 2 fld.
Ceratocloa ... margin of campos.
Spartina ... normal, maritime.
" ... resembling S. glabra - salt marsh
Panicum? ... woody fls: maritime: Buen Ayres
Melica? ... margin fls white: maritime.
Psamma? ... or resembling in form and habit,
" ... habit of Anthoxanthum: Campos
Lolium ... sand hills; perhaps introduced.
Apogonia ... like a ciliata Nut.: campos &c
Elymus ... sand hills &c.
Agropyrum ... campos.
Polypogon ... true; campos,
" ... American form: campos.

Rio Negro.

- Aristida ... long awns; campos &c.
Phragmites ... marshes; no specimen obt.
Azolla ... floating on borders of river.
Panicum? ... stems and branches of a shrub.
Amaranthus ... stipule a sp; now referred to
Paronychia root large woody
Sium ... sand hills &c.
Herb ... habit Epacris; sand hills.
Shrub ... small 3-pointed leaves.

Peru.

Clematis --- like *virginica* abundant from Yanga to
reunna beyond Yasco: foliol mostly entire: cordate.

Aronia chucuroya --- fol: round ovate cult. native
in ravines to the Northward (Anatthun)

Argemone --- yellow flos: Callao to Yanga, capsule prickly
- on upland near Yanga.

Arabis? --- fol $\frac{3}{4}$ pinn. amplex. denticul., calyx decid.
sepals obtuse, mountain ridge below Yanga.

Monna pterocarpa - R & P short linear leaves and
winged fruit: 2 to 3 ft high sparse
leaves & branching mountain ridge
below Yanga and Lima.
pubescent winged fruit: broad leaves,
below Yasco.

Sida --- near *spinosa* - suffrut. 2 ft, fol cuneat.
at base crenate - Callao - Yanga

--- 1 ft. segments of cord irreg rotate, suffrut.
common in river bed at Lima.

--- broad cordate leaves - 3 to 4 ft. river
- bed below Lima.

Peru.

Malvac... carpals, cal 5-6, naked, flos
small purple; stamens in long
-column yellow; fol broad; very
- common - Lima -

Anoda? - but small white flos; carpals about
10; fol. - - - Callao. rare.

Malva Linensis... small blue flos caticul
with linear segments; fol
3-5 lobed, serrate; Lima
Caballeros and river bed.

Gossypium... fol 5 lobed; pubesc. below. thick
stemmed shrub; 15ft; above Yanga
and only seen native?

Abutilon... tomentose carpals about 8 acuminate
fol cordate; Yaso &

... closely tomentose; carpals 11 acuminate
flos axill. glomerate fol. broad
ovate; petiolate - Yaso &

Bombac... 30ft trunk swelling in the middle
with a few short spines - flos white
garden - probably from North or beyond Andes

Peru.

Waltheria... densely toment - weak spreading many
stemmed shrub; 1 to 4 ft. Lima &
Callao - common in dry places.

... or Sida - broad ovate petiolate - close
toment - flos axill - crowded Yaso (of Obrajillo)

Byttneria... stem prickly - 3 to 6 ft. Lima to Yaso

Trinifitta... broad toment leaves 3 to 5 - feet - between
Yanga & Yaso rather rare.

Malpigia armenaca? - garden at Lima tree 30ft.
- spreading prob from North
or East of mountains

Cardiospermum... flos white rather large
procumbent. multicaul -
North of Amancaes (of opp from Obrajillo)

Dodonaea... shrub 3 ft above Yaso on only

Cissus compressicaulis - pubescent, Lima but
most abundant at Callao

Geranium... stems thick woody root
fol reniform incised - pilose no fls
top St Lorenzo & Amancus.

Peru.

Tropocolum - fol integ, puberul long spur floo
large about canals at Lima &
Callao probably not native.

Oralis - - - - - floo pale purple umbellate root
tuberous. Amancaes.

- - - - - small obcordate leaves - yellow floo (Yanga)
tuberous root: cal lacin broad at base
floo yellow red at first Amancaes &
of Banos

Zygophyllea - - - - - appressed to ground
small floo & carpels

upland near Yanga
Colletia? - - - - - green stems and opposite
spines fol integ - no flor
below Yaso rather rare

Schinus molle - - - - - abundant from Yanga
to Yaso also at Lima
10 to 20 feet.

Crotalaria - - - - - trifoliate - yellow floo,
pods hairy, river bed near
Callao

Peru

Spartium-juncin - - - - - Naturalized or abundantly
from Callao to Obrajillo,
and it is said all over Peru
pods hairy

Desmodium - - - - - large purple flower
Callao.

- - - - - softly pubescent - flor
very small - green and
purple, pod three jointed
Callao (B)

- - - - - more hairy Lima.

Vicia - - - - - 1 ft. small blue flor, among
grass in rather dry situations
near Callao rare.

Dolichos glycinoides? - - - - - yellow flor like *Antes* -
- his: pods hairy,
- abundant among
- grasses and bushes
- at Callao also at
- Lima

Peru.

Phaseolus Truxillensis? - large rose coloured flos -
near coast at Callao -
pods compressed -
foliol broad.

----- *vestitus* - Mathews - foliol obovate undulate,
pods pubescent, flos
blackish purple, Callao
----- perhaps 2 species - peduncles
very long, foliol smoothish
subvoluma $\frac{7}{8}$ inch, flos same
river bed at Lima

Cassia ----- near Chamachista -
----- near Marglandica Callao.
pubescent all over and
pods. 6 to 8 fr. below Yaso
rare

Indigofera ----- branching shrub 4 to 6 feet
flos red; river bed at Callao

Peru.

Poinciana spinosa - Forst. - "Lima" F 39) shrub
with a forest habit
10 to 20 feet
Lima to Yaso.

Bauhinia ----- shrub 10 feet, short spines
no flos, one only near house
3 miles above Lima perhaps
not native here -

Leg ----- shrub 15 ft. panicles of yellow
flos like cassia. one only
between Yanga and Yaso

Pisacia? ----- procumbent and viscos
slender stems, flos yell,
pods compressed
sistose, calyx equal, fol
terminate pinnate
6 yuca. - Mt ridge
near Yanga

Acacia pro-prostrate: flos yell: pods not
articulate - Callao.

Peru.

Acacia - 12 ft. habit of a spreading tree, flos yellow, pods pubescent, Callao and Lima - long thorny branching shrub 3 to 5 feet, flos purple and ornamental. fol conjugate bijugis; river bed near Callao

? garden weed herb 2 ft. pods fasciculati linear, flos inconspicuous Lima garden

Enga - Pucry, cult. fol abrupta pinnat, petiole winged, tree 40 ft probably from east of mountains

Jussiaea - 5 petals - aquatic, same as Chili

" large bls 10 ft. hairs 4 " abundant in wet ground - Callao
" 3 to 6 ft flos smaller caps more elongated - Lima & Callao. com

Oenothera prostrata, - R.P. - prostrate, caps sessile, fol dentat, Amancaes Mountains

o: caps angled atten at base short peduncle - north of Amancaes - rare

Peru.

Lythrum maritimum - K. flos median purple like Chili - Callao and river bed at Lima.

Ammania - fol amplex, auriculate, river bed near Callao (B)

Paspiflora - pubesc, glutinous calyx pinnatifid. Callao and Lima. common.

small flos - fol - trifid. Callao & Lima

Boasa? - young shoots only. Amancaes mts fol broad dentate flos large - cream colour, near Yanga also Lima

Melocactus - Yanga and half way to Yaso

Cereus - - - - - bristly 2 to 3 ft branches upright about 2 inches diameter, flos yellowish green, tube median; upland near Lima.

* Malvestrum thyrsoflora 2 to 4 ft. Yaso -

Sesuvium - sepals flos. near Callao

Peru.

Cereus - - - - - procumbent fasciolate branches
about 1 inch diameter, flor
scarlet tube rather long,
Common at Lima

bristly (agate)

Cereus - - - - - less bristly than 1st many
angled stem. 3 in diam
3 feet high upland
near Yanga

Cereus - - - - - somewhat like Chilean
about 10 or 12 angled,
4 inch diameter when
upright 4 to 5 ft high but
often very long and pend
common below Yaso

Cereus? - - - - - woolly with white spines
stem simple or with few
branches. 3 to 6 feet high
inflorescence secund.
Yanga to Yaso.

Peru.

Opuntia? - - - - - 6 to 8 inches. clustered joints
oval easily separating no
flos seen; between Yanga
and Yaso.

? - - - - - same habit and size,
flos bright yellow and
lasting several days, tube
short. North Eastern base
Amancaes mts. rare. (agate)

? - - - - - 1 to 2 ft. upright. sometimes
branching at summit, showing
scarlet flos. between Yanga
and Yaso.

? - - - - - upright branching 5 to 10 ft.
generally 4 angled, sometimes
6. 8 & 10 inches diameter, flowers
small, purple, on angles;
near Calleros to Yaso -

Hydrocotyle multiflora... almost sub aquatic
Callao -

like ramunculoides. canal in Lima

Peru.

Calandrinia? ----- fol op. fleshy linear;
no flowers seen Loreuaso

Talinum ----- fol altm lanceolate obtuse,
3 or 4 inches high, below
Yaso-

Galium? ----- fruit orange. hairy calyx
very large fol, 2 inches.
Callao.

----- fol 4 ins, smaller fol linear,
Amancaes mountains

Apermagace! fol lanceolate ovate attenuate at base, flos congest - Callao.

Valeriana fol altm pinnatisect, lobes dentate. 1 ft. Amancaes.

Phalacrocalatifolia ----- 3? Manga paki "Feuille
3 1/2 - 1 ft flos blue. - Callao
and Lima -

Fluveria contrarva ----- 1 to 2 ft high, herb
common near the
coast of Lima and
Callao -

Notholites? ----- shrub 1 to 2 ft, flos
corymb: whitish;
repland at Lima -

Peru.

Mikania ----- Smooth: Callao to Yaso
common capit 3 to 5 flos.
stender

Tessaria legitima ----- abundant near coast
Compositae ----- habit of *Laparia*, capit
purple. no rays, invol,
simple about 8 leaves.
fol op entire obtuse,
common near the
sea beach

Piqueria artemisioides ----- capit 5 to 6 fl.
invol simple, habit
of *Solidago*, fol opp
dentate, Amancaes
mountains

----- perhaps 2' sp with entire obtuse
leaves, between Yanga & Yaso -

Eupatorioid ----- fol 1/4 inch, toothed
like *backaris*. sometimes
roundish, *Solidago* habit
invol 2 to 3 serial papp about 4 rays - Yanga + Yaso

Peru.

Baccharis? "Chilca" Feuill 37. shrub
6 to 8 ft. few branches,
infloresc. term. corym:
river bed Lima to mon

Pluchea! suffrutic 2 to 3 ft, branching
fol 3 inch broad, dentate,
perennial toment, invol
3 serial: between Yanga
and yaso.

Erigeron. like canadense but larger,
flos. fol lin. lanceol: ballao:
pubesc. fol numerous integer,
atten at base 1/2 inch or top of San
Lorenzo and Amancaes: flos
small white

Tripolium. near subulatum: short
rays: ballao and Lima

Comp. shrub 2 to 4 feet, invol
simple: about 5 leaved,
rays very few, short yellow
corymb: fol opp entire. Amancaes

Peru.

Comp. perhaps 2 sp. toment: Yanga
Ambrosia Peruviana? Small flos, Lima
and ballao

Melampodium. 2 ft. branching, fields
near Puchecamae

Eclipta. wet places. near Lima & ballao.

Bidens. flos yellow, no rays, herbell,
fol infer, triparted: ballao:

Abadia? fol simple, ovate some-
times triparted, rays
white. Lima: cf prov.

Helioopsis? 1 to 2 ft. fol opp, moist places
Lima.

Spilanthes. Subaquatic. Lima

Tagetes? Garden rubbish at Lima
strong scented branching
2 to 3 ft.

Galensoga. Lima.

Peru.

Encelia canescens. --- Shrub 3 to 5 feet
common near
the coast.

--- narrower, longer leaves
--- very close pubescence Yanga
to near Obrajillo

--- *Lanata* --- lanate white upland
near Yanga.

Senecioia --- fol bipinnatif. succul
no flos. San Lorenzo

Mayera maritima --- subaquatic 1 to 2 ft.
herb and tender,
invol 4 leaved;
abundant in fresh
water near Callao

Gnaphalium --- lanate 1 to 2 ft. flos
congest - Callao
and Obrajillo

Peru.

Gnaphalium --- 3 to 8 in. upright, fol undul,
common on Amancaes.

--- 1 to 2 ft fol amplex. broad
at base tapering at point;
river bed at Lima

Senecioia? --- fol bipinnatif. scandent,
habit of mikania; coral & fid,
ornamental, flos inclining
to orange; back of Bella
Vista rare.

Comp? --- fol alternate: broad rugose
something like salvia; no flos
top of San Lorenzo (Mr. Case)

Lactuceae --- fol lance entire: involucre
simple about 10 leaved
smooth: pappus pedicellate
flos white Callao banks
of ditches

Sanolus floribundus K? --- Callao & Lima

Peru.

- Mangilla fuscicarpa* --- an ardisiac, abundant near the coast.
- Achras Tucuma* --- cult. native in ravines to northward of Matthews
- Cynanchoid* --- long prostrate vine, fruit woolly fol lanc ovate; rimbud at Lima and Callao
- Tecoma* --- 5 to 20 ft. rose leaved, Yanga to beyond Yaso common
- Crepis Truxillensis* --- common on sea beach
- Evolvulus* --- procumbent white flos, abundant near Callao
- procumbent blue flos Amancaes mountains.
- white soft pubescence
- Convolvulus* --- prostrate multicaul fol repand dentate secumb, peduncles twisted up to leaf. Upland by Yanga

Peru.

- Convolvulus* --- prostrate multicaul flos secund. white, coral lacin acuminate, fol plicate; Bella Vista and Amancaes mts
- Hairy calyx, fol cordate petiolate, Lima.
- an avenis introduced Lima
- Wegandia virens* --- entire habit of Hydrophyllae, covered with stinging hairs: upright coarse herb 10 to 15 ft Yaso and Lima rare
- Cordia rotundifolia* --- shrub 10 to 15 feet above Yanga
- Barrovia?* --- capic shrub 3 to 5 ft. between Yanga and Yaso.

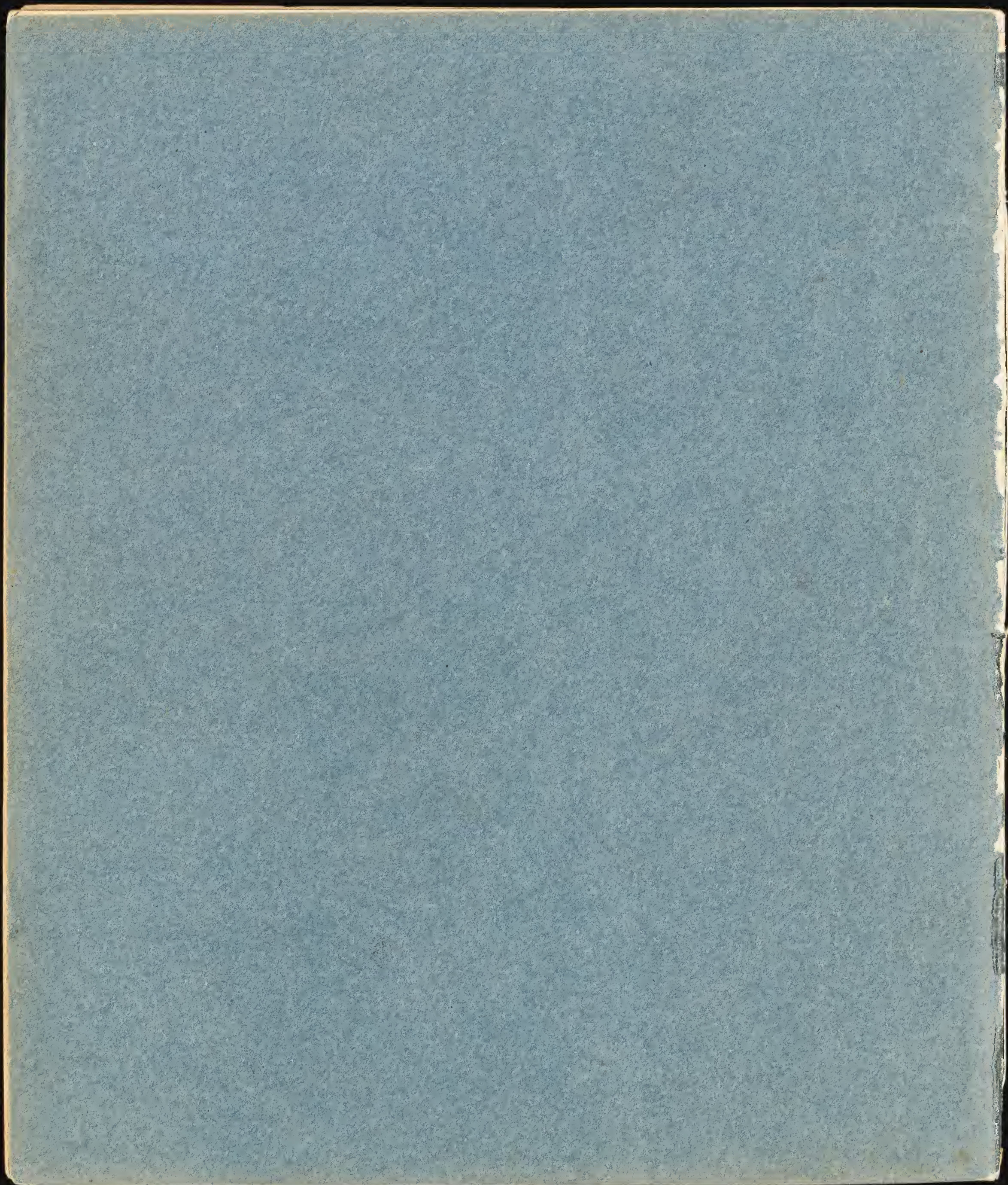
Peru:

Tiquilia dichotoma --- prostrate, upland
between Caballeros
and Yanga - an Nolan?

Heliotropium --- near Curassuvicum
glauca: sea beach
--- etc to 12 inch ovate plicate
strigose leaves, white
flos common near
Callao

--- blue flos, Amancaes
below Obrajillo, fol
broad lance sub-
serrate, flos rather large
--- shrub 2 to 3 feet flowers
white, fol ovate pubes
Amancaes mts

--- strigose, spikes solitary
or by 2s - flos small, betw
Yanga and Yaso.



No. 2.

Peru

P.VII.

- Heliotropium* strigose, sessile, lanceolate
leaves, once on hill beyond
Amancaes —
- Nolanac?* spiny shrub 6 to 8 ft Lycium
habit. smooth glaucous entire
leaves, 5 long calyx teeth, carpels
4 between Yungas & Yaso —
- Nolana prostrata* petioles ciliate, coral blue
with darker spot in centre
Sea beach —
- petiole not ciliate, fol narrow
calyx sometimes 2 parted,
top of Amancaes mts —
- Solanac?* rank procumbent herb, datura
leaf calyx 5 dent, large
blue flos, near Caballeros —
- Cestrum auriculatum?* shrub 8 to 10 ft, common
at Callao and Lima
on caa Obrajillo

Lycium aggregatum - multicaul. shrub 5 to 12 ft. flos white. Lima
 ----- genuine sp short spines, fol. slightly hairy, Lima
Nicotiana ----- fol. flos reddish coral unequal glutinous, Lima to Yanga.
 ----- paniculata R. & D. slightly canesc, long slender flos, leaf large like cabbage Lima to cordilleras
Neurembergia ----- blue flos, top of Amancas anca - Obrajillo.
Datura Abramoum ----- naturalized apparently
Nicanoria physaloides ----- common in waste grounds about Lima - no specimens
Physalis ----- smooth, fol lance dentate, flos small, Callao.
 ----- softly pubescent 3 to 5 ft. river bed at Lima
Lycopersicon ----- close pubescence, fruit smooth, Callao

Lycopersicon ----- fruit pubescent, upland at Lima.
 ----- pubescent, flos solitary. - if precede Yanga -
Solanum ----- like nigrum. Callao.
Carica ----- trunk 1 ft. diameter, with a few coarse branches, 6 to 10 ft high, fol entire white beneath, ravines at Amancas mts
 (?)
Peltodon ----- glutinous pubesc, 1 to 2 ft. - Yaso with Wigandia, rare.
Elytis? ----- if spicata, pubescent fol crenate dentate, 4 to 6 ft. - river bed at Lima
Verbena ----- fol crenate dentate - 2 to 4 ft. common at Callao & Lima
Leaf
Lepania canescens ----- abundant near Callao.
Lippia ----- weak shrub 1 to 2 ft. habit of Lantana, fol papill hirsute, Callao

- Santania* --- capit 3 coloured, shrub
6 to 10 ft. densely hirsute,
one of the finest species.
river bed at Lima
common at Callao
- Premna* --- naturalised waste
ground as about Lima
- Ruellia* --- small white flos,
ridge north of
Amancaes mts
or Justicia, pubescent
glutinous long scarlet
flos: upland near
Yanga
- Justicia repens* R. & P. --- long red flos, long
canescent leaves,
upland near Lima
- Herpestis* --- Callao of Baños ---
Capraria peruviana --- if by flora, river bed
at Lima
- Scoparia dulcis* R. & P. --- river, bed at Lima.
gen* --- Antirrhinae, scarlet flos
gibbous below at base,
ornamental. Lima
and Caballeros. ---
- Buddleja occidentalis* --- shrub 8 to 12 ft Lima
an ead near Obrajillo ---
- Calceolaria pinnata* --- wet places near
Lima
- Plantago* --- an *P. major* introduced?
Caballeros. no speci
(mens)
- Plumbago* --- fol somewhat pan-
duriform. amplex
at base, flos blue
Amancaes mountains
of Sp. --- Obrajillo
opposite. Broad curled
uncano. pubescent
leaves, no flos. sea
shore of San Lorenzo
- Nyctagin?* ---

Boerhaavia ----- pubescent small flos decumbent,
Lima of hirsuta R. & P. non al
secandens ----- flos purple pink long,
stems long weak branches
spreading among the
bushes to the height
of 6 ft or more,
Lima to Yaso

Mirabilis jalapa ----- naturalised in
waste grounds
about Lima

Calymenia ----- fol opp. plicate entire
curled pointed glutin-
ous, stem hairy
upland near
Yanga
----- perhaps 2 species
smaller, fruit more
obtus, leaves prostr
Yanga

Gomphrena [?] ----- fol obovate, Callao
----- corol glaucous hairy
flos more conspicuous.
Yanga

Salicornia Peruviana ----- abundant at Callao
forming beds -

Batis ----- abundant at Callao
n.g. ----- shrub 1 ft. fol short
linear, succul and

very tender, flos axill,
upland at Lima
and coast at San
Lorenzo

Chenopodium ----- like rubrum but leaves
crowded, top of the
Amarcaes mts
----- canescent broad
leaves, upland at
Lima -

Rumex - - - - - introduced? calyx
nearly entire 3 grains
Callao

Polygonum - - - - - like mite or persecaria,
wet places Callao

Begonia - - - - - red stems flowers
expand before leaves,
Amancaes mts -
leaves first appearing
misanthra like, fls
not seen - Amancaes
mountains

Picramnia communis - - - - - common about
Lima and Callao
probably introduced

Carotum - - - - - shrub 2 to 3 feet
narrower leaf than
"Obraj:" between
Yanga and Yaso

n.g. - - - - - wrens - - - - - habit of Jatropha, thick
stemmed shrub with
few large branches,
from 1 to 4 feet high,
broad leaves with
hairs like prickles -
upland between
Yanga and Yaso

Euphorbia - - - - - hairy, habit of Hyper-
icoides 1 foot in height,
Lima & Callao common
like maculata,
upland near Yanga

Euphorbia - - - - - shrub 3 to 5 ft, foliage
ovate, serrate petiolate,
calyx 5 toothed -
cymes axillary pedunc-
le - above Yaso
with Dodonea
very rare. (B)

Piperomia Scutellifolia R. & P. — Amancaes & Baños
inequalifolia — Amancaes mts and
 Obrajillo
Salix Humboldtiana — Callao to Obrajillo,
 abundant planted
 and apparently
 native also a
 variety with "ramis
 strictis" grows to
 30 or 50 feet in height
 and stem 2 feet
 in diameter
 Shrub — dioic, frs 3 serrated
 male flo panicul
 very small flo,
 thick stems few
 branches, from 3
 to 5 ft in height,
 upland in Yaso
 no leaves —

Senna — like gibba very convex
 below, seen in flower,
 it has 2 stamens abundant
 near Callao —
Pistia — only at Callao.
Ruppia — Saline pools on
 Callao point
Lamichellia — Canals at Lima
Potamogeton striatum R. & P. — Canal at Callao.
Halenaria? — an congen fl. quin
 giseta, 1 to 2 feet fls
 greenish, wet ground
 near Callao
Canna — scarlet fls wet places,
 near Lima perhaps
 introduced
~~*Isa*~~ ^{more} Amancaes — abundant on
 Amancaes mts
Ignor — smaller bulb and
 appar, more slender,
 leaves lanceolate elongate, fls not seen.

Alstromeria ----- fol lanceolate acute,
flos not seen,
Amancaes mts
----- fol rather obtuse
spathulate atten
at base, flos not
seen, Lima -----

Aloe ----- 1 to 2 feet, growing
in small beds, flos

Agave? ----- yellow, Yaso
or yucca, leaves
2 feet or more: thick
full of fibres &
serrulate on the
margin, flower
stem slender,
from 10 to 20 feet
above Yaso

Commelina ----- 3 and 2 yrs,
sheaths ciliate on margin,
Callao

Pitcairnia ferruginea ----- scape panicled
from 3 to 6 feet: old
stems bearing gum,
fol utrinque virid
marginal spines
erect, forming
beds on Amancaes
mountains and the

Tillandsia purpurea R. & P. ----- ridge North of the
spikes, 8 or 10 flowered,
from 3 to 6 in terminal
clusters, upland
at Lima from
6 to 10 inches,
also at Caballeros

----- larger spikes, about
5 fld about 12; 1 to 2 ft.
San Lorenzo only
----- woolly curled
leaves pale flos
forming extensive
beds, upland Caballeros

Tillandsia purpurea — caballeros also in beds
 broad base to leaf.

Commelina s. — — — — — 3 and 2 gyn sheaths
 ciliate on margin
 Callao

— — — — — pubesc. gl. rather
 large, flos not seen
 Top of San Lorenzo
 Mr base.

Callicoca — — — — — flos very small, spathe
 perfectly smooth
 common at Lima
 and Callao —

Typha Truxillensis — — — — — abundant at Callao

Cyperus — — — — — of articulatus, no
 leaves, stem artic.
 4 to 6 feet, subaquatic
 Callao and Lima

Cyperus — — — — — of articulatus no leaves stem articulated —
 3 to 4 inches; spikelets 2 or 3, sessile — Callao

— — — — — 1 foot umbel comp; spikelets about 12 fld Callao

— — — — — near dentatus; 1 to 4 ft; spikelets 18 to 24 fld Callao

Pyllingia — — — — — border of canals Lima.

Eleocharis — — — — — artic; 4 to 6 ft wet places Lima also Callao

— — — — — like capitatus; 8 inch. Callao —

Fimbristylis — — — — — 1 to 2 ft, short, leaves Callao — Submarine

Scirpus — — — — — like locustis. but triquet. upright 12 ft forms
 dense beds. spikelets small inflorescence near
 terminal. mouth of Rimac —

— — — — — same habit. cylind. but small diam
 trailing through bushes and forming tangled
 masses. 6 to 12 feet — 1 to 6 sessile spikelets. Callao

— — — — — perhaps not different, but stem rather
 thicker, & trigonous, also common in wet
 places near Callao.

— — — — — trailing through bushes — stem 6 to 12 feet
 though hardly thicker than knitting
 needle. flos not seen Lima.

Torghum ----- small flos canals near Callao an ead
 Obrajillo? habit of *Panicum* -
Panicum ----- like *virgatum*: spreading panicle - wet
 grounds: 3 to 5 feet. - Lima -
Chloris radiata ----- river bed below Lima -
Saccharum ----- 3 to 5 ft slender river bed at Lima
Rotboella ----- Lima. -
Leptochloa ----- Lima. -
Poa? ciliaris ----- river bed below Lima
 ? *Thalassica R* - congener of *Uniola spicata* - Sea coast
Eragrostis ----- like *pilosa* but larger, river bed
 near Callao -
Agrostis ----- coarctate panic. glumes long accu-
 -uminate - Callao - an ead Lima.
 ----- habit of *Uniola spicata*; Callao
 maritime -
 ? ----- of *Indica* - Sea beach
Cynodon ----- sea beach -

Cynodon ----- an ead top of Amancaes -
Ceresia ----- Callao -
Pennisetum ----- of *conchroides* - Callao -
Andropogon ----- 18 inches spikes hairy - Callao -
Paspalum ----- 2 long spikes, small flos, Callao
 and Lima -
 ----- 6 ft fol 1 inch broad, 4 rows of flos,
 Callao -
 ----- 1 ft, pubescent - broad leaves - Callao
 ----- spikes 6 to 12 in a raceme of 6 inches -
 terminal ones not distinct, flos pointed
 Callao -
 ----- near *distichum*, tufts of hairs at top
 of sheath. abundant back of sea
 beach -
Dryoxia ----- fol serrated on margin, 6 to 10 feet,
 forming brakes on road to Lima -
 ----- larger, sp. 10 to 20 feet, flos large
 and more acuminate. cord base
 with long hairs, forms an extensive
 brake at mouth of Pimac -

Bambusa ----- garden at Lima not belonging to these parts
Phragmites ----- like communis 6 to 12 feet, forms a
 brake on the road to Lima
 ----- no flos. larger, 10 to 20 feet, wet ground
 Lima to Yaso canes used for building
 in the interior as those of *Dyuxia*
 at Callao. -----

Equisetum ----- upright 5 to 9 feet, common among
 bushes in wet grounds - Callao & Lima
 ----- procumbent second branch,
 habit of scirpoid, but 18 inches -----

Acrosticum ----- *Gymnogramma* - 1 to 5 feet, segments
 triparted. lin. lance, whitish below,
 common at Lima & Callao -----

Aspidium s. ----- near the Cypthesis, moist banks
 Lima -----

Adiantum ----- Amancaes mts (B) -----

Azolla ----- abundant near Callao -----

Alernatis ----- pubesc foliol small. ternate dentate, broad
 floral leaves, flos greenish, common vine above
 Obrajillo also Baños -----

Ranunculus ----- but upper leaves opposite,
 incised, carpels oblong with
 inflexed point, 2 to 3 feet,
 spreading, above Obrajillo -----

Thalictrum ----- common at Obrajillo
 if my memory serves me:
 no specimens.

Berberis ----- 3 to 5 feet fol. entire glaucous
 below, obtuse or apiculate
 oblong $\frac{2}{3}$ inch by $\frac{1}{3}$. flos
 not seen. above Obrajillo
 rare -----

Sisymbrium ----- fol bipinnatifid - near
 canchans. Obrajillo to
 Casa cancha, also a
 weed in cultivated
 grounds -----

Cremolobus - 3 to 9 inches, fol dentate, "locul
ex apic pendul" common
at Obrajillo and below
Arabis? - 2 ft. fol byrate few, slender
plant with long slender
pods @? below Obrajillo, once
only -

Sepidium bipinnatifolium - common at
Obrajillo -

Menouvillea ^{linearis} ~~bullata~~ - 6 to 10 inches, common
at Obrajillo &
apparently a 2^d sp.,
fruit smaller and not
alated, 6 to 12 inch,
fol mostly radical
pinnatif. above Obrajillo

Cleome - 1 to 3 feet - branching
herb - common at
Obrajillo.

Monina - 3 to 10 inches, common at Obrajillo,
fruit alate, fol broad lanc.
- 3 to 8 inch, broad leaves,
small flos, fruit reticent
very slightly crested.
Obrajillo.

Polygala - 3 to 5 feet, branching, flowers
large very deep blue, orn-
amental, fol 1/2 inch long
3/4 broad. Obrajillo -

Drymaria - fol reniform cal. lacini.
obtus, small flos, 3 inch
to 2 feet, common at
Obrajillo -

- fol reniform, cal lacini
acute, flos with close
pubescence, Obrajillo.

n.g. - 5 and 2 stegmas, caps
obtus, coriaceous,
fol cordate sessile,

no coral, multicaul upright 1 ft high
Cal 1/3 inch - Obrajillo sc -

Stellaria ----- like uliginosa. ciliate
leaf, close pubescence.

Obrajillo

----- ? ----- weak with a few spread-
-ding branches 1 to 3 feet long,
fol ovate acuminate

sessile. Obrajillo

gens -----

habit of former, petals
bifid, flos in term clusters,
with scarious bracts,

cal 1/4 inch, fol broad ovate
sessile. Obrajillo

Silenene ? -----

1/2 to 2 inches high, corol
very small, calyx
spreading. Baños

and below Culma

fol oblong, cal. dent.

cord. lin. -----

Linum -----

like valparaiso species,
yellow flos, Obrajillo.

Malva ? -----

near, tinensis & flos very
small blue: fol repand

deeply 3 to 5 lobed, calyx
pubesc outer, cal. segments

Ubutilon, -----

linear - 3 inch to 2 feet. Obrajillo
carpels about 14, mutic: fol
pubescent, broad cordate, flos
yellow: below Obrajillo.

Malvac ? -----

densely toment flos small,
pale blue, calyx of 3 linear
segs: carpels with toment
arous, fol repand dent, 1 to 2 ft.

Obrajillo -----

cal simplex, carpels 5 tuberc
bi-auristate, small blue
flos. below Obrajillo

Sida or Malva, large dent. leav. flos yellow crowded in axils, linear bracts, but
calyx naked - Obrajillo. Herb 2 to 5 ft.

Cardiospermum -----

pubesc: decumb multica

Oxalis

woody root, slightly hairy - cal lacini broad at base
cordate. Baños & if American.

" crenate, cultivated, flowers not seen

fol obcordate, minute pubescence
Baños Culma

Stellaria ----- like uliginosa. ciliate leaf, close pubescence.

Obrajillo
weak with a few spreading branches 1 to 3 feet long, fol ovate acuminate sessile. Obrajillo

gens ----- habit of former, petals bipid, flos in term cluster, with scarious bracts, cal 1/4 inch, fol broad ovate sessile. Obrajillo

Silenene? ----- 1/2 to 2 inches high, corol very small, calyx spreading: Baños and below Culhuai fol oblong, cal. dent. cord. lin:

Sen

Malva? ----- near, tinensis o flos very small blue: fol repand deeply 3 to 5 lobed, calyx pubesc outer, cal segments linear - 3 inches to 1/2 inch. Obrajillo

Ubutilon, ----- carpels about 14, mutic: fol pubescent, broad cordate, flos yellow: below Obrajillo.

Malvac? ----- densely toment flos small, pale blue, calyx of 3 linear sign: carpels with toment awns, fol repand dent, 1 to 2 ft. Obrajillo

----- cal simplex, carpels 5 tubercular bi-auristate, small blue flos. below Obrajillo

Sida or Mattheria, large dent. leav. flos yellow crowded in axils, linear bracts, but calyx naked - Obrajillo - Herb 2 G. 5 ft.

Cardiospermum ----- pubesc: decumb multica below Obrajillo. of sp from Lerma

Xalis ----- 1/2 to 1 inch high very small yell flos scar sheaths. fol obcordate, minute pubescence Baños Culhuai

Erodium - - - - - 2 to 3 inch, small purple
flos, fol multifid and
minutely parted, bulbous
1 ft. decumbent multifid
leaves, scattered hairs
- Baños -

? - - - - - weak stem 2 to 4 feet, fol
round ovate dentate
stipules - - - - - Obrajillo

Geranium - - - - - 1 to 2 feet, fol 3 to 5 lobed
incised long pubescent
all over, and fruit also.
flos, small weak herb
Baños

Tropaeolum - - - - - fol peltate slightly lobed
with deep emargination
at base. flos deep orange
common: below Obrajillo -

Tropaeolum tuberosum - - - fol 3 lobed flos not
seen: cultivated at
bulbous root edible
even in raw state -
Tropaeolum fol deeply 4 lobed flos scarlet. common
Obrajillo

Dalea Ayacuensis - L - fol about 8 joints, basal
lacina long acuminate,
below Obrajillo -

" fol about 6 joints flos blue & white. cal & bracts smoothish - Obrajillo

Desmodium - large purple flos. hairy broad floral bracts - Obrajillo

Cassia - - - - - like "floribunda" shrub
20 feet B. - below Obrajillo

Phaca - - - - - near villosa leaflets lin,
below Obrajillo rather
rare

Adermia A. - - - - - herbaceous. decumbent. long plumose sili on pods
Obrajillo

Melilotus ① 4 to 10 inch. flos yellow small. pod not exceeding
calyx. above Obrajillo. apparently native

Trifolium habit of vetches. pubescent. above Obrajillo
apparently genuine species
of Mexican Obrajillo

Erodium - - - - - 2 to 3 inch, small purple
flos, fol multifid and
minutely parted, bulbous
1 ft. decumbent multifid
leaves, scattered hairs

- Baños -

- weak stem 2 to 4 feet, fol
round ovate dentate
stipules - - - - - Obrajillo

Geranium - - - - - 1 to 2 feet, fol 3 to 5 lobed
incised long pubescent
all over, and fruit also
flos, small weak herb

Baños

Tro

common - - - - -

Tropaeolum tuberosum - - - fol 3 lobed flos not
seen: cultivated at
bulbous root edible
even in raw state -

Tropaeolum fol deeply 4 lobed flos scarlet. common
Obrajillo

Dalea Ayacuensis - L. fol about 8 jagis, cal
lacini long acuminate,

below Obrajillo -

" fol about 6 jagis flos blue & white - cal & bracts smoothish - Obrajillo
Desmodium - large purple flos. hairy broad floral bracts. Obrajillo

Cassia - - - - - like "floribunda" shrub
20 feet B. - below Obrajillo

Phaca - - - - - near villosa leaflets lin,
below Obrajillo rather
rare

Adesmia hispida - L. herbaceous,
spreading, large
pod sessile 5 to 6
jointed, Obrajillo

Psoralea - - - - - coarse shrub 6 feet
pubescent habit
of Chilean Obrajillo

Lathyrus - - - - - large, Obrajillo pin
mostly semi jugis fol
lanceolate, ^{2 inch} stipules semi
hastate.

near myrtifolius stem
not winged 1 foot, stip
narrow. cal. lacini
long acute pinna
4 to 6 jugis Obrajillo

Hydrogerea
~~Hydrogerea~~

herbaceous decumbent - spreading - large scarlet fls

Many - Obrajillo

Lupinus - - - - - suffruticose 3 to 4 feet,
with spreading
branches, fls
large blue &
white, fol 6 to 7
sericeous below
below Obrajillo
also Baños -

Avena lappacea - - - - - rose leaved, 1 fr.
below Culucui

Aphanes

proscumb. fol pinnate, multiple, Cascade Obrajillo -

Tacsonia - - - - - all pubesc, stip cordate
fimbriate, below Culucui
also Baños, fls large,
red and showy -
shorter tube less tomentose
and broader, lobes to leaves,
below Culucui, fls
greenish.

less pubesc more
slender 3 fol, fls
not seen, below
Culucui

Cucurbitata - - - - - small deeply about
5-lobed, fruit prickly,
fls inconspicuous -
Obrajillo

Cue - - - - - fol broad cordate
dent. petiol. fls
inconspic; fruit
smooth, Obrajillo -

Anothura

fol integerr. caps 3-4 lobes somewhat attenuate at base -

slightly winged at apex - smoothish. Obrajillo

fruit sessile covered with long soft hairs. petals 1/4 inch
repand at apex. Obrajillo if Barrios?

rank herb 8 to 10 feet,

common from near

Yaso to Barrios -

flos same stem

weak and trailing,

fol ~~fls~~ pinnatisect

and more divided,

Culicai and Barrios.

Ornamental like

the last

Tillia connata R. & P.

1/2 to 2 inch high

abundant on

walls etc at

Obrajillo and

above - cal

lacin 4.

Escheveria

9 inch, smooth pointed
leaf, flos scarlet.

Escheveria

same size pulverulent, 5 or 6 leaf pointed
9 inch ~~smooth pointed leaf~~ flos scarlet
cal lacin 4. Barrios

Obrajillo and below
Obrajillo

Opuntia

rank herb 10 to 15 feet. Tuna,

Sedum?

short fleshy leaves. rocks - Obrajillo to Culicai

Sesuvium?

but small purple flos. and smaller plant. caps 3 valued.

fol lin. cili. prostrate. above Culicai

Cereus?

(perhaps conger of *Opuntia*? no 3. above.) ovoid and 6 to 8

inches high - flos scarlet & showy - if *Cylindropuntia*? 1 to 1 1/2 leaves

above Obrajillo

fragile, flos not seen,

between Yaso and

Obrajillo B

10 to 15 feet thick

woody plant

and many spread

branches composed

of about 6 ribbed

or ovoid joints

10 inch by 5. below

Obrajillo

Soasa - - - - - large orange flos, fol
 repand 5 to 7 lobed
 covered with stinging
 hairs esp on calyx,
 rank herb 3 to 5 feet,
 common from near
 Yaso to Baros -
 flos same stem
 weak and trailing,
 fol ~~flos~~ pinnatisect
 and more divided,
 Culuai and Baros,
 Ornamental like
 the last

Tillea connata R. & P. - - - - - 1/2 to 2 inch high
 abundant on
 walls &c at
 Obrajillo and
 above - cal
 lacini 4.

Escheveria - - - - - 9 inch, smooth pointed
 leaf, flos scarlet.
 Obrajillo and below
 Obrajillo -

Escheveria same size pulverulent, fol. leaf pointed
 of much ~~more~~ ~~pointed~~ leaf - flos scarlet -
 cal lacini 4 or 5, flos scarlet (Baros)

Opuntia - - - - - none - 0 l. h. T. ^{Tunas}

Sedum? short fleshy leaves, rocks - Obrajillo to Culuai
 Sesuvium? but small purple flos. and smaller plant. caps 3 valves.
 fol lin. cir. prostrate - above Culuai
 Cereus? (perhaps congener of Opuntia? no 3. above.) ovoid and 6 to 8
 inches high - flos scarlet & showy - if Echinocact? 1 to 1 1/2 leagues
 above Obrajillo

fragile, flos not seen,
 between Yaso and
 Obrajillo B
 10 to 15 feet ^{trunk} thick
 woody plant
 and many spread
 branches composed
 of about 6 ribbed
 or ovoid joints
 10 inch by 5. below
 Obrajillo -

Anothera

fol. integerr. caps. sessile somewhat attenuate at base.

slightly nerved at apex - smoothish. Obrajillo

fruit sessile covered with long soft hairs. petals 1/4 inch

repand at apex. Obrajillo of Barrios?

rank herb 8 to 10 feet.

usual and Barrios.

Ornamental like

the last

Tillea connata R. & P.

1/2 to 2 inch high

abundant on

walls &c at

Obrajillo and

above - cal

lacin 4.

Escheveria

9 inch, smooth pointed leaf, flos scarlet.

Escheveria

same size pubescent, 6 or 8 pointed leaf, flos scarlet

Obrajillo and below Obrajillo

Opuntia

normal like ^{Tuna,} ~~Factor~~ from 3 to five feet from Agaves to Obrajillo

habit of *Curassavica*, procumb, joints long ovoid flattish 2 inch, fragile, flos not seen, between Yaso and Obrajillo B

10 to 15 feet ^{trunk} thick

woody plant and many spread branches composed of about 6 ribbed or ovoid joints 10 inch by 5. below Obrajillo

n.g. ----- large dry stony seeds,
8 or 10 feet, trunk slender
upright rigid with
spreading branches at
summit distant clusters,
long spines Culucui &
some groups -

Pileas ----- fol repand dent
smooth, fruit almost
sessile; Culucui
----- fol plicate abruptly
ciliate at base
not glandular;
Obrajillo -

----- true currant 5
to 6 feet, fol pert
dotted above, with
numerous teeth,
flos in long raceme
bracteate; Baños

Daucus? ----- weak, diffuse branch,
involucre dissected;

Obrajillo -
Bolesia lobata R. & P. ----- fol deeply 3 to 5 lobed.
Obrajillo & common

Helosciad ----- of H. leptophylla,
1 to 2 feet, diffuse
branching, fol
multifid, lacini
linear, mericarp
5 ribbed; Obrajillo
----- an ead @ 2 to 3 inch
height - above.
Obrajillo

Sambucus Peruviana R. 10 to 20 feet -
common about
Baños, perhaps
planted. no
specimen
was obtained

Hedyotis - - - - - ornamental shrub
8 to 12 inches, fol
lin involute,
branching -
common at

Galium - - - - - Obrajillo -
fol 4 in's broad,
flos large fruit
sessile, Obrajillo
like a parum -
about 7 leaved,
fol linear -
common at
Obrajillo -

Valeriana - - - - - 2 to 3 feet, fol
pinnate ce
dentate -
Obrajillo -

Valeriana - - - - - 2 to 3 feet, weak
herb, fol lan
with a few
lacini, radical
ones with long
petioles: found
at Obrajillo
and Baños
8 to 5 feet
herb, large leafy
panicle, fol
broad and
pinnatisect,
3 to 4 lobed
and term.
Baños -

Strobilites? - - - - - more paniculate
than *Linum* ^{virve}
simple 5 leaved fol pet
ovate dentate, Obrajillo -

Peperomia

an ead Lima
long teeth on
leaves, common
at Obrajillo
an ead, broad
leaved at base.
below Obrajillo

Eupatorium

habit of ageratoid,
fol petiolate cord,
2 to 3 feet, common
above Obrajillo

habit of
Brickellia, large
blue flos, fol op
lanceolate,
rugose petiole
oblong at base,
found at
Obrajillo
2 to 3 feet

Eupatorium?

involucre 3
serial, scales
ribbed, fol une-
qual cordate
crenate petiole,
~~oblong at base~~
tomentose below
Obrajillo
habit of the
perfoliate, flos
blue pale,
fol lanceolate
rugose 3 to 5 ft.
Baños &c

Stevia? fol broad dent. involucre 6 phyt. Obrajillo

Ageratoid

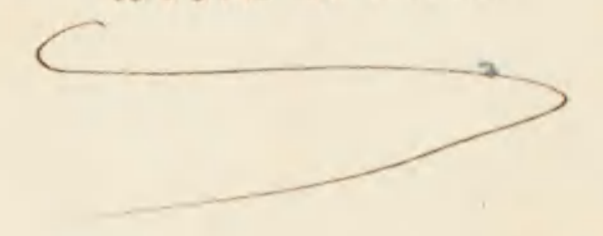
involucre
uni~~serial~~ serial, flos
purple, fol
petiolate
broad ovate.
Obrajillo

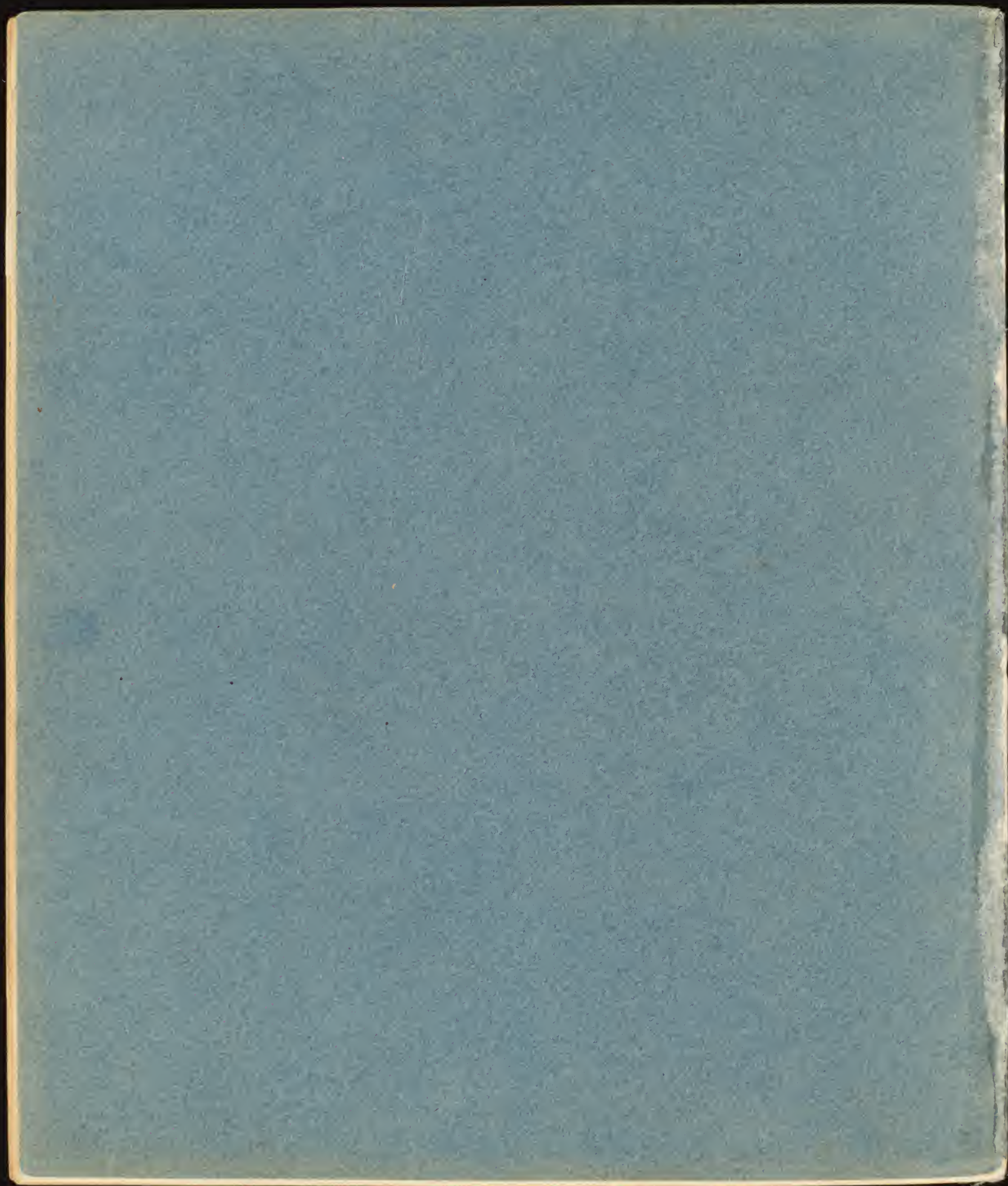
Cupatorioid ----- spreading shrub
3 to 5 ft
involucre about
6 broad scales,
fol cordate
serrate short
petiolate.
above Obrajillo

Pluchea? ----- fol obovate
denticul 2 in
ly, involucre
3 serial.
Obrajillo -

Baccharis ----- fol trinerv
broad lance
entire at base,
dentate, in flo
-rescence term
-inal below
Obrajillo -

Baccharis? (Chilca?) invol 2 to 3 serial - fol cuneat, lance dent
attenuated at base - 1/4 inch - suffruticosum - Obrajillo
" ----- usual habit - part long - fol cuneate few teeth - Obrajillo
" ----- trialate - aphyllous - flos lateral - glutinous and stem also -
above Baños





3

Peru

Peru.

Asteroid ----- 0 ----- 3 to 4 inches flos. large
purple, pap, 5 rays
stouter, than rest,
rays nearly naked
invol 3 serial long
acuminate lanate.

Obrajillo

----- 2nd sp, 1 to 2 feet fol
smooth above, dentic
below Obrajillo.

Erigeron? ----- like Canadense
entire obtuse
leaves: below
Obrajillo -----

Galinsoga? ----- 0 ----- flos sometimes
purple, ~~and~~ ^{involucre}
biserial, fol
hairy broad ovate
petiol, 1 ft. - below Obrajillo

Spilanthes ----- flos large white, fol
broad at base short
petiol, 1 foot below
M. 110

Zinnia paniculata Lk. 685. f. 1. 6 to 10 inch. abundant
below Obrajilla

Tagetes involu 1 phyll. 5 to 6 dent. pap 6 rays. 3 to 12 inch
flos inconspic. abundant Obrajilla

Polymnioid? shrub 12 to 18 ft. fol opp. atten. auric at base. amplex.
invol 5 broad leaves. short yellow rays. - Nass 5 Culuai.

Veberoid? flos large yellow. fol repand lyrate amplex or perfoliate
lanceolate below. cal 2 to 3 serial. Obrajilla

serial of broad
obtus leaves
rays short yellow.
Obrajilla

Rudbeckioid ----- fol opp broad
ovate serrate,
recept conic
chaffy pappus
above Barrios

Helianthoid 3 to 9 inch. 2 long chaffs and 4
intermed broad strigosa - fol broad lanceol intergen.
Obrajillas close pubes. flos not seen
Obrajilla

Helianthus? more hairy and leaves broader than Lima. Obrajilla 9
" very large flos. perhaps diff. above Obrajilla.

Helianthoid? opp. petiol. serrate broad lanceo leaves, close pubes.
flos not seen. Obrajilla

Bidens 1 ft. simple. 1 fld. dissected leaves, long aken.
common. below Obrajilla

" 6 to 8 inch. flos mostly single. aken rather long short
awns, stem simple. fol 3 fid, incis, smooth. Obrajilla

" ? decumbent, dissected multif leaves slightly hairy. "

" ? or Coreopsoid. cal pilos, fol 3 parted, incisely tooth pilosicula.
Obrajilla

Parthenioid - invol bi serial, aken bi aristate, rays short cream col,
leaves alt. serrate attenuate decumbent. Obrajilla

Coreopsis odoratissima? aken 2 soft awns - suffr. 1 to 2 ft. fol opp. much
dissect, branching - Culuai also Casa Candia

Helianthoid opp petiol - ovate leaves, serrate, large yellow flos. Obrajilla
Senecio fol lyrate pinnatif. segments lin - 3 to 4 ft. Obrajilla

Arnicoid - flos white - " Barrios
Gnaphalium habit purpureum - invol scales blackish - Obrajilla

" 1 ft. lanate lin lance fol. if at Lima? "

" fol smooth above decumbent 1 to 2 ft. "

" 1 inch. procumbent branching. flos crowded among leaves
" ----- Obrajilla



Arnicoid

decumbent herb, large leaf lyrate broad amplex and dilated at base tomentose below and stem.

Obrajillo

suffrut fol broad dentate lanate

below petiolate herb 1 to 2 feet

about 6 large flos fol repand lyrate on petiol 3 in long

herb fol amplex panduriform

Arnicoid - plus notes

Gnaphalium

habitat purpureum - invol scales blackish - Obrajillo

1 ft. lanate line lance fol. if at Lima?

fol smooth above decumbent 1 to 2 ft.

1 inch. procumbent branching. flos crowded among leaves

Spulanthus

flos large white, fol broad at base short petiol, 1 foot below

Obrajillo

flos yellow, fol long petiol, wet grounds on each below Obrajillo and Callao.

Lagisbeckioid

1 to 1 1/2 feet toment. fol dissect invol bis serial. of broad obtuse leaves

Obrajillo

Rudbeckioid

fol opp broad ovate serrate, recept conic

chaffy papp. above Barrios

Helianthoid

3 to 9 inch. 2 long chaff and 4

opp petiol ~~to~~ broad lance leaf

intermed broad strigose - fol broad lanceol interser.

Obrajillo ~~lose pubes. flos not seen~~ Obrajillo



Spilanthes ----- flos large white, fol
broad at base short
petiol, 1 foot below
Ob. 110

Zinnia paniculata Lk. 685. fl. @ 6 to 10 inch. abundant
below Obrajillo

Tagetes involucre 1 phyll. 5 to 6 dent. pap 6 rays @ 3 to 12 inch
flos inconspic. abundant Obrajillo

Polymnioid? shrub 12 to 18 ft. fol opp. atten. auric at base. amplex.
invol 5 broad leaves. short yellow rays. - Yata 5 Culucan.

Veberoid? flos large yellow. fol repand lyrate amplex or perfoliate
lanate below. cal 2 to 3 serial. Obrajillo
serial of broad
obtus leaves
rays short yellow.

Rudbeckioid ----- fol opp broad
ovate serrate,

Arnicoid ----- decumb herb, large
leaf lyrate broad
amplex and dilated
at base tomentose
below and stem.

Obrajillo

suffrut fol broad
dentate lanate

below petiolate
Obrajillo.

herb 1 to 2 feet

about 6 large flos

fol repand lyrate

on petiol 3 in long

herb fol amplex
hirsutifolus - Obrajillo

panduriform

undulate

auricul at the

base tomentose

1 foot. Baños

Arnicoid - flos yellow many rays. florets very
num. invol 4 serial. pap fl about
7 to 8 pilose rays fol opp. ovate 5 dent
white below - Obrajillo

~~*Gnaphalium* 1 inch procumb. branches. flos crowded among leaves. Obrajillo~~
~~*Gnaphalium* ----- invol scales black,~~
~~habes purpuricum Obrajillo~~

Obrajillo

Obrajillo

Gomph, ----- yellow pubescence
beneath leaves, capit
rather naked above
Obrajillo

Alternanthera? ----- broad leaf sessile,
capit sessile: small,
below Obrajillo

Chenopodium ----- or atriplex hastate
entire leaves, branch
terminal panic pub.
below Culicai

Phytolacca ----- spreading shrub
4 to 6 feet, acute
leaves. Obrajillo
not common

Bassella ----- vine. broad cord
leaves, flower branch
somewhat naked.
Obrajillo
common

Bassella tuberosa ----- cultivated below
Culicai. flos not
seen.

Polygonum ----- suffrut: branch
3 to 8 inch, broad
leaf entire, somewhat
habit of dicentra
common on rocks
Obrajillo and
Baños

----- dock leaved
vine: fol cordate
pubescent. below
Obrajillo

Quinchamalium ----- linear leaves.
below Obrajillo

Croton ----- shrub 2 to 3 ft.
densely toment.
fol broad sub
rotund. Obrajillo

Euphorbia like pop. multicaul. fol obovate entire - large tuberous root. Baños.

Cuticle shrub 4 to 6 feet flos glom. axill
fol 1/2 inch, 2
leagues below
Chajillo

fol narrow ovate
dentate plicate
short petiol.

Baños
stinging hairs
fol ^{simple} broad dentate
plicate, crowded.
Baños

Peperonia umbellata --- clefts of rocks
above Baños
with P. scutell.
fol simple as
if cordate and
soldered by upper
surface; rocks
below Chajillo
with unequal fol

Myrica 20 ft. ravine - 2 leas. below Obrajillo at branch
Ephedra. Obrajillo to Casacancha - long atten.
acuminat

low tree --- --- ---
reticul below 1 league
below Obrajillo ---
thick stem and few
branches smooth fol.
& lobed acuminate.
1 league below Obrajillo
4 to 10 feet high.

Shrub --- --- ---
fol alt. lanc. entire
evergreen, short petiolate,
leaves young toment.
Obrajillo

Goodyeroid --- --- ---
flower, stem distinct
from leaves, full
of scarious sheathy
flos in a dense
raceme 6 to 8 in.
Obrajillo - fol -
lanceolate.

Euphorbia like pos

Cuticula

Chajillo
fol narrow ovate
dentate plicate
short petiol.

Baños

stinging hairs
fol ^{single} broad dentate
plicate, crowded.
Baños

Peperonia umbellata

clefts of rocks
above Baños
with P. scutell.
fol simple as
if cordate and
soldered by upper
surface; rocks
below Chajillo
with unequal fol

Murica & Ephedra

Shrub

branch terminal branch
spines fol. oblong atten.
obtusely serrate acuminate
reticul below. 1 league
below Chajillo

low tree

thick stem and few
branches smooth fol.
& lobed acuminate.
1 league below Chajillo
4 to 10 feet high.

Shrub

fol alt. lanc. entire
evergreen, short petiolate,
leaves young toment.
Chajillo

Goodyeroid

flower, stem distinct
from leaves, full
of scarious sheaths
fls in a dense
raceme 6 to 8 in.
Chajillo - fol -
lanceolate.

Habenaria ----- fol broad lanc
acute at each end
long acute floral
bracts flor not
seen, below Culiaci

Anomum racemosum ^{R.P.} flos red with
orange tinge,
leaves lanc,
atten at base,
flos stem distinct
from leaves, full
of scarios sheath
flos in a dense
raceme full of
scarios sheath

Sisyrinchium ----- flos single, rose
coloured, spath,
much exceed leaf
below Obrajillo -

Anthericum? ----- long branch, raceme
caps 1/2 inch,
common below
Obrajillo -----

Alstromeria ----- large floral leaves
largest, Obrajillo
to Culiaci -

----- lanc narrow
leaves, coral inch,
not spreading,
even at summit,
cal. shorter,
obtus; Baños

Bromelia? ----- springy bracts
fol white below
with few strait
spines; below
Obrajillo and
Baños -

Agave bis - - - - - perhaps belongs
more properly to
this region -

Tillandsia - - - - - broad large leaves,
large bracts, rocks
above Obrajillo
- - - - - smallest single
flos. on cacti &
shrubs, below
Obrajillo -
- - - - - scurfy. fol broad
base, bracts broad,
yell flos. above
Obrajillo -
- - - - - subulate leaves
single flos -
- - - - - long wool on
chaffs, red spikes
blue flos, between
Taso and Obrajillo

near 4th sp. 1 fld. short stem - fol. invol. subulate -
Obrajillo & Taso

Commelina - - - - - large spathe slightly
hairy: flos larger
than Callao -

Cyperus - - - - - 3 to 5 feet, unill
comp. spikelets
blackish: Obrajillo

Carex - - - - - 3 to 5 feet. habit of atrata,
but 16 spikes all an drogyn-
male at tip, fr obtuse,
shorter than black
scales - above
Culuarav

Setarioid - - - - - white spike,
hairy sheaths,
below Obrajillo
- - - - - 2^d sp branching 4 ft.
sheaths smooth,
very small outer
valves to calyx -
Obrajillo

Stipa - - - - - plumose ^{down} branching
6 feet. Obrajillo

Athropogon - o - - - - - congen. A, oligostach
3 to 6 in spikes -
common below
Obrajillo

Aristida - o - - - - - 6 to 9 inch awns
nearly equal, stems
unbranch. below
Obrajillo - - -

Panicoid - - - - - same gen as chili-
coid. glum. coriaca.
obtus. awned.
Obrajillo - - -

Paspalum - - - - - habit of cressia
2 to 3 feet. flowers
ellipt. Obrajillo.
- - - - - same habit 6
to 10 inch narrow
rachis. Obrajillo

Polypogon - - - - - Obrajillo.

Melica - - - - - 1 to 2 feet, smooth,
flos. scabrous
stem. Obrajillo

Bromus - - - - - smooth stem
and leaves.

- - - - - scabrous flos.
awned. Obrajillo
sometimes 2 fld.

- - - - - 6 to 8 inch long,
awns. Obrajillo
an ead. Baños
but 2 to 3 feet
and spreading
panicle. of
Cata lanca?

Eragrostis - - - - - near pilosa. flos
crowded panicle,
sheath hairy.
Obrajillo

Chulanthoid? - - - - - 6 in. white below. pub.
segm 1/3 in ch. 3 to 5
cleft, involute below
Obrajillo.

2 sp. 4 to 6 in dense
toment. segm. 1/4 inch
much divided.
Obrajillo -

Polypodium - - - - - like vulgare but
thick creeping stem,
below bulbous -
lance. entire frond.
6 to 12 inches.

Obrajillo -

Notholena? - - - - - green above,
covered by
scales below.

frond bipinnat.
Obrajillo -

Woodсия? - - - - - 4 to 6 in. slight
pubesc. Obrajillo

Cheilanthes - - - - - 1 to 1 1/2 feet long
petiol: chaffy-
variter ^{pinis}_{trios}
segments like
granules-clefts
of rocks Obrajillo

Adiantum - - - - - cuneate seg-
ments - found
at Obrajillo -
reijom segments.
Obrajillo.

Cistopteris? - - - - - like aspidium
tenue - ~~tree~~ 8 to 10 in.
Obrajillo

Aspidium - - - - - no shields seen -
frond bipinn. segm.
trapezif. 1 to 2 feet -
stipe chaffy - clefts
of rocks: Baños

Asplenium - - - - - 1 to 1 1/2 feet. segments
more dissect. perhaps
different - Culuai

Equisetum - - - - - clustered below -
Culuai -

Lycopodium - - - - - like ^{rupes. tre.} ~~rupes. tre.~~ margin.
slightly ciliate -
Rocks at Obrajillo

Marchantia - - - - - Baños &c - - -

Cetraria - - - - - near Icelandica.
Obrajillo.

Peru.

Anemone - - - - - habit of nemrosa -
flos white 1 to 1 1/2 ft -
fol triternate - in used.
stem leafy at top.
Baños.

Ranunculus - - - - - long hairs fol.
multifid carpels
beaked. petals
sometimes so. obtuse
or notched at apex -
Baños.

inch high creeping
inconspicuous - fol
reniform integer
carpels mutic -
2 and 1/2 leagues
below Culuai

Arabis? - - - - - 4 to 6 inch fol above
dent pods 1/2 inch. flos
small white Culuai -

Arabis? - - - - - stem decumbent at
base. 6 in, small obov
entire spatulate
leaves - pods fusiform
1/2 inch - Baños -
? - - - - - shrubby base. fol
oblong atten, paucide
flowers white, short
siliqua - clefts of
rocks above Baños
common.

Draba - - - - - 1 to 3 in. pubes. obtus
pods. Culuai
an ead casa
Cancha
pods smooth
twisted, rather
acuti. - Culuai -
habit of arabisans
3 to 6 in. fol mostly rad. obt
obt: atten at base 1/2 inch pods broad acuti (Baños)

Cardamine - - - - - near Misuta. from
Culuai to Casacacha

Sagina? - - - - - 1 to 2 in. much branched
fol pilosiuscul. flor
numerous - Baños

Chelonopsis - - - - - an ead as long as
at Casa Cancha.
Baños - - - - -

Lycchnis - - - - - near Misuta. pub
lance leaves, large
calyx. 6 to 9 in. flos
solitary terminal -
from Baños to
Alpamarca

Malva? acaulis - ca - - - stemless, flos congest.
calicel lacini. linear,
flos 1/4 inch. fol round
dent, petiolate. above
Baños - - - - -

Scoparius - - - - - habit of villosus
but foliol 9 to 11 -
upright densely
crowded raceme
1 ft. white lunate
stem, flos light
blue. above Baños
dwarf recurved
stems 2 to 3 inch
long, sericeo, pilose,
foliol 5 to 6; Baños,
1 to 3 inch lobed
leaves, hairy pods.
from butuai to
Casa cancha

Astragalus - - - - - smoothish 8 to
12 inchy - flos cream
colour - abundant
at Baños -

Astragalus - - - - - middle persistent
and becomes a
spine. top of
ridge at Baños
rare -
pod 1/4 inch, inflated
villosus, fol 12 to 14
jugis - rather large,
foliol angust
racemes shorter
than the leaves,
flos small.
Baños -

Acena? - - - - - fol ternate -
surate obtuse cum
- eate petiolate
and sheaths
hairy, flos not
seen Baños.
Richy -

Aphanes

caul & fid, stem
prostrate, sinu-
all argentine pilos,
radical leaves
pinnatisect
with an
appendage
to each lacin.

Baños

potentilliform-
caul 6 to 8 fid, procer
branching foliol
about 5, incised;
no petals seen.

Baños

dwarf cespitose
Baños to casa
cancha, common
(not catalogued)

Rosae ?

congen of Chili
cordilleras - polygonum
habit, simple linea
crowded leaves, pt.
dent. margin. shrub
6 in. high, like ^{Margaritarius.} ~~ma...~~

Baños

Epilobium denticulatum --- water courses.
Baños culcaisi

Myrophyllum --- ^{W.} verticillata
Culcaisi and
crest of Andes
probable alt
14,700 feet.

Paronychia --- --- larger leaves
and more num-
pointed festipubs
than casa cancha
sp; dense
tufts above Baños.

Valeriana - - - - - fol lanceolate
spatul. obtuse,
stem leafless,
6 to 10 inches,
verticills crowded
in a dense term
raceme: Baños
scapes nudis,
6 to 8 in, whorls
form interrupt
spike; fol lin,
obtusate at apex,
minutely
ciliate Baños
fol deeply pinnatis.
scape leafy pinnate
branching, dense
clustered flos,
above Culuar?
fol most radical pin,
multipid, multicaul,
4 to 10 in Baños

Baccharis - - - - - stunted decumbent
fol broad cuneate
2 or 3 toothed at
summit, glutin,
flos large solit,
axill, crowded
at end of branch.

Baños

flos crowded at
sum. fol broad
obovate with a few
teeth. shrub Baños
dwarf fol cuneate,
about tridentate.

Baños &c

Tripolioid - - - - - scape decumbent
at base, 2 to 3 in
with scales, cal
2 serial short rays,
flos radical, ^{mostly} above Culuar

Erigeron - - - - -

like *radicans*,
but woody root,
pubescent fol.
fol lance atten, entire
leaves. - above

Baños

almost stemless
1 to 2 in herbaceous
and rather large
flos, fol obov atten,
obtusely unaulate
margin. Culucui

Coryzoid ? - - - - -

somewhat habit
of *Senecio*. invol
sural, numerous
acute scales.
fol pinnatisect,
rounded deep
lobes. 1 to 2 feet
decumb. Baños -

Gnaphalium - - - - -

in can. lanceate,
flos yellow.

Baños -

6 to 10 in. stem
mostly simple.
fol linear lance,
capit small
yellowish, in
crowded term
fascicles. Baños

1 in. fol lanceate
obovate, flos
long solitary
with brown
scales. above

Baños -

Senecio - - - - -

fol crowded
lance, dentate
succul. flos small
Culucui. - - - - -

Senecio. ⁷ - - - - - suffrut. 1 to 2 feet.
fol linear 1 to 1/2 inch.
invol with scales at
base, whole
whole somewhat
toment, flowers
at sum branches
corymb. Baños

Senecio - stem 0 to 3 in. smooth, large yellow rays - below Culucui

" 1 to 2 ft. invol 2 to 3 serial, scales lax, broad obtuse, outer somewhat
dentate. fol oblong lance. few teeth 1/2 inch long, toment above Culucui.

Senecioid - 0 - - - - - decumb 6 to 8 in
involuce bi -
serial toment, no
rays, capit large,
fol crowded,
1/3 inch by 1/10
with but a
few teeth -
Baños and
leasa Bancha

Senecioid - - - - - 2 species rigid
shrub 1 foot -
involuce smooth
and whole
plant - fol
dentate, 1/3 inch, flos
small, dentate
Baños

3 sp, rigid
branching
shrub: with
spines branching,
1 foot, fol lin fas-
-cie with some
teeth, involuce
flowers solitary,
Baños, to the

Alpine ground
4th sp smaller flos,
than 1st 1 to 2 ft succul
fol lin denticulat
Baños

Seneoid

(46) fol radical
3 to 9 in long, linear,
succul. white
below. scape
2 to 5 fld. invol ^{no rays}
biserial spreading.

Baños

2^d sp 1 foot, lance
tapering at summit
entire succul,
somewhat cottony,
4 to 6 fld. invol
biserial spreading
— Baños —

Seneoid

very coarse
herb, fol lyrate
pinnatif, all
toment and
glutinous.

large flos no rays Baños

Seneoid

stem 1/2 inch 1 fld
large no rays -
fol bipinnatisect
invol biserial.
outer linear -

Baños

cogen of (47) stemless,
long yellow rays,
fol lyrate pinn
atisect, white
toment below -
2 to 3 inch long -
Baños

Pussia?

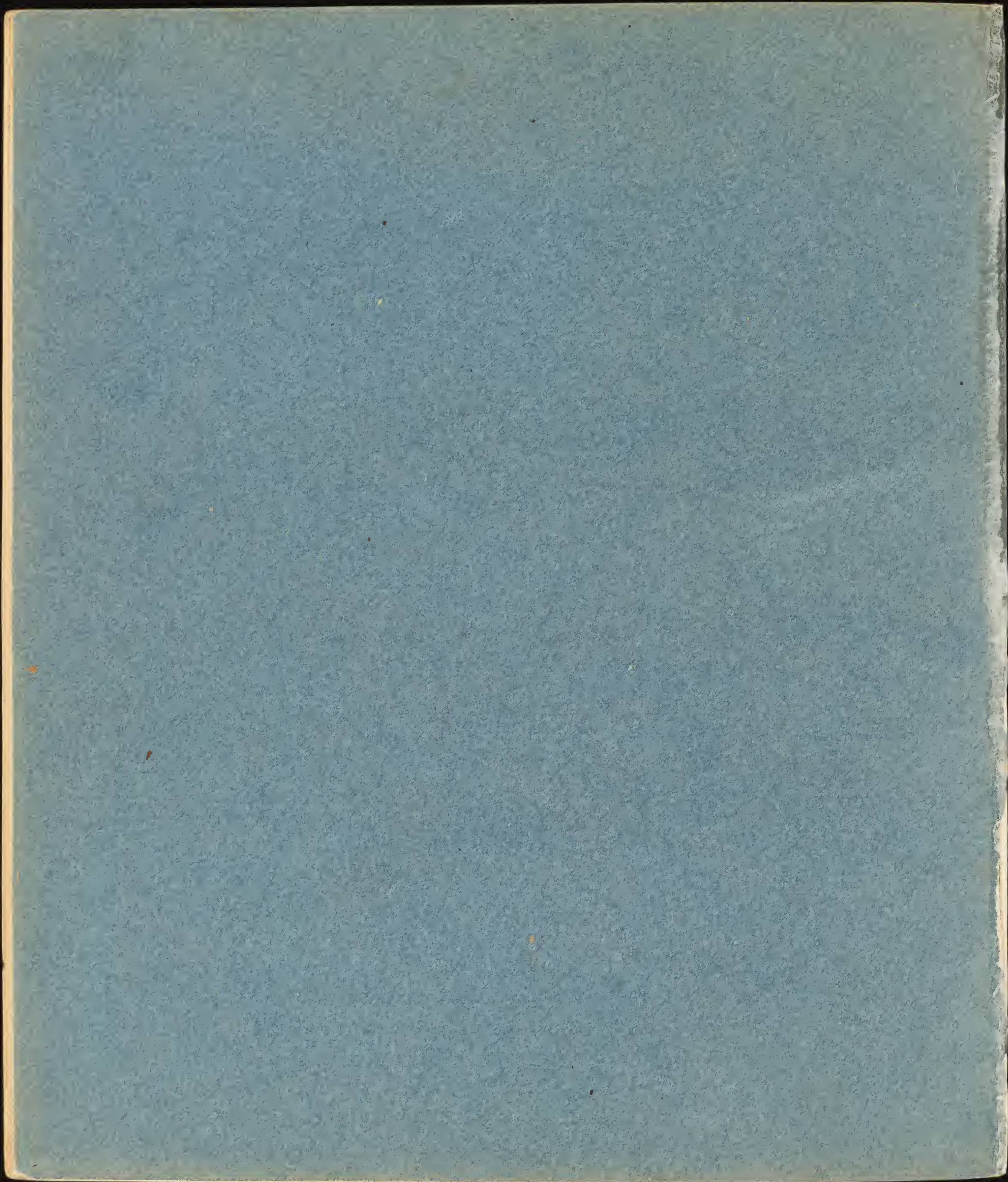
thistle leaved -
involucre scales
spinose. no rays -
flos bluish
white 1 ft high -
Baños &c

Peruvia? ----- invol scales
acuminate.
slender 6 to 10 in.
caul leaves
amplex. rad
petiolate obtuse
large teeth.
Baños

Barrandisia ----- orange flos,
common in
clefts of rocks
from Culucui
to top of crest.
fol. small.
shiny —

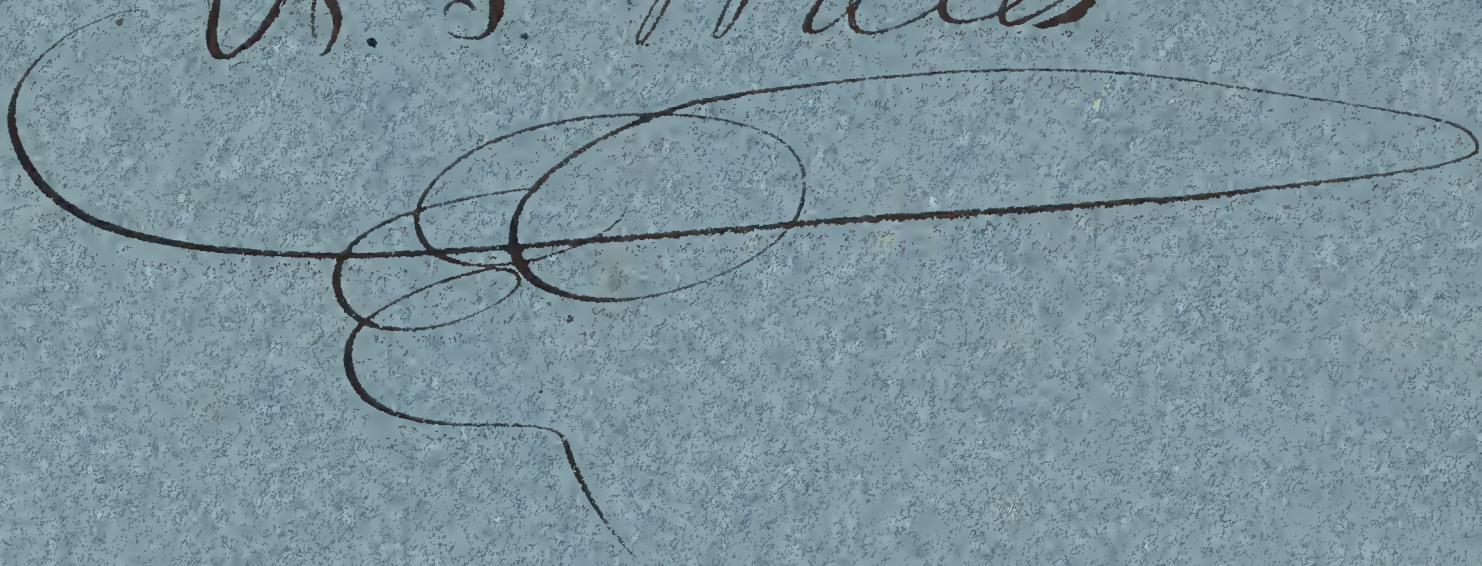
Guacium ----- long hairs.
Culucui —

" habit of venosum, long hair on leaves
small flos, with long blackish hairs — Baños



4
Peru -

N. S. Wales



Perru

Comp[?] --- tomentose linear lanc leaves invol 3 serial scales scarious like Gomphrena, not recollectd gathering.

gen. ¹⁹⁴⁵ --- 3-5 in, fol op pinnatisect, invol uniserial, about 6 scales, aken like carpels Ramunc pap. O-Chrajillo.

Dumerilia --- flos solit, purple rays, fol append 2 lobed, tomentose below, 2-3 ft. Chrajillo to below Yaso

--- " --- shrub 3-5 ft. flos corymb without rays fol pubescent both sides, Chrajillo & below

--- " --- shrub 5 ft. smooth stem & up surf leaves, below Chrajillo rather rare, flos not seen

Racasia spinosa? --- ornamental shrub, large purple flos, invol scales long toment, leaves & young stems somewhat toment. 4-8 ft. common below Chrajillo -

--- corymbosa? --- same leaves & habit, perhaps not dif. but flos corymb & no rays seen, cascade opposite Chrajillo

Polyachnoides --- fol lyrate pinnatisect anglex
auricul spreading lamate, below
Kulnai rare

Mutisia --- stem alate & ala dentate, fol almost
linear, sessile, auricul at base, below
Kulnai

--- fol pinnate. highly ornamental very
common at Chajillo & no specimen

Auracoid --- but pap pedicellate invol 2-3 serial,
1-2 feet, fol mostly radical - Chajillo

Borckhausoid --- habit N. Am. but pap sessile, fol
mostly radical lyrate dentate
smooth, 1-1 $\frac{1}{2}$ ft. ^{above} Chajillo

Leontodon --- stemless large flos, fol lanceol. slightly
dentate. Chajillo to Kulnai

Sonchus --- an oleraceous, introa - Chajillo -

Scobelia --- herb 2-3 ft. upright leafy, fol sharply
serrate, flos blue 1 $\frac{1}{2}$ inch long, in long
stem leafy racime: river bk above Gass -

--- " --- same habit but ^{orange} flos, common along
river bank, no specimens -

Gynanchoid --- fol smooth heart shaped, cymis trichot.
flos greenish white, below Chajillo -
scandent

Gonoloboid --- scandent, fol cordate, petiol. toment,
cal lacini linear, corol large, rest as
Asclep - Chajillo -

Bignonia --- woody, 5-20 ft ornamental, large purple
flos, cal 2-3 fid with dorsal promin -
fol simple obov serrate - below Chajillo

Escobedia --- ornamental shrub flos tube 2 in, lacini
corol obcordate, fol lance alt 4 in by 2
planted at Baños & Kulnai -

Dichondra --- lanate, fol broad reniform, below
Chajillo

--- fol large pedunc short, Baños

Convolvulus --- smooth fol cordate or hastate at base,
cal obtuse smooth; below Chajillo -

--- " --- long pubesc all over, cal longer
annulate, fol cordate petiol; Chajillo

Lanscuta --- Chajillo.

- Heliotropium* --- smooth, white fld, below Chajillo
 --- " --- blue fld: 1-3 ft of Amancaes
 n.g. --- pilosum R. & P. (Synoglos) 6-12 in carpels
 crested habit of *Mysotis* - Chajillo
Baronia --- fls capit smaller than in other, above Yaso
Solanum --- smooth ovate leaf, dense cymes, small
 fls and small red fruit below Chajillo
 --- shrub 4-6 ft. fol lunc petiol 5 or 6 in. fls
 in a spreading panicle, cal & corol toment -
 Baños
 --- like *nigrum*, but fol repand dentate
 pubescent, Baños if also Chajillo
 --- near *tuberosum* stem upright leaves
 pointed & larger, bluish fls, common at
 Baños.
 --- like *nigrum* Chajillo -
 --- fls very small 3-6 from each axill,
 fol $\frac{3}{4}$ in by $\frac{1}{2}$ petiolate entire, Chajillo
Cestrum --- like *ballao* but not annis fol broader,
 petiol broad at base, below Chajillo

- Lycopersicum* --- pubesc large spreading fls in long sparse
 racemes & broad bracts at base pedunc
 which 1 in. - Chajillo
Solanac --- branching rigid shrub 4-6 ft, opposite spines,
 fol oblong entire. berry, cal 5 toothed above,
 Chajillo
 --- " --- an ead? opposite spines and leaves, fol broad
 obov: petiolate serrate at apex toment berry
 cal persist - above Chajillo
Lycium --- fol atten obtuse $\frac{1}{4}$ in by $\frac{1}{10}$, cal slightly 5-toothed,
 branches about into long spines - Chajillo
Nierembergia glutinous pubescent, common at Chajillo
 of Amancaes
 --- 2^d sp "Chajillo" (B) -
Nierembergia id -- or *Browall*? 3-6 in, corol lacini very
 short, not spreading, above Chajillo
Solanac --- rigid branching shrub 3-6 ft, spines
 altern, fol entire altern obovate 1 in by
 $\frac{1}{2}$, berry and persist cal: above Chajillo
Sauvages? --- herbae diffuse, fol broad ovate petiol, fruit
 oblong ovoid. acuti, cal lacini ~~long~~ long acute

Atropa umbellata R & P. - fol cordate petiolate entire
2/3 in, corol tube 1 in, ornamental, below
Culucan

----- *Bicolor* R & P. - fol broad ovate acute at each end:
corol 3/4 in, broad dull red with
green tips, cal lacin broad short -
Chajillo & Baños -

Solanoid - - ornamental shrub 4-6 ft, fol
smooth entire elliptical, corymbs
term, petals white somewhat coriaceous,
abundant below Culucan -

Nicotiana - - near red sp of coast, fol narrower
flos greenish - Baños -

Ceanothus? - - broad cordate entire leaf white
tomentose below 8 by 5 in, 1 league
below Chajillo if Amancaes

Hyptis - - - cf *H. spicata* fol almost cordate, cal
5 equal lin teeth - below Chajillo

Scutellaria? - flos scarlet hairy 1/2 in, common at Chajillo,
very showy

Salvia - - - long scarlet flos broad bracts flos
solit, fol ovate serrate 1/2 in, below Chajillo

- - - - - scarlet very hairy corol floral bracts narrower,
stem at base rather smooth, fol broad at
base - Chajillo on road - below Yaso -

- *sagittata* R & P. - fol hastate calyx & large corol very deep
blue, ornamental, above Chajillo -

- - - - - flos blue, corol twice length of calyx,
fol broad ovate petiol, abundant at
Chajillo &

Salvioid - cal 5 long acuminate teeth, tube corol
scarlet 1/4 in. with slight obtuse
divis at summit, fol cord pet rugose
pubesc. - Chajillo

Gardoguinia? - - cal 5 equal teeth, corol 3/4 in long -
short equal segments, shrub 3-6 feet
fol 1/8 in invol white, below, common
at Chajillo & Baños -

Gardouquia --- cal 5 equal teeth corol $\frac{3}{8}$ in long
short equal segments shrub 3-6 ft
fol $\frac{1}{8}$ in invol white below common
at Obrajillo & Baños

shrubs 3-5 ft, cal bilabiate 3 above
and 2 below long cylind striate
flos scarlet 1 inch, fol broad ovate
sessile $\frac{1}{4}$ in, common at Baños ---

Mentha --- an introduced fol broad petiol, Obrajillo &

Stachys --- 6-9 in small, flos cal 5 short pointed teeth
pilose, fol broad ovate crenate lower petiol:
below leuluai ---

Puellia ? long tubular flos cal short, below
Obrajillo

Diclyptera ? corol twice length calyx spreading
at summit: flos crowded ---

Scippia ? --- pretty shrub 3-10 ft, cylind capit calyx
pubescent graceful mode of growth,
1-2 leagues below Obrajillo ---

Curbana --- fol incised abruptly atten at base lacini
cal long Obrajillo

Santonia --- decumbent shrub, orange flos all pilose ---
Obrajillo

Buddleja --- entire ovate leaves ^{white} ~~entire~~ lanate below,
green but pubescent ^{above,} ~~below~~ flos not
seen, shrub or small tree 10-20 feet. ---
above Obrajillo

Alousoa linearis --- narrow dentate leaves, common at Obrajillo
--- *caulialata* R & P. --- broad leaves, rather rare Obrajillo

fol 2 in by 1 dentate
Mimulus --- small yell flos 3-6 in, decumb, fol reniform
dent, wet places Obrajillo perhaps also
near coast ?

Thimanthae ? but fol alt, lyrate pinnatif, 6-9 inches,
flos orange, large showy, crowded at
top, floral bracts broad; Obrajillo.

Euchroma ? --- fol pinnatisect lacini very long linear,
pubesc, upper leaves purple; above
Obrajillo

--- fol 3-5 in at summit, lacini long lin,
smooth multicaul diffuse 3-6 in few large
flos; above Obrajillo ---

Bartsia --- cal & long acute teeth, bracts not
coloured, fol opp. sessile crenate
undul oblong broad at base; flos
2/3 in; above Chajillo.

Calceolaria ... like pinnata but longer segments, below
Chajillo

--- bicolor --- fol duply serrate broad at base, corol
yell and white; abundant at Chajillo &

--- " --- fol broad acute serrate, often by 3 subsessile,
flos rather small; below Chajillo -

--- " --- pubesc repand lobed leaves, below Chajillo
an caa Baños -

--- " --- fol duply pinnatisect - Chajillo.

--- " --- suffrutose branching pulverul toment. fol
oblong rather obtuse dentate - Chajillo -

--- " --- smooth glutin? fol lanceal serrulate short
petiol obtuse base 2 in long, upright 2-3 feet; -
below Culicai (C.P)

--- " --- toment fol broad dentate 1/2 in. Baños

--- " --- broad crenate petiol pubesc leaves; Baños
an caa Chajillo

Acrostis --- Baños an caa Ballas

Plumbago --- fol amplex auricul at base, blue flos,
ornamental, common below Chajillo
of Amancaes -

Boerhavia --- small purple flos, fol thinner than
Lima more diffuse pubesc; below Chajillo

--- " --- flos purple corol 2/3 in, ornamental;
common below Chajillo no specimens

Nyctagin? --- but fr inferior 5 angl, corol lacini duply
parted or distinct; fol opp pet entire,
suffr 3-5 ft. ornamental, few white floral leaves -
Chajillo -

Plantago --- pubesc, fol broad lance dent, wet
Chajillo to Culicai -

--- lin lance leaves flos large, below Culicai

--- habit of major pubesc dent leaves, Baños of Chajillo

Gomphrena --- capit purple, Chajillo common

--- capit dark purple almost blackish, common below Chajillo

Gomph? --- thick woolly. capit sessile small -
Chajillo

Peru.

Pratia - - - - - (of Lysipoma. Kunth)
fol ovate petiolate,
1/8 in - Baños on road
Casa Lancha -

Ruelloid - - - - - corol not seen. procor
slender 3 to 6 in. fol
oblong 1/4 in. ch,
slight dentic. cal
5 large leafy teeth,
base hairy - Baños

Suaeda umbellata - - - - - Baños to the
alpine region

Gentiana - - - - - many decumb't
stems. corol pale
Blue spreading,
cal lacini rec-
urved. Baños
to Alpine region

Aleca pinnata - B. & P. - - - Gaso and Baños N. H.

1 Myosotid - prostrate, flos axillary, young crowded as
3/4 to 1/2 inch long 1/10 wide - obtuse - Ba

2 Stachyoid - 6 to 8 inch - all toment. cal. lacin. spiny.
1/4 in long - above Ba

3 Atropoid? strag. herb. fol. alt. pet. cordate. entire s. pub.
fol. 1/4 inch long, and broad. flos 5 prt. not.
we. fol. angust
oblong. crenate.
Baños

Euchroma - - - - 3 sp, vilose,
slender, large

4 Plantago - fol. linear incan toment. 4 to 8 inch

5 " fol. broad integr. ciliate. flos pubes.

6 " 1 inch. sericeous, fol. linear. sps 2 to 3

covered with
hairs. Baños
to Casa Blanca

Paritaria - - - - close toment. fol
ovate 1/2 inch long
and broad. Culucui

Sisyrinchium - - - - 2 to 5 in, habit of
Nam. stem alat.
spathe not longer
than peduncle,
2 leagues above
Culucui -

Alstromeria - - - - 3 to 10 inches, slender,
fol invol, flos not
seen. (according to me
(Matthews solitary)
above Baños &c

Juncus - - - - like *Bufoinus*-
but only 1 inch -
wet grounds 2
leagues above
Culucui, below

Alcea pinnata - R. & P. - - - Gaso and Baños N. Ho

1 Myosotid - prostrate, flos axillary, young crowded at summit. fol linear 3/4 to 1/2 inch long 1/10 wide - obtuse - Baños, Culucui &

2 Stachyoid - 6 to 8 inch - all toment. cal. lacin. spiry. fol broad serrate 1/4 in long - above Baños.

3 Atropoid? strag. herb. fol alt. pet cordate. entire & pubescent. multicaul. fol 1/4 inch long, and broad. flos 5 prt. not seen. Baños
ve. fol angust oblong crenate.
Baños

Euchroma - - - - 3 sp, pilose, slender, large

4 Plantago - fol. linear in can toment. 4 to 8 inch. spikes few fls. Culucui &

5 " fol broad integr. ciliate. flos pubes. Baños

6 " 1 inch. sericeous, fol linear. spks 2 to 5 fld. Baños - if prior?

covered with hairs. Baños to casa grande

Paritaria - - - - close toment. fol ovate 1/2 inch long and broad. Culucui

irivichium - - - - 2 to 5 in, habit of Nam. stem alat. spathe not longer than peduncle, 2 leagues above Culucui -

Alstromeria - - - - 3 to 10 inches, slender. fol invol, flos not seen. (according to me

(Matthews solitary) above Baños &

Juncus - - - - like *Bufo* but only 1 inch - wet grounds 2 leagues above Culucui. below

Alcea pinnata - R. & P. - - - Gaso and Baños to the Alpine region.

Bartsia - - - - - Baños on road Obrajillo? -
all toment. small flos. fol angust oblong crenate. Baños

Euchroma - - - - - 3^d sp, vilose, slender, large flos. Baños

Urtica - - - - - crowded leaves covered with hairs. Baños to Casa Grande

Parutaria - - - - - close toment. fol ovate 1/2 inch long and broad. Culucui

Sisyrinchium - - - - - 2 to 5 in. habit of Nam. stem alat. spathe not longer than peduncle, 2 leagues above Culucui -

Alstromeria - - - - - 3 to 10 inches, slender. fol invol, flos not seen. (according to me (Matthews solitary) above Baños &c

Juncus - - - - - like *Bufo* but only 1 inch - wet grounds 2 leagues above Culucui: below

Syntherisma like *spicata* 6 to 9 inch. long hairs on stem - common above Baños &c.

Cary - - - - - habit of *ovalis* -
3 to 6 in. spikelets
about 5 at summit -
scals acute above
Baños rare.

Clacharis 2 to 3 in multicaul. below culm

Festuca - - - - - 1 to 1 1/2 feet.
small flos.
no awns.
Baños

Poa - - - - - habit of *Alpina*
large flos. large loose sheaths. Baños.

Stipa - - - - - very small flos.
8 inch - habit
of *calamagrotis*.
1 to 1 1/2 feet. Baños

Trisetum - - - - - like *subspicatum*.
smooth flos. 6 to
12 inches. Baños

Agrostis - - - - - 3 to 6 inches ^{coarctate} ~~cord~~
panic. flos very
small. Baños

Calamagrostoid - - - - - 18 inch. cespitose,
genic, awn hairs
at base cordate
cal smooth. fol
radical, strict.
above culm
2^d sep large glumes
1 to 1 1/2 feet. Baños?

Calam - - - - - no awns, large
cal, very short
corol, with hairs
at base, congest
panic 1 to 1 1/2 feet.
Baños

Anthracina? - - - - - 3 inch, densely
covered by chappa
flos not seen. clefts of rocks Baños

Achrostichum - - - - - lanceolate
long pedicell.
fronds 9 to 12 in
fr not seen -
clefts of rocks
Baños -

Asplenium - - - - - minute 1/3 inch
cuneat. undul
tenuis, clefts
of rocks Baños -
3 inch dissected
cuneate leaves -
clefts of rocks -
near trichomanes
seign road unequal
clefts of rocks Baños

Polypodium - - - - - large woolly
calyptra - Baños

Caltha - - - - - cogen of appendicul.
fol long petiol, trifid
at apex obtuse, flos
not seen, Casa
- - - - - Cancha

Condamine - - - - - *bi* - - - - - near *tristata* -
apparently same
as ~~*tristata*~~ *Culicari*
Casa Cancha -
- - - - - perhaps diff
away 1 inch.
mixed with
other plants
in wet grounds -

Draba - - - - - oblong pubescent
pod, an ead
Culicari
short Broad
pod. fol 1/8 inch.
long obtuse, Alpacamarca
96

Dryasimbrium (vis) near *canescens* - crest between Casa
 Alherlerioid cal 5 fid. cal 5 valv. alpine habit. 5 stamens
 solitary, short pedunc. Casa Cano
 2^d. foli imbric. 1/10 inch, lin obtuse, flos not seen
 3. perhaps same. flos terminal abespilo. etc

verruarum ----- 2 to 4 inch pubescent,
 fol oblong broad,
 base acute. Casa
 Cancha

Lycnis ----- near diocis pub,
 heights above
 alpamarca

Malvac ----- stemless, flos
 1/4 inch diameter,
 white with blue
 base, no cal.
 fol plicate
 dent broad
 petiolate.
 Casa Cancha

11 fol renif. 10 lobed. no calyx, about 5 carthels villous at apex, stems
 fusiform root. fol 1/4 inch long, 5 broad. Alpamarca.

PERU.

Geranium ----- stemless, flos congest. pubescent
 fol petiolate many obtuse
 lobes; Casa Cancha

----- glaberr, almost stemless,
 fol about 7 obtuse deep lobes
 sepals pubescent on margin
 fr smoothish; Casa Cancha

Astragalus ----- white hairs on leaves, fol
 10-13 jugis; Casa Cancha
 ----- fol pubescent about 12 jugis
 rather large, stems shorter than
 leaves, downy calyx; Casa Cancha

----- 3 ----- foliol smaller about 10 jugis,
 thick, woody root, multicaul,
 pods inflat 1/4 inch; Casa Cancha
 ----- densely congest foliol 1/20 inch
 rather smooth, about 10 jugis,
 flos blue solitary; Alpamarca

Drysimbrium (bis) near *canescens* - crest between Casa Candha & Culuar -
Scheuchzerioid cal 5 fid. cals 5 valv. alpine habit. 5 stamens? rigid pointed leaves - flos termin
 solitary, short pedunc. Casa Candha

2^d. foli imbric. 1/10 inch, lin obtuse, flos not seen - same habit. Casa Candha.
 3. perhaps same. flos terminal spike. whals 5. Alpamarca

verruarum ----- 2 to 4 inch. pubescent,
 fol oblong broad,
 base acute. Casa
 Candha

Lycnis ----- near diocis pub,
 heights above
 alpamarca

Malvac ----- stemless, flos
 1/4 inch diameter,
 white with blue
 base, no cal.
 fol plicate
 dent broad
 petiolate.
 Casa Candha

11 fol renif. 10 lobed. no calyx, about 5 carthels villous at apex, stems
 fusiform root. fol 1/4 inch long, 5 broad. Alpamarca

PERU.

anissum ----- stemless, flos congest. pubescent
 fol petiolate many obtuse
 lobes; Casa-Candha

----- glaberr, almost stemless,
 fol about 7 obtuse deep lobes
 sepals pubescent on margin
 fr smoothish; Casa-Candha

Ustragalus ----- white hairs on leaves, fol
 10-13 jugis; Casa-Candha

----- fol pubescent about 12 jugis
 rather large, stems shorter than
 leaves, downy calyx; Casa Candha

----- 3
 foliol omnellu about 10 jugis,
 thick, woody root, multicaul,
 pods inflat 1/4 inch; Casa Candha

----- densely congest foliol 1/20 inch
 rather smooth, about 10 jugis,
 flos blue solitary; Alpamarca

76 *Sagina* ----- sepals 5, fol
long linear 1 inch,
Casa Cancha

Cerastium ----- 2 to 4 inch, pubescent,
fol oblong broad,
base acute. Casa
Cancha

Lycium ----- near diocesis pub,
heights above
Alpamarca

Malva ----- stemless, flos
1/4 inch diameter,
white with blue
base, no cal.
fol plicate
dent broad
petiolate.
Casa Cancha

11 fol renif. 10 lobed. no calyx, about 5 carpels villous at apex, stem
fusiform root. fol 1/4 inch long, 5 broad. Alpamarca.

Peru.

Geranium ----- stemless, flos congest & pubescent
fol petiolate many obtuse
lobes; Casa-Cancha

----- glaberr, almost stemless,
fol about 7 obtuse deep lobes
sepals pubescent on margin
fr smoothish; Casa-Cancha

Ustragalus ----- white hairs on leaves, fol
10-13 jugis; Casa-Cancha

----- fol pubescent about 12 jugis
rather large, stems shorter than
leaves, downy calyx; Casa Cancha

----- 3
foliol smaller about 10 jugis,
thick, woody root, multicaul,
pods inflat 1/4 inch; Casa Cancha

----- densely congest foliol 1/2 inch
rather smooth, about 10 jugis,
flos blue solitary; Alpamarca

Leg --- 2 inches, vicia habit, but pods reverse,
little exceed cal, fol 3 jugis & no term
tendril, flr short pedicell axill, among
Casa Banche - pl not collected

Lupinus (bis) --- stems recurved rigid 1-2 inches, pods 1/2
inch hairy, foliol 5-7 bracts broad flos
blue; Casa cancha same below -

--- 3-4 in, foliol 9-10 linear acute covered
long soft hairs, flos in dense raceme,
shorter than leaves; Alpamarca

Alphanes (bis) --- dwarf. caespit. Baños & Alpine ground
(but not in catalogue)

Epilobium --- habit of Alpinum, fr pedicellate,
foliage ellipt, ^{interj} 1/8 in.

Myriophyllum (bis) --- lake on crest of Andes
and Culuai.

Paronychia --- 2 sp foliage linear 1/8 inch,
~~acute~~ acuminate, large
scarious stipules about
flos, sepals upper 5 in fr---

--- styles 2? common in Alpine.

Cact --- 3 sp with stony seeds, more woolly than
last, seeds fruit and whole plant
large, depressed bundles, common
at Casa Banche

Saxifraga peruviana --- shrub - pubes fol alter
trifid, sometimes in exposed
situations stemless, and
simple leaves; rocks above
Casa Banche, Alpamarca

Ferula --- 2 mexican oblong 5 cost; multifid
leaves, umbels simple, involucre
about 10 leaves; Casa Banche

Fragaria multifida --- common on from Casa
Banche to Culuai.

--- ? --- fr subrotund sulcate
1/15 in long, commis
broad mostly 1 fld

pointed caespit:
Casa Banche) foliage linear a little
broader in middle,

1st 2nd sp with entire leaves, foliage
large lanceol. dense toment, above
crest of Andes

Galium (bis) --- same as one of Baños de
Valeriana --- scapes nudis 2-3 in, fol lanceol
spatul; casa lanca

--- scap 2, broad entire leaves, fol.
rad. succul. lanceol. attenuate
entire 1-4 in, flor in globe or ovoid capit.

Alpamarca

perhaps diff from 1st capit sessile
linear obtuse leaves; crest of the
Cordilleras

gen valen --- root fus. fol 1 in long & broad
obtuse, with flos in centre congest
into sort of cake, even with
surf; esculent; above Alpamarca

Bacharis --- depressed linear entire obtuse
leaves 4/8 in, capit large solit;
casa-lanca &c

--- depressed fol obov 3-5 toothed punctate
flos large axill; alpamarca &c

--- depressed, fol obov cuneate with a few
teeth, capit large glutinous ---

--- depressed fol spatul obtuse coarser
and thicker than 1st, long pappus;
crest of the Andes.

Erigeron? --- 1 inch multicaul 1 fld, fol ~~narrow~~
spatul pubesc; casa lanca ---

Cocopsis (bis) --- casa lanca appar same as
Chajillo but only 4 in dissected
leaves.

Graphalium --- stemless, capit with long
pointed dark green scales,
fol obtuse 1/4 in, stems 5-6
fld. in buds, ~~capitosa~~ casa le
--- resembles preced but smaller
and fol sometimes green above,
flos not seen, in buds. cespitose
casa lanca

--- means lanceolate leaves and flos crowded,
invol scales silvery; casa lanca ---

Peru.

Gnaphalium ----- 2-3 in in cano lanate capit
crowded blackish, base lanate
crowded leaves and flos, lanate
fol very small, capit rather
large, brown scales; base lanate
cespitose stemless, or rather
subterranean, flos minute
solitary sessile, fol obov entire
1/4 in long by 1/8 ~~obtus~~ ~~also~~
~~recurved~~ recurved almost
smooth; crest of Andes
in beds, fol broad obtuse
1/4 in long by 1/8 obtuse also
toment, flos solitary sessile;
crest of Andes -----

Senecioia ----- 3rd sp cogen of (42) stemless cespit
no rays, fol linear 1/2 in
base lanate
(43) ----- same as (42) basos base l
and Alpananca -----

----- 6th near 5th flos larger as well as involucre
lacin, wh more acute, stems 1-2 inches,
fol same densely crowded, Alpananca
----- 7th cogen of last? no rays, suffrut 6-9 in
short toment, fol lanceol, invol integrs,
Alpananca -----

Senecioia ----- cogen (44) stem 3 to 5 in, branch at base,
puberal papilose, invol biserial
scales lax; crest of Andes of Baños

Senecioia ----- cogen (45) fol long smooth above
1-1 1/2 ft many fld; western declivity
of crest

Senecioia ----- (46) Gnaphalium habit fol in cano
toment broad spath, pedunc term
1 fld, invol biserial, flos 3/4 inch
diam: Alpananca

----- 2nd sp 4 to 10 in, in beds, fol narrow
obtus no rays, invol biserial,
extem 5 or 6 long lin lacin; base l

----- 3rd sp like 1st but fol narrower
longer 2 in, invol scales narrower
Alpananca } and more numerous, thicker toment;

4th sp, large flos dense toment stem,
 1 in, fol broad ovate acute at each end
 petiolate; crest of Andes near Casa Cancha
 5th sp, habit of culcitum, 6-9 in, fol
 lanceolate upright lance, undul, flos
 4-6 invol biserial; west district crest.

Senecioia ... habit of preced invol simple about
 13 scales: scape 2 in, fl 1/2 in diam;
 crest of andes near Casa Cancha

Senecioid? ... congen (5?) stemless, long yellow
 rays, invol biserial, outer scales
 broadest, fol broad ovate crenate
 rusty below; Casa Cancha

3rd sp larger flos, fol all toment
 and white below: Casa Cancha

Senecioid? ... stemless large yellow flos rays
 invol uniserial about 20 lacini
 smooth. fol broad lyrate dent
 Casa Cancha

11 ? invol spreads - stemless - lanceolate toment, fol broad ovate dent.
 petiol 1/2 in broad & long. Casa Cancha

stemless flos large yellow, invol simple
 about 15 lacini, fol lance obtuse woolly
 base; Casa Cancha.

1 fld stemless, invol about 13 long lacini,
 flos 1/2 in diam yell rays, fol linear
 long hairs at base; Alpanarca

Senecioid ... multicaul 2-4 in, fol divid granules
 four cylind invol simple broad
 pub scales, short white rays;
 Alpanarca

Comp ... near Senecio same gen Chile Andes,
 stemless invol monophyll, 8 short
 teeth whitish ^{rays,} leaves linear; wet
 Casa Cancha

2 sp, large smooth rigid pointed
 leaves, invol monophyll 10 teeth.
 Casa Cancha

3rd sp stemless smooth 1 fld invol of
 13 scales, fol obtuse apex ciliate;
 Alpanarca

----- stemless smooth, large blue flos,
fol lanc spatul obtuse succul;
casa cancha & invol 10 or 12 dent

----- congen but no rays pin, in heads,
invol monophyll, rush lancea
subulate, capit small; casa C gerot.

Comp --- invol monophyll stemless, large flos,
fol long hair, narrow above entire congest,
Casa Cancha

Comp (Lactui?) --- (50) stemless, very large flos, invol
3 to 4 serial, fol spatul
lanceol integerrim; Crest of
Andes near Casa Cancha

Peruvia ----- stemless, fol pinnatisect ciliate,
and invol scales ciliate mucronat
Crest of Andes near Casa Cancha

----- an ead? fol pinnatifid astragaloid
lobes involute imbricate ciliate
flos not seen Alpanamarca

----- stemless 2 or 3 fls, fol lyrate dent, 2 inch
long, invol 2 or 3 serial, scales obtuse.
Alpanamarca ---

Chatanthroid? --- 0! multicaul 2 to 4 inches,
invol 3 to 4 serial scales
leafy, rays inconspicuous,
fol lanc, sharp teeth
apex; Casa Cancha -

Barnadesia (bis) --- culm to crest of Andes
heights above Casa Cancha &

Comp --- congen of Chili Andes, fol imbric entire
cartilag concealed by wool, involucre 2
serial scarious 0? Alpanamarca

----- perhaps congen exceedingly minute, though
forming large tufts, fol very small crowded
entire scales so that each branch is
cylind 8 to 10 in diam fol concealed by
wool, though smooth, fl solit term
minuti apparently 10 uniserial scales;
Alpanamarca ---

Sida?

copy of a Robinson's
flos blue, fol pinnat.
^{divid. tomentosa}
common all over

Alpine ground

apparently 2^d sp,
smaller flos,

fol pinnatisect
close pubescence,

also common

Malvac

1 in. in upright

scarlet pet, almost

stemless 1 fld, fol

^{no cal.}
pinn white below;

Casa Cancha rare

stemless flos size

Taraxacum, white

or pale pink,

invol 2 serial,

fol lance, lyrate

dentate. Casa

Cancha

(2 pages mixed)

Lactuceae

Cancha

Sact

invol cylind.
imbric 3 to 4
^{lin obtus scales}
sepal stemless,
fol lanceolin;
Casa Cancha

Pratia

cf Baños
narrow obtuse
leaves; wet
Casa Cancha

Suertia umbellata (bis)

Baños and
Alpine ground

Gentiana

woody root
multical 2 to 3
in ^{or under} fol oblong 1/4 in
recurved, cal
^{broad, come spread}
lacini, Casa
Cancha.

multicaul 2
to 3 inch. lacini
cal acute. blue
corol deeply pent.
Casa Cancha

dark spot at base laciniato

Gent - 3 to 4 inch. corol large 2/3 inch deep cleft. fol ovate semile. cal lacini obtuse deep cleft.
Casa Cancha.

Gentiana

fl short 1/8 in.
^{broad}
short spreading,
multicaul
1 to 2 in. cal lacini
^{fol lin obtus}
obtus. Casa
Cancha

corol red 2/3 in long
scape 1 in. fol
spatulate lance
1/2 inch long,
Casa Cancha

corol rotate, at
sum 10 cleft.
lacini all blue
and white,
ornament. fol
^{cal long & acute}
linear. Casa
Cancha

2^d sp with hoath
short trig. cal lacini
^{cal lacini trig. obtuse}
in tufts, like
last ornamental,
Alpamarca

Bartsia - - - - - same as small
fls. ^{Baños} casa cancha

" - - - - - 2 to 3 in. fol smaller, more close pubes. flo larger than cal; Casa C.

Euchroma - - - - - 2 to 3 inch smooth,
fls rather small,
up leaves not
coloured, Casa
Cancha - - - - -

Jovellana ~~plantaginosa~~
fol very hairy above.
scapes 3 to 4 ind. caps pubes. large fls. lacin
cal broad. crest of Andes near
Casa Cancha.

Jovellana ~~plantaginosa~~
with denticul
leaves with
mucilage in
splits of rocks

Plantago - - - - - (a) - - - - - same as Senecio
at Buenos Casa

" - - - - - 2? sp near P. irradians of T. del fuego. fls not seen
heights above Alpanamarca.

Philoxerus - - - - - caespitose, and
entire alpine
habit, fls in
tern oblong
capit. fol spat.
obtain 1 1/2 inch -
(crowded, crest of Andes)

Urtica (bis) +

same as Baños. crowded leaves. Casa Cancha.

Ephedra (bis) - - - - - Casa cancha to Obrajillo

Goodyeroida - - - - - perhaps distinct
from Obrajillo -
fol distinct from
stem, broad ovate
1/2 inch, loose sheaths
1 to 2 inch -
Casa cancha - - - - -

Restiac? - - - - - stemless, fr ovoid
fol 1/3 in, rigid
painted; in wet
places crest of
Andes - - - - -

Juncus - - - - - Bufonius like:
4 to 5 in, wet decli
vity of crest, below
Culicai - - - - -

Cleocharis - - - - - 4 to 6 in, an ead
culicai Casa
Cancha - - - - -

Poa - - - - - caespitose. 2 to 4 inch - spikelets small 2 fls. compressed, panic
coarctate. Casa Cancha.

Poa ~~me~~ ----- near P. annua
2 to 3 inch 2 fld;
casa cancha.

Festuca ----- 2 to 3 in like bron-

" (2^d sp) corol. glume coria. apicul. panicoides, spreading
coarctate-cespit. fol strict, mostly rad. } panicle; ~~like~~
near snow 2 leaf from Casa Cancha. } casa cancha

Deschampsia ----- like cespitosa
casa cancha
2 to 3 in, longer
flos, glaucous.
casa cancha

Stipa 2 ----- 2 to 3 inch, cespit,
small flos
~~casa cancha~~
Casa Cancha
small flos

Calamagrostoid ----- 1 to 2 in flos con-
gest, awned, hairs
at base corol, fol.
pubesc; Casa Cancha

Agrostis? ----- 1/2 to 3 in corol glume
very small, Alpananca

" ? - 2 to 3 in. coarct panicle. fol filif, curved. awn of corol not used cal. ^{Alpine region}
Bromus ----- 6 to 10 in, about 3 fld;
casa cancha

----- habit of N. am. pubesc
spikelets, long awns,
2 part - clefts of rock,
above casa cancha
6 in. habit of Festuca
bron: casa cancha
an caa Obayillo.

? ----- 3 to 6 in, thick woolly
spikelets, short
awns; casa cancha

Hordeum ----- 3 to 6 in, habit of
arkansas sp. crest
near casa cancha

ignot ----- perhaps cryptogam
ledge masses, fol
minute crowded scales
^{like twisted cords.}
spiral; heights above Alpananca

Filices (bis) - - - - - some species
in clefts of
rocks above
Alpamarca

E. Australia.

Ranunculus bulbosus? - - - - - Bewen Bewen, some
times in wild situa^{tions}
fol multipia fr
beaked, flos mid
size, yellow, wet
places lower than
Huntn. - - - - -

Clematis ^{of} aristata R. B. - foliol ovate entire
about 3 nerved,
ravine near
Bewen Bewen

Hibbertia - - - - - of volubilis, fol
pubescent, below
mouth of Huntn
also Sydney -
dentata - - - - - flos less conspic,
Sydney also
Hawara -

Plumandra - - - - - linear leaves,
lower Huntn.
shrub, short
smooth leaves
like oxycoc
Sydney B. -
short linear
leaves serrate
in 3^d Sydney
smooth seeds,
Sydney B. -
fol almost linear in stem
pub; Sydney B. -

meoid short
linear leaves,
flor term solitary,
Sydney B
fol oblong
white silky
below, cat
segm narrow
acute, Sydney
small, Broad
ellipt leaves.
Sydney B
fol spatul
obtus pubesc,
Bewer Bewer

Andra squamasa --- cult in Mr
M^r Learys
garden, pt.
not seen.

Eupomatia --- --- --- flos large,
white solitary,
cal opening
by lid, foliige
alternate,
entire, large
shrub, highly
odorous. Ill R.

Cocculus-vine, cordate peltate leaves,
no flos or fr.
Bewer Bewer
" perhaps different peltate leaves. Sydney.

Lepidum --- --- --- 1 to 3 feet, up leaves
linear, abundant
at Bewer Bewer
and vicinity.

Senecioia didyma --- --- --- naturalized
at Newcastle

Viola ----- speckled,
common at
Newcastle and
Sydney
2 sp simply
ovate leaves
Sydney B-

Sonch ----- upright 1 foot
common at
Sydney -

Drosera ----- like *sumatralis*,
1.5 + 1.5

Drosera - minute, single fls. scarious chaff in cont of leaf. Sydney.
" like *anglica*. stem genic at base, cuneate fol. "
" * most minute yet known. 1 minute fls, leaves enveloped in
scarious chaff

Sydney -

Conospermum ----- 1 to 2 feet high
common at
Sydney -

Polygal ----- low scrubby
habit, foliage
linear lance,
fr like *Capsella*,
single terminal,
Sydney B

Tetratheca ----- common at
Sydney and
Ornamental

Tremandra? ----- local segm, 4
pet, octand,
fol lin toothed
apex, sub opposite
or verticill; Sydney -

Viola ----- species,
common at
Newcastle and
Sydney
2 sp simply
ovate leaves
Sydney B-

Sonch ----- upright 1 foot
common at
Sydney -

Drosera ----- like *sumatrensis*,
but taller.
Bogs near
Sydney B -
----- *pedata* ----- fol deeply furcate
fls Indian, 1 ft.
common near
Sydney -----

Comespermat ----- 1 to 2 feet high
common at
Sydney -

Polygal ----- low scrubby
habit, foliage
linear lance,
fr like *Capsella*,
single terminal,
Sydney B

Tetratheca ----- common at
Sydney and
Ornamental

Tremandra? ----- local segm, 4
pet, octand,
fol lin toothed
apex, sub opposite
or verticill, Sydney -

Billardera laevis ----- New castle
and Sydney
common
----- perhaps same
but seeds
smoother
"Mawana" Rich

Pittosporum ----- if undulatum?
shore of
harbour in
wild situation

Bursaria spinosa - spiny small leaved shrub. Puen Puen.

Stellaria ----- weak habit
of a gramineae
Puen Puen
----- philocissoid,
wild places
at Mawana

Stellaria - habit of *Drypis* - pointed acute leaves not very rigid; Puen Puen.

Cerastium? ----- upright rigid
branched fol.
short lin; Puen
Puen common

Arenaria ----- of Mawana,
Mawana riv.
near Mawana;
Puen Puen
perhaps not
native

Mollugo verticillata? ----- coast at
New castle,
probably introduced

Linum ----- annual,
linear acute
leaves, common
at Puen Puen

Sinum - lim. fol. if also precede Hawaii

Sida? Linn. g. yell. flowers;
Puen Puen -

" - weak decumb. habit of Potentilla ~~leaves of~~
canes. broad dent leaves. Puen Puen.
~~Also found Hawaii~~

Abutilon - - - - - fol cordate elongate
pubescent, Newcastle

" - ? - - - - - cal elongate soft
pubescent, Sydney

Malvae - - - - - outer cal about
10 fid, caps roundish
apex, purp flos,
near fol lance
dentate; hills near
Puen Puen.

Hibiscus - - - - - Banks of lower Hunter
only seen from boat - large
showy flos. called also "Curryong"

