

581.9415

H25f

THE UNIVERSITY
OF ILLINOIS

LIBRARY

From the collection of
James Collins,
Drumcondra, Ireland.
Purchased, 1918.

581.9415

H25f

OAK ST. HDSF

F. E. H. H.

THE
FLORA OF HOWTH.

WITH MAP AND AN INTRODUCTION
ON THE GEOLOGY AND OTHER FEATURES OF THE
PROMONTORY.

Henry H. H. BY
H. C. HART, B.A., F.L.S.

DUBLIN:
HODGES FIGGIS, & CO., GRAFTON STREET.

1887.

581.9415

H 2 5 F

AS A TOKEN OF
MY APPRECIATION OF HIS HELPFUL FRIENDSHIP,
WHICH HAS BEEN FOR MANY YEARS LARGELY DRAWN UPON
IN MY BOTANICAL STUDIES,
I DEDICATE
This little Volume
TO
ALEXANDER GOODMAN MORE.

435915

INTRODUCTION.

THE parish of Howth comprises an area of 2,670 acres. It is situate in North Latitude $53^{\circ} 23'$ and West Longitude $6^{\circ} 4'$. It consists of a rocky, hilly promontory and a narrow, sandy peninsula, the village of Howth being on the north side of the former, at a distance of nine miles from Dublin. The greatest elevation is 560 feet above sea-level. The 200-foot contour line includes the major portion of the hill on the south, south-eastern, and eastern sides. The circuit of the promontory from the narrow part of the neck of the peninsula is about nine miles by the line of coast, that of the entire parish a mile or two more. The small, rocky island of Ireland's Eye is included in the parish of Howth. It lies to the north of Howth about a mile from the mainland, and the same in circumference. Its northern cliffs are bold, and reach a height of two to three hundred feet.

The hilly part of Howth is composed of greenish and reddish grey slates and grits, with considerable belts of nearly white quartzite and occasional dykes of trap. These rocks are probably of the same geological age (Cambrian) as those of Bray Head. On the western side of the hill these rocks disappear beneath the unconformably placed beds of pale grey fossiliferous Carboniferous limestone of the lower

division, which reach from Howth village round to Sutton, where the contact of the two may be observed. West of these, again, we come to the neck of the peninsula, which is a low belt or raised beach of sand, gravel, and drift, corresponding with the so-called 12-foot beach of other parts of Ireland. On Ireland's Eye, at the S.E. corner, slates of probably lower Silurian origin rest unconformably on the Cambrian rocks.

The soil and surface conditions are thus of a very varied nature. The central part of the hill is marshy, and smaller swamps, as well as two or three streams, occur in other parts. Turf of slight depth, with heath, forms a covering, in some places, to the barren quartzite rock which of all rocks is the most intractable, and yields the worst soil for agricultural purposes. In most parts, however, the soil is well supplied with aluminum and alkaline substances, and fairly fertile. Sandy pastures and alluvial deposits prevail on the western side, while at the north-west a stretch of sand-hills occurs. On the eastern and southern sea face the scenery is composed of an imposing and varied wall of cliffs and steep sea-banks from one to three hundred feet in elevation, which afford protection to several interesting forms of bird and plant life, and admirable opportunities for a difficult scramble in their search. On the northern side of the hill is situated the wooded and lovely demesne of Lord Howth, while elsewhere, especially on the south and south-western sides, farming operations are carried on with the highest skill.

It will thus be seen that the requirements for plant life are well supplied. There is ground for maritime

species, woodland species, moorland species (on a small scale), and dwellers in marsh or on sand-hills. Also, although there is cultivated soil to afford harbourage for numerous agrestal colonists, and opportunity for the introduction of denizens and aliens, fortunately a large portion of the hill still remains in an "unimproved" condition, where a visitor from the metropolis may feel himself entirely divested of human surroundings, and where many a shy and pretty wild flower is still to be found.

Howth has many attractions. As a sea-bathing summer retreat its equal cannot be found in Ireland. We are, however, more concerned with its scientific resources. Its archæological interest lies in a cromlech in the demesne of Lord Howth, in the ruins of an early abbey in the village of Howth, and the earlier church or chantry of St. Fintan's on the Sutton side, with its holy well, and also in the ancient castle called Corr Castle, of the Barons of Howth. On Ireland's Eye are the remains of a church of the sixth or seventh century.

To the naturalist whose pursuits are other than botanical the parish appeals in many ways. Seafowl of several sorts—the puffin, the razorbill auk, two kinds of guillemot, and herring and kittiwake gulls—breed in limited numbers in a few places, where their nests are almost inaccessible. Occasionally the raven and the peregrine falcon select Howth, occasionally Ireland's Eye, for the same purpose. It is not a great many years since the chough and the rock-pigeon inhabited the cliffs of Howth; and in land species the night-jar is a regular nesting visitor, while, on one occasion certainly,

within the last four years, the woodcock brought out its young, which were, however, unfortunately destroyed by magpies. Entomologists have long known Howth as a happy hunting-ground for certain forms of Lepidoptera. A moth of the genus *Dianthœcia* (*D. Barrettii*) is held to be peculiar to Howth; but I believe my friend Mr. Kane has recently discovered it on the coast of Waterford. Two others of the same group (*D. cæsia* and *D. capsophila*) are also of interest from their rarity in the British Isles, not being found in England or Scotland. The marine zoologist will find abundant material to occupy his attention, provided always he be supplied with the means of dredging. Amongst sea-worms and sea-anemones several rare forms have been captured off Howth. Uncommon sea-shells of several kinds exist round the coast, especially on the Ireland's Eye side. Many of these may be picked up on the Portmarnock strand, but fewer on any of the Howth shores, which are mostly steep and rocky. I have gathered thus about 125 species.

In the lower families of the vegetable kingdom (excepting the Sea-weeds) there is less scope, perhaps, for research, on account of the comparative dryness of the atmosphere, than in other parts of Ireland. In Mosses, however, one species (*Phascum bryoides*) is peculiar, not having been found, I believe, elsewhere in Ireland. Irish Fungi are too little known for me to refer in any way to their distribution; no doubt my friend Mr. Pim will before long have effaced this reproach.

I will now proceed briefly to analyze the list of Flowering-plants and Ferns occurring on Howth. A

few preliminary observations with regard to the manner in which this list has been formed will be advisable.

The list is entirely the result of my own personal explorations during a number of seasons for the last twenty years. Very few of those years passed without some observation, and during most of them my visits were either numerous or else extended over a considerable part of the summer. In several cases I have had to exclude species erroneously recorded; but this has only been done when either the error was an obvious one or else the most persistent and repeated search failed to verify an original record. The negative assertion that a plant does *not* grow in a district is a dangerous one, and can only be ventured on where the area to be worked is, like the present, of small extent.

Howth has been at all times favourite ground for botanists. Threlkeld, who published the earliest work on the Irish Flora in 1727, mentions Howth more than once, as, for instance, under the "*Narcissus Sylvestris pallidus calyce luteo*, wild Daffodil; . . . it grows under the skirts of the Hill of Hoath." In the last century Wade also botanized on Howth, and recorded plants therefrom. And since them Mackay, Dalton, Miss Bailey, and various others have given, in some form or another, information on the subject. As pamphlets which deal specially with Howth, but unfortunately contain many erroneous statements about its botany, may be mentioned—"A Day at Howth," by F. Huband Smith, 2nd Edition, 1857, and "Rambles on the Irish Coast," by W. H. Baily, 1887.

The Flora of Howth is of particular interest in

two special ways: (1) from the rarity of several of the species found; and (2) on account of the large number of forms assembled in so small a space. My list contains 545 species, of which 25 are undoubtedly introduced. Other introduced species with less claim to a place in the list are given in an Appendix. The remaining total of 520 species is probably above the average—certainly as regards Ireland—for a district of about four square miles in the British Islands.* If we take the total for Ireland to be 950 species (“*Cybele Hibernica*,” p. xxiii.), it is, considering the absence of high mountain ranges, large lakes, rivers, and extensive bogs, very unexpected that we should find considerably over half that total in the parish of Howth. Compared with the County Dublin, which comprises an area of 226,895 acres, or $354\frac{1}{2}$ square miles, and has considerable rivers, swamps, and a mountainous district reaching over 2,000 feet, we find the proportion to be about 670 to 545.†

Of rare Irish native plants occurring on Howth the following may be instanced:—*Raphanus maritimus*, *Viola hirta*, *Cerastium arvense*, *Geranium sanguineum*, *Erodium maritimum*, *E. moschatum*,

* Watson, in his “Remarks on Geographical Distrib. of Brit. Plants,” 1835, states that on an average an English *county* will contain about half the number of species found in Britain. In Surrey he found 600 species to 10 square miles, 400 to 1 square mile.—*Cybele Britannica*, iv., 381.

† I give the latter number as the Howth total, because several introduced species are retained in the Dublin total. In an Appendix will be found the list of those species which occur in Dublin not found on Howth, by adding which we obtain an estimate of the whole Flora of the County.

Trifolium striatum (Ireland's Eye), *T. scabrum*, *T. ornithopodioides*, *Ornithopus perpusillus*, *Anthriscus vulgaris*, *Galium erectum*, *G. mollugo*, *Inula crithmoides*, *Anthemis arvensis*, *Artemisia maritima*, *Senecio viscosus*, *S. erucifolius*, *Centaurea scabiosa*, *Carduus crispus*, *Helminthia echioides*, *Ligustrum vulgare*, *Myosotis collina*, *Salvia verbenaca*, *Statice occidentalis*, *Atriplex littoralis*, *Obione portulacoides*, *Ophrys apifera*, *Scilla verna*, *Zostera nana*, *Sclerochloa distans*, *Festuca uniglumis* (Ireland's Eye), *Bromus erectus*, *Hordeum marinum*. A few others occur just outside the parish boundary, as *Saxifraga granulata*, *Ænanthe Lachenalii*, *Trifolium fragiferum*, *Blysmus rufus*, *Glyceria aquatica*; and the sand-hills at Portmarnock, about five miles from Howth, afford many interesting species. Almost all the latter (omitting casuals) are, however, found on Howth.

In H. C. Watson's standard work, "*Cybele Britannica*," the British Flora is treated geographically as consisting of six groups. *British*, occurring in all parts of Great Britain; *English*, which have their chief predominance in the southern counties, and thin out northwards; *Scottish*, or *Northern*, the reverse of the English type; *Highland*, more intensely boreal or arctic, and chiefly confined to the higher mountains; *Germanic*, chiefly confined to the eastern side of England, and especially the counties bounded by the German Ocean; and *Atlantic*, or those found on the western or Atlantic side of the island. The same types may be adopted in dealing with the Irish Flora or that of any part of Ireland; but it will be apparent that as our flora is, in the

main, a western extension of that of England, we can, at the most, expect a very limited portion of the Germanic type; and, further, that the species denominated "Atlantic" in Great Britain will not necessarily be so in Ireland, but may occur (as they do in many instances) on all sides of Ireland. We have also in Ireland a few more thoroughly Atlantic plants not found in Great Britain; so that, were we to group Irish plants on the same principle as Watson does the British, some would change places. If, on the other hand, we accept his divisions, and deal with the Howth species as to their distribution in Great Britain, we find—

Under the Germanic Type :

‡ <i>Galium erectum</i> ,	<i>Orchis pyramidalis</i> ,
* <i>Crepis taraxacifolia</i> ,	† <i>Bromus erectus</i> .

Of this type 18, out of a total of 127, occur in Ireland.

Under the Northern Type :

<i>Thalictrum minus</i> ,	<i>Pinguicula vulgaris</i> .
<i>Parnassia palustris</i> ,	

66, out of a total of 117, occur in Ireland.

Under the Atlantic Type :

<i>Raphanus maritimus</i> ,	<i>Rubia peregrina</i> ,
<i>Viola Curtisii</i> ,	<i>Inula crithmoides</i> ,
<i>Linum angustifolium</i> ,	<i>Orobanche hederæ</i> ,
<i>Lavatera arborea</i> ,	<i>Statice occidentalis</i> ,
<i>Erodium maritimum</i> ,	<i>Euphorbia paralias</i> ,
<i>E. moschatum</i> ,	<i>Scilla verna</i> ,
<i>Sedum anglicum</i> ,	<i>Scirpus Savii</i> ,
<i>Cotyledon umbilicus</i> ,	<i>Lastrea æmula</i> .
<i>Crithmum maritimum</i> ,	

40, out of a total of 70, occur in Ireland.

The Highland type is not represented, and the remainder consists of British and English type plants, in the proportion of about ten of the former to one of the latter. The English group includes the majority of the rarer species.

Of undoubtedly native Irish plants which belong to Watson's English type rigorously (not "intermediately" between it and any other) there are about 90 species in Ireland. Of these the following 35 are found in the Parish of Howth :—

Papaver hybridum,	Thrinchia hirta,
Glaucium luteum,	Helminthia echioides,
Viola hirta,	Ligustrum vulgare,
Euonymus europæus,	Chlora perfoliata,
Ulex Gallii,	Convolvulus soldanella,
Trifolium striatum,	Salvia verbenaca,
T. scabrum,	† Ballota nigra,
T. ornithopodioides,	Statice bahusiensis,
Poterium sanguisorba,	Obione portulacoides,
Rosa arvensis,	Orchis morio,
† Pyrus malus,	Arum maculatum,
P. aria,	Zostera nana,
Apium graveolens,	Sclerochloa loliacea,
Helosciadium nodiflorum,	Festuca uniglumis,
Erigeron acris,	Lepturus incurvatus,
Pulicaria dysenterica,	Polystichum angulare,
Artemisia maritima,	Ceterach officinarum.
Senecio erucifolius,	

If the Flora of Howth be compared with that of the island of Lambay,* we find that the two are in no way different, excepting that the insular one is much reduced. *Geranium pusillum*, *Cœnanthe crocata*,

* See "Flora of Lambay," Proc., R.I.A., 2nd ser., Vol. III., by the author of the present work.

C. Lachenalii, and *Blysmus rufus*, are the only species on Lambay not occurring on Howth. The first of these is, perhaps, of recent introduction to Lambay, and the other three occur on the mainland, very near the boundary of Howth. If Howth be compared with Killiney, a headland on the south side of Dublin Bay, the two floras will be found nearly identical, with, however, a considerable reduction at Killiney Head, due to cultivation, building, and a smaller area.

I will, in an Appendix, enumerate the species found in the County Dublin which do not occur on Howth. This list is founded on information contained in the works of Wade and Mackay, in the "Irish Flora," in the "Cybele Hibernica," "Brit. Assoc. Guide," and on my own observations during many years. In several cases Mr. More has supplied me with localities. If there is nothing to be added to what is stated in the *Cybele* or its supplement, the name of the species is recorded without remark. The localities given in D'Alton's "History of Dublin," 1838, have been omitted, as they seem to be entirely borrowed from the previous writers mentioned above.

The works chiefly referred to are:—*Wade*, 1794. "Catalogus Systematicus Plantarum in Comitatu Dublinense." *Wade*, 1804. "Plantæ Rariores in Hibernia." *Mackay*, 1824. "Catalogue of Indigenous Plants of Ireland." *Trans. R.I.A.*, Vol. XIV. *Irish Flora*, 1833. *Mackay*, 1836. "Flora Hibernica." *Cybele Hibernica*. Moore and More, 1866. *Recent Additions*, 1872. A. G. More. *Guide*, British Association, 1878.

FLORA OF HOWTH.



DICOTYLEDONES.



ORDER I.—RANUNCULACEÆ.

CLEMATIS Linn.

- *1. *Clematis Vitalba* (Linn.)—*Common Traveller's Joy*.

Roadside hedges and banks at Drumleck, thoroughly established. Not a native species in Ireland.

THALICTRUM Linn.

1. *Thalictrum minus* (Linn.) (*b. maritimum*, Syme).—*Lesser Meadow-Rue*.

Sparingly in sandy soil at Carrigeen Bay, Ireland's Eye. Not found on Howth. "Found it, but sparingly, on Ireland's Eye, Howth;" *Wade*, 1804.

ANEMONE Linn.

1. *Anemone nemorosa* (Linn.)—*Wood Anemone*.
Common in woods and shady damp places.

RANUNCULUS Linn.

1. *Ranunculus heterophyllus* (Fries). *R. aquatilis* (Sm.)—*Common Water Crowfoot*.

Quarry pond by the sea below the Deer Park, and pond at Corr Castle. *Fl.* May, June.

2. *R. marinus* (Fries). *R. Baudotii* (Godron)—
Salt-water Crowfoot.

Pools near Baldoyle Station, on both sides of the railway. *Fl.* April, May.

3. *R. trichophyllus* (Chaix).—*Water-fennel.*

In the fish-pond at Howth Castle ; marsh near the summit of Howth. *Fl.* June, July.

4. *R. hederaceus* (Linn.)—*Ivy-leaved Water Crow-foot.*

Quarry-hole at Kilrock and [elsewhere ; not unfrequent. Ireland's Eye.

5. *R. sceleratus* (Linn.)—*Celery-leaved Crowfoot.*

Usually in ditches near the sea. Railway Stations at Howth and Baldoyle ; quarry-hole west of Shelmartin ; Whitewater Brook ; ditches at Greenfields ; Ireland's Eye.

6. *R. Flammula* (Linn.)—*Small Spearwort.*
Common in watery places. Ireland's Eye.

7. *R. Ficaria* (Linn.)—*Lesser Celandine.*
Damp and shady places ; common. Ireland's Eye.

8. *R. acris* (Linn.)—*Upright Crowfoot. Buttercup.*
Frequent in meadows and pastures.

9. *R. repens* (Linn.)—*Creeping Buttercup.*
Abundant in damp soil. Ireland's Eye.

10. *R. bulbosus* (Linn.)—*Bulbous Buttercup.*
On the Cosh and elsewhere ; not unfrequent.
Ireland's Eye.

CALTHA Linn.1. *Caltha palustris* (Linn.)—*Marsh Marigold*.

In several places by ditches, etc., as at Gray's Wood, Ballkill Marsh, etc.

ORDER II.—PAPAVERACEÆ.

PAPAVER Linn.1. *Papaver argemone* (Linn.)—*Long Prickly-headed Poppy*.

Frequent in dry ground about Baldoyle Railway Station and along the line near it; sandy fields between Baldoyle and Sutton; near Howth Station. "Near Kilbarrick Church;" *Mackay*, 1824.

2. *P. hybridum* (Linn.)—*Round Prickly-headed Poppy*.

About Baldoyle in several places; cornfields at The Cliffs, The Needles, and Drumleck; fields at Sutton. "Near Kilbarrick Church;" *Mackay*, 1824.

3. *P. rhœas* (Linn.)—*Common Red Poppy*.

Cultivated land, abundant, especially about Howth village.

4. *P. dubium* (Linn.)—*Long Smooth-headed Poppy*.

Not unfrequent, especially on the north side. The forms *P. Lamottei* and *P. Lecoqui* both occur.

* 5. *P. somniferum*.—*The Opium Poppy*.

Waste places and cornfields between Baldoyle and Sutton and about Warren House; thoroughly established. "Circa Warren House, juxta Howth;" *Wade*, 1794.

GLAUCIUM Tourn.

1. *Glaucium luteum* (Scop.)—*Horned Poppy*.

By the shore at Sutton and Greenfields. “*Inter Sheds-of-Clontarf et Howth;*” *Wade*, 1794.

ORDER III.—FUMARIACEÆ.

FUMARIA.

1. *Fumaria confusa* (Jord). *F. capreolata* (Linn.)
(in part).—*Ramping Fumitory*.

Ditch banks a little south of Howth village, and probably elsewhere occasionally; Baldoyle, etc.

2. *F. officinalis* (Linn.)—*Fumitory*.

Cultivated fields; frequent.

ORDER IV.—CRUCIFERÆ.

CHEIRANTHUS Linn.

- * 1. *Cheiranthus cheiri* (Linn.)—*Wallflower*.

By the Railway close to Howth Station and on cottages in the village; apparently well established.

NASTURTIUM R. Br.

1. *Nasturtium officinale* (R. Br.)—*Watercress*.
Frequent in watery places.

BARBAREA R. Br.

1. *Barbarea vulgaris* (R. Br.)—*Bitter Winter Cress*.

Banks and roadsides; not common. About Hillside and other houses above Howth village; along the railway from Howth to Baldoyle.

CARDAMINE Linn.

1. *Cardamine hirsuta* (Linn.)—*Hairy Bitter Cress*.

Common in shady places and by roadsides.

Var. C. sylvatica Link.

Woods at Howth Castle.

2. *C. pratensis* (Linn.)—*Lady's Smock*.

Abundant in damp places.

SISYMBRIUM Linn.

1. *Sisymbrium officinale* (Scop.)—*Hedge*

Mustard.

Roadsides and dry waste places; common. Ireland's Eye.

2. *S. sophia* (Linn.)—*Flixweed*.

Abundant between Sutton and Baldoyle; a weed in potato gardens at Howth village. Ireland's Eye. "Very common near Dublin;" *Mackay*, 1836.

†3. *S. irio* (Linn.)—*London Rocket*.

A few plants by the shore below Claremount, west of Howth Harbour. This species is confined to the neighbourhood of Dublin in Ireland, and was probably introduced. Not previously recorded from Howth. "Very common about Dublin;" *Mackay*, 1836.

4. *S. thalianum* (Gaud.)—*Thale Cress*.

Banks by the roadside and elsewhere about Drumleck. It occurs also on Lambay and near the Scalp, the only other places I have seen it in Dublin County. "Plentiful on south side of Howth;" *Gvide*, 1878.

ALLIARIA Adans.1. *Alliaria officinalis* (Andrz.)—*Jack by the Hedge*.

Howth Castle, and in several places about the Demesne; below The Needles, south side of the Hill.

BRASSICA Linn.*1. *Brassica polymorpha* (Syme).—*Turnip, Rape*.

Occur occasionally as weeds from cultivation, crops, etc. Forms are to be found always in summer in uncertain places, as ditchbanks and roadsides.

SINAPIS Linn.†1. *Sinapis nigra* (Linn.)—*Black Mustard*.

At the village of Howth, on high banks, above the Harbour. A rare plant in Ireland; not hitherto recorded from Howth.

2. *S. arvensis* (Linn.)—*Charlock*.

Cultivated fields, common. Ireland's Eye.

†3. *S. alba* (Linn.)—*White Mustard*.

In cultivated fields, especially of potatoes, about the village of Howth.

DIPLOTAXIS De Cand.‡1. *Diplotaxis muralis* (D.C.)—*Wall Mustard*.

Baldoyle Station, and between that and Howth Station, especially along the Railway; Sutton. Confined to the Dublin coast, and first found at Portmarnock in 1837, and Baldoyle, 1866; *Cyb. Hib.*

DRABA Linn.1. *Draba verna* (Linn.)—*Common Whitlow Grass*.

Abundant on dry banks, walls, and sandy pastures. Ireland's Eye. *Fl.* March, April.

COCHLEARIA Linn.

1. *Cochlearia officinalis* (Linn.)—*Common Scurvy Grass*.

Common round the coast. Ireland's Eye.

2. *C. danica* (Linn.)—*Danish Scurvy Grass*.

Dry ground about Sutton; Pier at Howth.
"Between Clontarf and Howth;" *Irish Flora*, 1833.

THLASPI Linn.

- †1. *Thlaspi arvense* (Linn.)—*Penny Cress*.

Fields on the neck of Howth, 1866; plentiful about Innisfallen and Hillside above the village, 1881-2; Balscaddan, and about the Red Park. A colonist which has increased of late years, and has spread at length to Lambay Island. "Lately found on Howth by Captain Pratt;" *Mackay*, 1824.

ARMORACIA Rupp.

- *1. *Armoracia rusticana* (Rupp.)—*Horse Radish*.

Established in several places about the west of Howth Parish, as at Burren Farm, etc.

LEPIDIDIUM Linn.

1. *Lepidium Smithii* (Hook.)—*Smooth-podded Pepper-wort*.

Dry banks and borders of fields; common. "On the Hill of Howth and other places near Dublin; plentiful;" *Mackay*, 1824.

CAPSELLA Vent.

1. *Capsella bursa-pastoris* (D.C.)—*Common Shepherd's Purse*.

Very common in dry waste places.

SENEBIERA Pers.†1. *Senebiera coronopus* (Poiret).—*Swine's Cress*.

About the Village of Howth ; waste ground by the sea, below the Deer Park.

CAKILE Gært.1. *Cakile maritima* (Scop.)—*Sea Rocket*.

Cosh ; Sutton. Ireland's Eye. "Apud sheds of Clontarf, et Howth ;" *Wade*, 1794.

RAPHANUS Linn.1. *Raphanus raphanistrum* (Linn.)—*Radish*.

Frequent in fields about Sutton.

2. *R. maritimus* (Sm.)—*Sea Radish*.

By the shore, between Greenfields and Sutton ; waste ground by the sea, below the Deer Park, sparingly ; in some quantity on steep banks by the sea at The Needles and Earlscliffe. "Along the banks of the sea, under Mr. Hennington's at Howth ;" *Irish Flora*, 1833.

ORDER V.—RESEDACEÆ.

RESEDA Linn.†1. *Reseda lutea* (Linn.)—*Wild Mignonette*.

Sparingly in dry, sandy, and waste places on the Burrow, between Baldoye and Sutton. Not previously recorded from Howth.

2. *R. luteola* (Linn.)—*Dyer's Weed*. *Weld*.

Dry banks and waste places ; common.

ORDER VI.—VIOLACEÆ.

VIOLA Linn.

1. *Viola palustris* (Linn.)—*Marsh Violet*.

In several wet places. Abundant by Whitewater Brook.

2. *V. hirta* (Linn.)—*Hairy Violet*.

Dry banks and sandy places. Abundant on the Cosh; on the east side of Howth by the sea, about a mile north of the Bailey Lighthouse, and again, nearer to it. "East side of Howth;" *Irish Flora*, 1833. A very rare species in Ireland.

3. *V. sylvatica* (Fries.)—*Dog Violet*.

Common. Chiefly the form *V. Riviniana*, but *V. Reichenbachiana* occurs. Ireland's Eye.

4. *V. canina* (Fries.)—*Heath Violet*.

Local. On the Cosh. Ireland's Eye.

5. *V. tricolor* (Linn.)—*Wild Pansy*.

Dry places and cultivated fields on a light soil; frequent. Ireland's Eye.

6. *V. Curtisii* (Forster).—*Sea Pansy*.

Sand-hills by the sea. On the Cosh. Ireland's Eye. "Fetch'd from the Hill of Howth;" *Threlkeld*, 1727. (Sub *Viola montana lutea grandiflora*.)

ORDER VII.—DROSERACEÆ.

DROSERA.

1. *Drosera rotundifolia* (Linn.)—*Round-leaved Sundew*.

Marsh near the summit of Howth ; marshy ground at Cabeena's ; in a couple of small marshes near Woodside, on the north side of the Hill. "Apud Howth ;" *Wade*, 1794.

PARNASSIA Linn.

1. *Parnassia palustris* (Linn.)

Marsh near the summit of Howth ; sparingly. By Whitewater Brook, near the Lighthouse Road. "Inveni in palustribus apud Howth ;" *Wade*, 1794.

ORDER VIII.—POLYGALACEÆ.

POLYGALA Linn.

1. *Polygala vulgaris* (Linn.)—*Milkwort*.

Dry places ; common. The earliest spring growth amongst the heather. Ireland's Eye.

Var. P. depressa (*Wend.*)—Not unfrequent. Ireland's Eye.

ORDER IX.—CARYOPHYLLACEÆ.

SAPONARIA Linn.

- *1. *Saponaria officinalis* (Linn.)—*Soapwort*.

Waste places. Established on roadside banks at St. Bridget's.

SILENE Linn.1. *Silene inflata* (Sm.)—*Bladder Campion*.

Cultivated places, hedgebanks, and roadsides ; frequent.

2. *S. maritima* (With).

Common in dry places by the sea. Ireland's Eye. "Among the stones near the sea, near Ballah-na-Scadan;" *Threlkeld*, 1727. (Sub *Lychnis maritima repens*.)

LYCHNIS Linn.1. *Lychnis flos-cuculi* (Linn.)—*Ragged Robin*.

Damp ground in several places.

2. *L. vespertina* (Sibth.)—*White Campion*.

Sandy fields ; common. Ireland's Eye.

3. *L. diurna* (Sibth.)—*Red Campion*.

Woods in Howth Demesne ; at Carrickbrack, and in sandy places amongst brambles on Ireland's Eye.

4. *L. githago* (Linn.)—*Corn Cockle*.

Abundant with vetches in a field at North Sutton, 1881 ; Warren House ; Balscaddon ; cornfields at The Needles. Freely introduced with vetch-seed in Ireland. "Cornfields about Howth ;" *Irish Flora*, 1833.

SAGINA Linn.1. *Sagina maritima* (Don.)—*Sea Pearlwort*.

On the Cosh and about the Bailey Lighthouse. Ireland's Eye.

2. *S. procumbens* (Linn.)—*Procumbent Pearlwort.*

Waste ground and damp places ; common. Ireland's Eye.

3. *S. apetala* (Linn.)—*Annual Pearlwort.*

Walls and dry places ; frequent. Ireland's Eye.

Var. S. ciliata (Fries.)—Walls between Howth Church and Howth Station, and elsewhere on the north side.

4. *S. nodosa* (Meyer).—*Knotted Spurrey.*

Scarce. On the Cosh : near Howth Station ; by the old shore road from Kilbarrack to Sutton. "Grounds between Baldoyle and Howth ;" *Irish Flora*, 1833.

HONKENEYA Ehrh.

1. *Honkeneya peploides* (Ehrh.)—*Sea Purslane.*

By the sea, on the Sutton side of Howth. Ireland's Eye.

ARENARIA Linn.

1. *Arenaria serpyllifolia* (Linn.)—*Thyme-leaved Sandwort.*

On old walls and sandy ground near the sea ; common. Ireland's Eye.

STELLARIA Linn.

1. *Stellaria media* (Linn.)—*Common Chickweed.*

Common in various situations.

2. *S. holostea* (Linn.)—*Greater Stitchwort.*

Thickets and hedgebanks ; abundant.

3. *S. graminea* (Linn.)—*Lesser Stitchwort*.

Bushy places and banks ; frequent.

4. *S. uliginosa* (Murr.)—*Bog Stitchwort*. *Bog Chickweed*.

Wet places ; common.

CERASTIUM Linn.1. *Cerastium glomeratum* (Thuil.)—*Broad-leaved Mouse-ear*, or *Mouse-ear Chickweed*.

Dry places ; frequent. Ireland's Eye.

2. *C. triviale* (Link.)—*Narrow-leaved Mouse-ear Chickweed*.

Dry places, walls ; common. Ireland's Eye.

3. *C. tetrandrum* (Curt.)—*Four-cleft Mouse-ear Chickweed*.

Plentiful on the Cosh and in a sandy field at the parish boundary near Kilbarrack. Ireland's Eye. "On Howth, Sutton side, near the cliffs, plentiful ;" Mackay, 1824.

4. *C. semidecandrum* (Linn.)—*Little Mouse-ear Chickweed*.

Sandy places by the sea. On the Cosh and elsewhere ; frequent. Ireland's Eye.

5. *C. arvense* (Linn.)—*Large-flowered Mouse-ear Chickweed*.

Abundant by the coast, chiefly in sandy places. On Ireland's Eye. A very local species in Ireland. "Ad vias inter Clontarf et Howth abunde ;" Wade, 1794.

ORDER X.—MALVACEÆ.

MALVA Linn.*1. *Malva moschata* (Linn.)—*Musk Mallow*.

Has appeared occasionally at Drumleek; on banks near Sutton (Miss Mahaffy, 1884), but not anywhere established. It is, however, rare and uncertain in Ireland, except in some of the southern counties.

2. *M. sylvestris* (Linn.)—*Common Mallow*.

Banks and waysides; frequent. In wild places along banks over the sea, on the east and south side.

3. *M. rotundifolia* (Linn.)—*Dwarf Mallow*.

Waste places near Baldoy Station; roadside near Bailey Post Office; between The Hut and Boggeen; Lighthouse Green; Warren House; Howth village. "Circa Warren House, North Wall, Raheny, Howth;" *Wade*, 1794.

LAVATERA Linn.1. *Lavatera arborea* (Linn.)—*Tree Mallow*.

In an almost inaccessible gully above the sea on the east side of Howth, half a mile north of the Bailey Lighthouse, and again a little north of that, near Piper's Gut. These localities appear to be native ones. They would be difficult or impossible to reach except from a boat. The *Tree Mallow* also occurs abundantly at the north-east corner of Ireland's Eye, especially on the tabular summit of the bold columnar rock at the extremity of the island. Without a rope, I have found it somewhat difficult to

examine the last locality. *Lavatera* has not, I think, been observed previously on the Howth cliffs. "On Ireland's Eye, opposite Howth;" *Wade*, 1804.

ORDER XI.—HYPERICACEÆ.

1. *Hypericum androsæmum* (Linn.)—*Tutsan*
St. John's-wort.

At The Cliffs and elsewhere ; sparingly.

2. *H. quadrangulum* (Linn.)—*Square-stalked St.*
John's-wort.

Wet places ; not rare.

3. *H. perforatum* (Linn.)—*Perforated St. John's-*
wort.

Abundant by the railway between Howth and Baldoye.

4. *H. humifusum* (Linn.)—*Trailing St. John's-wort.*

Dry places, as at the roadside near Glenaveena ; stony ground below Muck Rock. "Plentiful on Howth;" *Mackay*, 1824.

5. *H. pulchrum* (Linn.)—*Upright St. John's-wort.*

Common everywhere in dry places. Ireland's Eye.

ORDER XII.—GERANIACEÆ.

GERANIUM Linn.

1. *Geranium sanguineum* (Linn.)—*Bloody Crane's-bill*.

Plentiful on banks above the sea from Balscaddan eastwards, and round the coast to Drumleck and Sutton. In flower first week of May. A local and beautiful species. Ireland's Eye. "Ad littus in Howth prope lavacrum;" *Wade*, 1794.

- ‡2. *G. pyrenaicum* (Linn.)—*Mountain Crane's-bill*.

Banks and borders of roads and fields about Baldoyle, and near the village of Howth. Ireland's Eye. "Near Dublin, frequent;" *Mackay*, 1824.

3. *G. dissectum* (Linn.)—*Cup-leaved Crane's-bill*.

Banks and fields; not unfrequent. Ireland's Eye.

4. *G. molle* (Linn.)—*Soft Crane's-bill*. *Dove's-foot Crane's-bill*.

Banks, roadsides, and fields; common. Ireland's Eye.

5. *G. Robertianum* (Linn.)—*Herb Robert*. *Stinking Herb Robert*.

Rocky, bushy, and shady places; frequent. Ireland's Eye.

ERODIUM L'Hérit.

1. *Erodium cicutarium* (Sm.)—*Hemlock Stork's-bill*.

Banks and sandy places, chiefly near the sea; common. Ireland's Eye.

†2. *E. moschatum* (Sm.)—*Musky Stork's-bill*.

Waste places and roadsides near the sea. Near the Martello Tower, and elsewhere at Sutton; Warren House; roadside to Brook Lodge, above Howth Village; abundant by the road between Cannon Rock and The Hut. “*Juxta Warren House;*” *Wade*, 1794.

3. *E. maritimum* (Sm.)—*Sea Stork's-bill*.

Dry banks and sandy places near the sea. Between Sutton Martello Tower, and the little landing-place near The Cliffs in several places; on the east side, between Kilrock and the Bailey Lighthouse, especially in the bay north of Casana's Rocks. Plentiful near the Stack on Ireland's Eye. A very local species in Ireland. “*Gravelly bank on the east side of Howth;*” *Mackay*, 1824.

ORDER XIII.—LINACEÆ.

LINUM Linn.

1. *Linum angustifolium* (Huds.)—*Pale-flowered Flax*.

At The Cliffs on banks above the sea; below The Needles and Glenaveena. A very rare plant in Ireland, and not hitherto recorded from Howth.

2. *L. catharticum* (Linn.)—*Cathartic or Purging Flax*.

Dry banks, pastures, and heathy places; common. Ireland's Eye.

ORDER XIV.—OXALIDACEÆ.

OXALIS Linn.

1. *Oxalis acetosella* (Linn.)—*Wood Sorrel*.
Woods and thickets ; frequent.
-

ORDER XV.—CELASTRACEÆ.

EUONYMUS Linn.

1. *Euonymus europæus* (Linn.)—*Spindle Tree*.

Howth Demesne ; banks by the roadside a little south of Howth Village ; by Whitewater Brook, near the road.

ORDER XVI.—LEGUMINOSÆ.

ULEX Linn.

1. *Ulex europæus* (Linn.)—*Furze. Whin. Gorse*.

Pastures and rocky places ; abundant. Ireland's Eye.

2. *U. Gallii* (Planch.)—*Dwarf Furze*.

Dry, heathy, hilly places, usually at a higher level on the Hill than the last species. Ireland's Eye.

SAROTHAMNUS Wimm.

1. *Sarothamnus scoparius* (Koch.) *Cytisus scoparius* (Linn.)—*Broom*.

Dry, stony, heathy places, chiefly on the east and south sides of the Hill. A dense, prostrate form (*S. prostratus*, *Ir. Flor.*) grows on the rocks at

Drumleck, Kilrock, and Ireland's Eye. It is this form which is supposed to have been mistaken for *Genista tinctoria* on Killiney Hill. The *Genista* does not grow in Ireland.

ONONIS Linn.

1. *Ononis arvensis* (Linn.)—*Rest-harrow*.

Sandy banks and cultivated places near the sea, especially on the west side of the Hill. Ireland's Eye.

MEDICAGO Linn.

1. *Medicago lupulina* (Linn.)—*Black Medick*.

Dry places ; common. Ireland's Eye.

*2. *M. sativa* (Linn.)—*Lucerne*.

Established in many places in North Sutton and about the railway at the Quarry. Grown as a crop. "At Portmarnock perfectly naturalized;" *Mackay*, 1824.

MELILOTUS Linn.

†1. *Melilotus officinalis* (Willd.)—*Common Melilot*.

Railway banks and dry fields about the villages of Baldoyle and Howth ; by the side of the old shore road to Sutton. "Juxta Balldoyle abunde ;" *Wade*, 1794.

TRIFOLIUM Linn.

1. *Trifolium pratense* (Linn.)—*Red Clover*.

Meadows and pastures ; common. Ireland's Eye.

2. *T. arvense* (Linn.)—*Hare's-foot Trefoil*.

Sandy banks and fields ; Bailey Lighthouse ; about Warren House on Howth Burrow ; sparingly between

Kilrock and the Bailey Lighthouse on the east side of Howth; seashore between Kilbarrack and Sutton. "Dry sandy pastures near Baldoyle, and at Portmar-nock sands; abundant;" *Mackay*, 1824.

3. *T. striatum* (Linn.)—*Soft-knotted Trefoil*.

Dry, grassy slopes at the margin of the sea at Carrigeen, on Ireland's Eye; very sparingly. This plant is reported in the *Cybele Hibernica* as found at "Killiney, Kilbarrack, and Howth; D.M." (David Moore). *T. scabrum* was not, however, recorded by D.M. from Kilbarrack and Howth, and was probably the plant intended. The present rare species grows also on Lambay, whence it was formerly recorded as *T. maritimum*. It has not before been recorded from Ireland's Eye.

4. *T. scabrum* (Linn.)—*Rough Rigid Trefoil*.

Sandy and gravelly places near the sea, from below Kilbarrack to Greenfields. A rare and very local species in Ireland. "In dry, sandy fields abounding with calcareous stone; the Sutton side of Howth; flowering so early as May;" *Wade*, 1804.

5. *T. repens* (Linn.)—*Dutch Clover*. *Shamrock*.

Meadows and pastures; common. Ireland's Eye.

6. *T. ornithopodioides* (Linn.) *Trigonella* (D.C.)
—*Bird's-foot Trefoil*.

Near the Lighthouse at Howth; *Cyb. Hib.*, 1866. Recently rediscovered by Mr. Scully, who kindly showed me specimens from the side of the road leading to the Lighthouse. Very rare in Ireland.

7. *T. procumbens* (Linn.) *T. agrarium* (Huds.)—
Hop Trefoil.

Dry, sandy, and gravelly places ; frequent.

8. *T. minus* (Sm.)—*Small Yellow Trefoil.*

Common on banks and light pastures. Ireland's Eye.

- [9. *T. filiforme* (Linn.)—*Slender Yellow Trefoil.*

“Howth, D.M. ;” *Cyb. Hib.* I have not met with it. It generally occurs on close-shaven pleasure-grounds, as at St. Anne's, Clontarf.]

LOTUS Linn.

1. *Lotus corniculatus* (Linn.)—*Bird's-foot Trefoil.*

Dry banks and sandy or stony pastures ; abundant. Ireland's Eye. Perhaps the first species to appear on the reclamation of sand wastes near the sea. The variety, *L. tenuis* (Smith), has been gathered by Mr. Vowell on banks above the sea at Balscaddan.

2. *L. major* (Scop.)—*Greater Bird's-foot Trefoil.*

Damp thickets and meadows in Howth Demesne.

ANTHYLLIS Linn.

1. *Anthyllis vulneraria* (Linn.)—*Lady's Finger.*

Rocky pastures and banks near the sea ; abundant. Ireland's Eye.

VICIA Linn.

1. *Vicia hirsuta* (Koch.) *Ervum hirsutum* (Linn.)

Flor. Hib.—*Hairy Tare.*

Cultivated fields ; not unfrequent, especially on the S.E. side of the Hill.

2. *V. cracca* (Linn.)—*Tufted Vetch*.

Hedges and bushy places ; frequent.

3. *V. sepium* (Linn.)—*Bush Vetch*.

Hedges, banks, and shady places ; common. Ireland's Eye.

*4. *V. sativa* (Linn.)—*Common or Cultivated Vetch*.

Frequent, and apparently established about Sutton as a remnant of crops.

5. *V. angustifolia* (Roth.) *V. sativa* var. (*Brit. Flor., etc.*)—*Narrow-leaved Vetch*.

Dry banks and pastures. Along the railway, between Baldoye and Howth ; in a field between Kilbarrack and Warren Lodge ; on Ireland's Eye.

6. *V. lathyroides* (Linn.)—*Dwarf Spring Vetch*.

On the Cosh, at the end nearest Baldoye Station, and about the middle part. A very rare little plant in Ireland. "Sandy fields near Kilbarrack Church ;" *Mackay*, 1824.

LATHYRUS Linn.1. *Lathyrus pratensis* (Linn.)—*Meadow Vetchling*.

Thickets, hedges, and damp meadows ; common.

ORNITHOPUS Linn.1. *Ornithopus perpusillus* (Linn.)—*Bird's-foot*.

Dry banks at Carrickbrack and on the seaward side of the road below it ; between the Lighthouse and Glenaveena. Appears to have become scarcer of late years. A very rare plant in Ireland. "Bare sandy pasture fields on the south side of Howth ;" *Mackay, Cat. Rar.*, 1806." "Plentiful on Howth ;" *Mackay*, 1824.

ORDER XVII.—ROSACEÆ.

PRUNUS Linn.

1. *Prunus communis* (Huds.) *P. spinosa* (Linn.)
—*Blackthorn. Sloe.*

Hedges, banks, and rocky thickets ; common.

**P. insititia* (Linn.)—*Bullace.*

Hedges in Howth Demesne.

‡2. *P. cerasus* (Linn.)—*Dwarf Cherry.*

Borders of a field at the south-west of Howth Demesne.

SPIRÆA Linn.

1. *Spiræa ulmaria* (Linn.)—*Meadow-sweet.*

Damp ground by streams and in meadows ; frequent.

POTERIUM Linn.

1. *Poterium sanguisorba* (Linn.)—*Lesser Burnet.*

Dry banks above the sea, between Casana Rocks and the Bailey Lighthouse in several places ; below Glenaveena. “South side of Howth ;” *Cybele Hibernica*, 1866.

AGRIMONIA Linn.

1. *Agrimonia eupatoria* (Linn.)—*Common Agrimony.*

Banks, edges of fields, and bushy places. Between Glenaveena and the Lighthouse at the Bailey, and between that and Piper’s Gut, above the sea ; on the Cosh and at Warren House.

ALCHEMILLA Linn.

1. *Alchemilla arvensis* (Scop.)—*Parsley Piert.*
Banks and dry places with a light soil; frequent.

POTENTILLA Linn.

1. *Potentilla anserina* (Linn.)—*Silver-weed.*
Damp pastures, roadsides, and sandy places;
common. Ireland's Eye.

2. *P. reptans* (Linn.)—*Creeping Cinquefoil.*
Meadows, banks, and waysides; common. Ire-
land's Eye.

3. *P. tormentilla* (Nestl.) *Tormentilla officinalis*
(Sm.); *Flor. Hib.*—*Tormentil.*

Dry pastures and heathy places; abundant. Ire-
land's Eye.

4. *P. fragariastrum* (Linn.)—*Barren Strawberry.*
Woods and banks; frequent.

RUBUS Linn.

1. *Rubus idæus* (Linn.)—*Raspberry.*
In the Demesne woods, near the gamekeeper's
lodge.
2. *R. discolor* (W. and N.)—*Bramble. Blackberry.*
Hedges, thickets, woods, and rocky places. The
commonest form of bramble. *R. suberectus* (Anders)
and *R. villicaulis* (W. et N.) also occur.

COMARUM Linn.

1. *Comarum palustre* (Linn.)—*Marsh Cinquefoil.*
Boggy ground near Woodside; bog near the sum-
mit of Howth.

FRAGARIA Linn.

1. *Fragaria vesca* (Linn.)—*Wood Strawberry*.
Woods, thickets, and banks ; frequent.

GEUM Linn.

1. *Geum urbanum* (Linn.)—*Wood Avens*.
Woods in the Demesne.

ROSA Linn.

1. *Rosa spinosissima* (Linn.)—*Burnet Rose*.
Sandy, rocky, and heathy places chiefly by the sea ; abundant. Ireland's Eye.

2. *R. tomentosa* (Sm.)—*Downy-leaved Rose*.
Bushy places. Roadside banks at Balscaddan.

3. *R. canina* (Linn.)—*Dog Rose*.
Hedges and thickets ; frequent. Ireland's Eye.

4. *R. arvensis* (Huds.)—*Trailing Rose*.
Borders of woods and in hedges. Howth Demesne in many places, and in North Sutton.

CRATÆGUS Linn.

1. *Cratægus Oxyacantha* (Linn.)—*Hawthorn*.
Whitethorn.
Hedges, bushy and rocky places ; common. Ireland's Eye.

PYRUS Linn.

1. *Pyrus malus* (Linn.)—*Crab-tree*. *Crab-apple*.
Sparingly in Howth Demesne.
2. *P. aucuparia* (Gært.)—*Mountain Ash*. *Rowan*.
Near St. Fintan's, and behind Sutton House ;
Muck Rock, where it is native.

3. *P. aria* (Sm.)—*White Beam Tree*.

Rocks high up on Dung Hill, looking north; sparingly and stunted. This is probably the same locality which is given as "Howth, north-east side, growing out of a rocky mountain;" *Irish Flora*, 1833. "In the hedges, to the west side of Howth;" *Wade*, 1804. I have not been able to find it in the latter locality.

ORDER XVIII.—LYTHRACEÆ.

LYTHRUM Linn.

1. *Lythrum salicaria* (Linn.)—*Purple Loose-strife*.

Wet places; frequent.

PEPLIS Linn.

1. *Peplis portula* (Linn.)—*Water Purslane*.

In a marshy spot at the north-western end of Ireland's Eye. May have been overlooked by me on Howth, but certainly very scarce, if it does occur, and not "plentiful," as stated in *Flora Hibernica*.

ORDER XIX.—ONAGRACEÆ.

EPILOBIUM Linn.

1. *Epilobium hirsutum* (Linn.)—*Great Willow-herb*.

By ditches and streams; frequent.

2. *E. parviflorum* (Linn.)—*Small-flowered Willow-herb*.

Damp places; common.

3. *E. montanum* (Linn.)—*Smooth Willow-herb*.
Rocky banks and dry thickets ; frequent.
4. *E. obscurum* (Schreb.)—*Square-stalked Willow-herb*.

Damp places ; frequent.

5. *E. palustre* (Linn.)—*Marsh Willow-herb*.
Very local. By Whitewater Brook.

CIRCÆA Linn.

1. *Circæa lutetiana* (Linn.)—*Enchanter's Night shade*.

Shady places amongst trees and rocks. Howth Demesne.

ORDER XX.—HALORAGACEÆ.

MYRIOPHYLLUM Linn.

1. *Myriophyllum alterniflorum* (D.C.)—*Water Milfoil*.

Quarry ponds between Howth and Baldoyle Stations ; pond at Howth Castle.

ORDER XXI.—PORTULACEÆ.

MONTIA Linn.

1. *Montia fontana* (Linn.)—*Water Blinks*.
Damp places ; frequent.

ORDER XXII.—PARONYCHIACEÆ.

LEPIGONUM Fries.1. *Lepigonum rupicola* (More).—*Rock Sandwort*.

Rocky places on the coast; common. Ireland's Eye. "Plentiful at Howth;" *Cyb. Hib.*, 1866.

2. *L. salinum* (Presl).—*Intermediate Sandwort*.

By the sea at Sutton and the Burrow.

3. *L. marinum* (Wahlb.).—*Sea Sandwort*.

Wet, muddy places by the sea at Sutton. Ireland's Eye.

SCLERANTHUS Linn.1. *Scleranthus annuus* (Linn.).—*Annual Knawel*.

Roadside, and on light soil near Warren Lodge and Kilbarrack occasionally. Very rare. "Dry, sandy fields between Baldoyle and Howth;" *Irish Flora*, 1833.

SPERGULA Linn.1. *Spergula arvensis* (Linn.).—*Corn Spurry*.

Cultivated ground on a light soil; common. One of the first species to appear on the reclamation of a turf bog.

ORDER XXIII.—CRASSULACEÆ.

SEDUM Linn.1. *Sedum anglicum* (Huds.).—*English Stone-crop*.

Rocky places and sea banks; common. Ireland's Eye.

2. *S. acre* (Linn.)—*Wall Pepper*.

Sandy places near the sea. On the Cosh and elsewhere. Ireland's Eye. "Super montes Howth;" *Wade*, 1794.

COTYLEDON Linn.1. *Cotyledon umbilicus* (Linn.)—*Wall Pennywort*.

Rocky places and old walls. Cliffs at Kilrock and elsewhere; Ireland's Eye. "Howth;" *Wade*, 1794.

ORDER XXIV.—SAXIFRAGACEÆ.

SAXIFRAGA Linn.1. *Saxifraga tridactylites* (Linn.)—*Rue-leaved Saxifrage*.

Abundant on sandy ground at the eastern end of the Cosh. *Fl.* April, May.

CHRYSOSPLENIUM Linn.1. *Chrysosplenium oppositifolium* (Linn.)—*Golden-leaved Saxifrage*.

Damp, shady, and rocky places. Between Howth Railway Station and the Church, and elsewhere.

ORDER XXV.—UMBELLIFERÆ.

HYDROCOTYLE Linn.1. *Hydrocotyle vulgaris* (Linn.)—*Marsh Pennywort*. *Whiterot*.

Common in marshy ground in the upper part of Howth. Ireland's Eye.

SANICULA Linn.

1. *Sanicula europæa* (Linn.)—*Sanicle*.

Shady places in Howth Demesne near the Castle.

ERYNGIUM Linn.

1. *Eryngium maritimum* (Linn.)—*Sea Holly*.

Sandy shores at Sutton and the Cosh. Ireland's Eye. "Inter Clontarf et Howth;" *Wade*, 1794.

APIUM Linn.

1. *Apium graveolens* (Linn.)—*Wild Celery*.

Brackish, wet places at Sutton. "Salt marshes between Clontarf and Baldoyle;" *Irish Flora*, 1833.

HELOSCIADIUM Koch.

1. *Helosciadium nodiflorum* (Koch.) *Sium nodiflorum* (Linn.)—*Water Parsnep*.

Wet places; frequent. Ireland's Eye.

BUNIUM Linn.

1. *Bunium flexuosum* (With.) *Conopodium flexuosum* (Flor. Hib.)—*Pig-nut*.

Pastures, woods, and thickets; abundant. Ireland's Eye. *Fl.* April, May.

PIMPINELLA Linn.

1. *Pimpinella saxifraga* (Linn.)—*Burnet Saxifrage*.

Dry, light pastures at The Cliffs and elsewhere; frequent.

ÆGOPODIUM Linn.

- ‡1. *Ægopodium podagraria* (Linn.)—*Goutweed*.

About Warren House. Howth gardens are mostly free from this pest.

ÆTHUSA Linn.1. *Æthusa cynapium* (Linn.)—*Fool's Parsley*.

Cultivated ground; very common on Howth, especially in corn-fields. Ireland's Eye.

FENICULUM Hoffm.*1. *Fœniculum officinale* (All.) *F. vulgare*
(*Gært*).—*Fennel*.

Waste ground near Howth Station, about the village, and at Balscaddan. "Old Abbey apud Howth;" *Wade*, 1794.

CRITHMUM Linn.1. *Crithmum maritimum* (Linn.)—*Samphire*.

On rocks by the sea in many places. Ireland's Eye. "Juxta Lighthouse, Howth, in Ireland's Eye, etc.;" *Wade*, 1794.

ANGELICA Linn.1. *Angelica sylvestris* (Linn.)—*Wild Angelica*.

Shady woods and wet places; not common. Howth Demesne and along the railway near Howth.

HERACLEUM Linn.1. *Heracleum sphondylium* (Linn.)—*Cow Parsnep*.

Waste places, hedges, and roadsides; frequent. Ireland's Eye.

DAUCUS Linn.1. *Daucus carota* (Linn.)—*Wild Carrot*.

Dry places, chiefly near the coast; common.

TORILIS Adans.

1. *Torilis anthriscus* (Gært.) *Caucalis Anthriscus* (Huds.) Benth.—*Upright Hedge Parsley*.

Waysides and hedges; not unfrequent. Between Howth and Baldoyle; near Warren House; St. Fintan's.

2. *T. nodosa* (Gært.) *Caucalis nodosa* (Huds.) Benth.—*Knotted Hedge Parsley*.

Sandy banks on the Burrow; frequent.

SCANDIX Linn.

1. *Scandix pecten-veneris* (Linn.)—*Shepherd's Needle*.

Cultivated fields about Drumleck and The Needles, appearing with the crops.

ANTHRISCUS Hoffm.

1. *Anthriscus sylvestris* (Hoffm.) *Chærophyllum sylvestre* (Linn.) Benth.—*Cow Parsley*.

Hedges, open woods, and ditches; common.

2. *A. vulgaris* (Pers.) *Chærophyllum anthriscus* (Lam.) Benth.—*Beaked Parsley*.

Not unfrequent in dry, sandy places on the Burrow; near the village of Howth in waste places. A rare species in Ireland.

CONIUM Linn.

1. *Conium maculatum* (Linn.)—*Hemlock*.

Waste places and roadsides; frequent.

SMYRNIUM Linn.

1. *Smyrniolum olusatrum* (Linn.)—*Alexanders*.

Frequent about houses, villages, and ruins.

ORDER XXVI.—*HEDERACEÆ*.*HEDERA* Linn.1. *Hedera helix* (Linn.)—*Ivy*.

Common. Ireland's Eye.

ORDER XXVII.—*CORNACEÆ*.*CORNUS* Linn.*1. *Cornus sanguinea* (Linn.)—*Cornel or Dog-wood*.

Thickets between Howth Castle and the Harbour.

ORDER XXVIII.—*CAPRIFOLIACEÆ*.*SAMBUCUS* Linn.1. *Sambucus nigra* (Linn.)—*Elder*.

Hedges and thickets; common.

LONICERA Linn.1. *Lonicera periclymenum* (Linn.)—*Honey-suckle*. *Woodbine*.

Hedges, borders of woods, and rocky places; common. Ireland's Eye.

ORDER XXIX.—*RUBIACEÆ*.*SHERARDIA* Linn.1. *Sherardia arvensis* (Linn.)—*Field Madder*.

Cultivated light soil and banks; frequent.

"Circa Warren House, juxta Howth;" Wade, 1794.

ASPERULA Linn.

1. *Asperula odorata* (Linn.)—*Sweet Woodruff*.
Shady places and woods ; not unfrequent.

GALIUM Linn.

1. *Galium aparine* (Linn.)—*Robin Run the Hedge*.
Goose-grass. Cleavers.

Hedges and thickets ; common. Ireland's Eye.

- *2. *G. erectum* (Huds.)—*Upright Bedstraw*.

Roadside banks at St. Fintan's Churchyard.
Hardly distinct from the following. Very rare in Ireland, and not recorded before from Howth.

- †3. *G. mollugo* (Linn.)—*Great Hedge Bedstraw*.

In the same locality as the last, also on a ditch-bank a little south of the old Race-course. Plentiful on the left embankment in ascending the new unfinished road, 1883-4-5-6. A rare plant in Ireland. Not recorded previously from Howth.

4. *G. verum* (Linn.)—*Yellow Bedstraw. Ladies' Bedstraw*.

Dry banks and sandhills near the sea ; abundant. Ireland's Eye.

5. *G. saxatile* (Linn.)—*Heath Bedstraw*.

Dry, stony, and grassy places amongst heath and gorse ; abundant. Ireland's Eye.

6. *G. palustre* (Linn.)—*Marsh Bedstraw*.

Wet places ; common.

Var. G. Witheringii (Sm.) By a deep pool at the side of the drive to The Cliffs.

RUBIA Linn.

1. *Rubia peregrina* (Linn.)—*Wild Madder*.

Casana's Rocks and elsewhere along the steep cliffs on the east side of Howth ; Drumleck, Ceanchor, Earlscliffe, and The Needles, on the south side, near the sea. Very local in Ireland. "It is likewise to be met with, but not in quantity, on the Hills of Howth and Dalkey, County Dublin ; flowering in August ;" *Wade*, 1804.

ORDER XXX.—VALERIANACEÆ.

CENTRANTHUS Linn.

*1. *Centranthus ruber* (D.C.)—*Red Valerian*.

Railway banks near Howth Station.

VALERIANA Linn.

[1. *Valeriana officinalis* (Linn.)—*Great Wild Valerian*.

I have no note of having observed this plant on Howth, but imagine it may have been overlooked. "Apud Howth ;" *Wade*, 1794.]*

* Since writing the above, I have observed a single plant amongst shrubs at the corner of Lord Howth's woods, at Woodside ; but it may have been introduced with seed of white foxglove.

VALERIANELLA Mœnch.

1. *Valerianella olitoria* (Mœnch). *Fedia olitoria*
(Vahl.)—*Corn-salad*.

By the railway, near Howth Station, on dry banks; sandy field east of Warren House; sandhills at the Cosh in the small native form. Hardly found except in such a situation. "Corn-fields on the Sutton side of Howth;" *Mackay*, 1824, sub *V. locusta*.

2. *V. dentata* (Deitr.)—*Narrow-fruited Corn-salad*.

Cultivated fields above Drumleck, The Needles, and The Cliffs; by the lane leading into The Flat Rocks, near St. Fintan's. "Corn-fields at Baldoyle;" *Cyb. Hyb.*, 1866.

ORDER XXXI.—DIPSACEÆ.

KNAUTIA Coult.

1. *Knautia arvensis* (Coult.) *Scabiosa arvensis*
Linn. (*Benth.*)—*Field Scabious*.

Cultivated fields, banks, and roadsides; frequent.

SCABIOSA Linn.

1. *Scabiosa succisa* (Linn.)—*Devil's-Bit*. *Wild Scabious*.

Grassy places and heaths; common. Ireland's Eye. One of our latest flowering plants.

ORDER XXXII.—COMPOSITÆ.

EUPATORIUM.

1. *Eupatorium cannabinum* (Linn.)—*Hemp Agrimony.*

Wet, bushy places and in ditches, especially along the sea banks; common. “Circa lavacrum in Howth, et alibi;” *Wade*, 1794.

PETASITES Gært.

1. *Petasites vulgaris* (Desf.) *Tussilago Petasites* Linn. (*Benth.*)—*Butterbur.*

Banks inside the road by the Harbour; at a quarryhole near Sutton.

- *2. *P. fragrans* (*Presl.*)—*Sweet Coltsfoot.*

Naturalized and thoroughly established at The Cliffs and elsewhere.

TUSSILAGO Linn.

1. *Tussilago farfara* (Linn.)—*Coltsfoot.*

Banks, damp fields, and waste places; common.

ASTER Linn.

1. *Aster tripolium* (Linn.)—*Sea Starwort.*

Round the coast; common, especially about Howth Station.

ERIGERON Linn.

1. *Erigeron acris* (Linn.)—*Blue Fleabane.*

Railway banks between Howth and Baldoyle, near the Bridge; and waste ground close by between the railway and the sea. A rare species in Ireland. “Between the rabbit-warren and Howth; on steep banks;” *Irish Flora*, 1833.

BELLIS Linn.1. *Bellis perennis* (Linn.)—*Daisy*.

Fields and banks ; common. Ireland's Eye.

SOLIDAGO Linn.1. *Solidago virgaurea* (Linn.)—*Golden Rod*.

Rocky places ; not common. Kilrock ; between Kilrock and Balscaddan ; by a small stream close to Howth Village on the south ; Drumleck Point ; Carrickbrack. Ireland's Eye.

INULA Linn.1. *Inula crithmoides* (Linn.) *Limbarda crithmoides* (*Flor. Hib.*)—*Golden Samphire*.

Rocky sea-coast from Kilrock to Bailey Lighthouse in many places ; at The Cliffs and near the Martello Tower on the south side. Ireland's Eye. A very local species in Ireland. "Inveni in rimis petrarum humidis infra pharos apud Howth ;" *Wade*, 1794.

PULICARIA Gært.1. *Pulicaria dysenterica* (Gært.)—*Fleabane*.

Damp fields, banks, and roadsides ; common.

ACHILLEA Linn.1. *Achillea ptarmica* (Linn.)—*Sneezewort*.

Very sparingly in a wet field border a little west of Lighthouse Green. Not a common species in the east of Ireland, and seldom found except in the mountainous districts or by large rivers. "Howth Hill ;" *Irish Flora*, 1833.

2. *A. millefolium* (Linn.)—*Yarrow*.

Pastures and roadsides ; common. Ireland's Eye.

ANTHEMIS Linn.†1. *Anthemis arvensis* (Linn.)—*Corn Chamomile*.

Light, dry soil in cultivated places ; very rare. Waste ground at Warren House, and in a field near it : corn-field above the village of Howth to the south. A very rare plant in Ireland, and not previously recorded from Howth.

2. *A. cotula* (Linn.)—*Stinking Chamomile*.

Cultivated fields ; frequent. "Common about Glasnevin, etc., and Howth : " *Irish Flora*, 1833.

MATRICARIA Linn.1. *Matricaria inodora* (Linn.) *Pyrethrum inodorum* Sm. (*Flor. Hib.*) *Chrysanthemum inodorum* Linn. (*Benth.*)—*Feverfew*.

Fields and waste places ; abundant. Ireland's Eye.

CHRYSANTHEMUM Linn.1. *Chrysanthemum leucanthemum*.—*Ox-Eye Daisy*.

Banks and meadows ; common.

2. *C. segetum* (Linn.)—*Corn Marigold*.

Abundant in cultivated fields, especially on the north side of the Hill.

ARTEMISIA Linn.*1. *Artemisia absinthium* (Linn.)—*Wormwood*.

Waste places and roadsides near houses. Plentiful about the Old Bailey Tavern ; by Gray's cottage

and in the village of Howth. Infusions of this plant are much relied on for stomachic disorders. The colonies on Howth seem to have been all derived from the Bailey, where I am told it always grew. "On the lands of Howth;" *Wade*, 1804.

2. *A. vulgaris* (Linn.)—*Mugwort*.

Borders of fields and roads; abundant. Ireland's Eye.

3. *A. maritima* (Linn.)—*Sea Wormwood*.

Rocks by the shore below The Cliffs and The Needles. Very rare; occurring also on Killiney Hill. "In muddy situations by the coast here and there about Howth;" *Wade*, 1804.

TANACETUM Linn.

*1. *Tanacetum vulgare* (Linn.)—*Tansy*.

Roadsides and waste places near houses. Bal-scaddan and elsewhere about the village of Howth; near Warren House; by the parish boundary near the road from Baldoyle. "Juxta delubrum vetustum in Howth, et alibi;" *Wade*, 1794.

FILAGO Linn.

1. *Filago germanica* (Linn.) *Gnaphalium germanicum* Huds. (*Flor. Hib.* and *Benth.*)—*Cudweed*.

Dry pastures and banks on a light soil; scarce and local. Sparingly at Lighthouse Green and on banks above the sea near Casana's Rocks; below Glenaveena. "Præcipue inter Clontarf et Howth, Burrow-of-Portmarnock juxta Baldoyle;" *Wade*, 1794.

GNAPHALIUM Linn.1. *Gnaphalium uliginosum* (Linn.)—*Marsh Cudweed*.

Not common. Damp ground at Butterly's Farm, and also a little west of Carrickbrack. "Sandy, wet places, Howth;" *Irish Flora*, 1833.

SENECIO Linn.1. *Senecio vulgaris* (Linn.)—*Groundsel*.

Cultivated and waste places; common. Ireland's Eye.

2. *S. viscosus* (Linn.)—*Viscid Groundsel*.

Waste places by the shore between Greenfields and Sutton. A very rare plant, occurring at most in one other Irish locality, near Belfast, if indeed it is still to be found there. "Inveni in arenosis maritimis, præsertim inter Clontarf et Howth;" *Wade*, 1794.

3. *S. sylvaticus* (Linn.)—*Heath Groundsel*.

Heaths and moorland, especially on the east side of the Hill, where it is abundant on partially reclaimed land. This plant and *Rumex acetosella* are the first to appear after the furze or heath has been burnt. Ireland's Eye. "Grounds on Howth;" *Irish Flora*, 1833.

4. *S. jacobæa* (Linn.)—*Ragweed*.

Moderately dry ground in all sorts of places; abundant. Ireland's Eye.

5. **S. erucifolius** (Linn.) *S. tenuifolius* Jacq.
(*Flor. Hib. and Brit. Flor.*)—*Hoary Ragweed.*

Banks and roadsides. By the railway from Baldoyle to Howth; by the roadside from Sutton to St. Fintan's, and by the old disused part of Long Lane. A very local species in Ireland. "Inveni in pascuis sterilioribus frequenter;" *Wade, 1794.*

6. **S. aquaticus** (Huds.)—*Marsh Ragweed.*

Wet places; common. "In palustribus apud Howth, et alibi copiose;" *Wade, 1794.*

CARLINA Linn.

1. **Carlina vulgaris** (Linn.)—*Carlina Thistle.*

Dry, gravelly banks and pastures; common, especially on the south and east coast. Ireland's Eye. "Apud *Burrow-of-Portmarnock* juxta Baldoyle;" *Wade, 1794.*

1. **Arctium minus** (Schk.) *A. Lappa* (Benth.)—*Burdock,*

Roadsides, waste places, and hedges; frequent. Ireland's Eye.

CENTAUREA Linn.

- ‡1. **Centaurea cyanus** (Linn.)—*Corn Bluebottle.*

Cultivated land; not common. Near Warren House; fields between Sutton and St. Fintan's; above Drumleck. "Corn-fields, Howth, etc.;" *Irish Flora, 1833.*

2. **C. nigra** (Linn.)—*Knapweed. Blackhead.*

Fields and banks; common. Ireland's Eye.

3. *C. scabiosa* (Linn.)—*Great Knapweed*.

Banks and borders of fields. By Warren House on the Burrow. A rare and local plant in Ireland. Not recorded previously from Howth.

CARDUUS Linn.

1. *Carduus tenuiflorus* (Curt.) *C. pycnocephalus* Jacq. (*Benth.*)—*Slender Thistle*.

Sandy and dry waste places ; frequent. Ireland's Eye.

†2. *C. crispus* (Linn.) *C. acanthoides* Linn. (*Brit. Flor., Flor. Hib.*)—*Wetted Thistle*.

Waste ground by the Martello Tower, Howth Village. A rare plant in Ireland, and not hitherto recorded from Howth.

3. *C. lanceolatus* (Linn.) *Cnicus lanceolatus* Willd. (*Flor. Hib. and Brit. Flor.*)—*Spear Thistle*.

Roadsides, fields, and waste places ; common. Ireland's Eye.

4. *C. arvensis* (Curt.) *Cnicus arvensis* Hoffm. (*Brit. Flor. and Flor. Hib.*)—*Creeping Thistle*.

Fields and waysides ; common. Ireland's Eye.

5. *C. palustris* (Linn.) *Cnicus palustris* Hoffm. (*Brit. Flor. and Flor. Hib.*)

Damp places ; common. Ireland's Eye.

SILYBUM Gært.

*1. *Silybum marianum* (Gært.) *Carduus marianus* Linn. (*Flor. Hib. and Brit. Flor.*)—*Milk Thistle*.

Waste places. Near the Martello Tower, Howth ; by the shore along the old Sutton Road. "Circa Warren-house ;" *Wade*, 1794.

LAPSANA Linn.1. *Lapsana communis* (Linn.)—*Nipplewort*.

Cultivated land and bushy places ; common. Ireland's Eye.

CICHORIUM Linn.‡1. *Cichorium intybus* (Linn.)—*Chicory*.

Pasture lands and waste places ; very rare. About Warren House ; near The Needles, where it was observed by Mrs. Mahaffy. Not previously recorded from Howth.

HYPOCHÆRIS Linn.1. *Hypochæris radicata* (Linn.)—*Cat's Ear*.

Meadows, fields, and waste ground ; common. Ireland's Eye.

THRINCIA Roth.1. *Thrincia hirta* (D.C.)—*Hairy Hawkbit*.

Pastures, banks, and meadows ; frequent.

APARGIA Schreb.1. *Apargia hispida* (Willd.)—*Rough Hawkbit*.

Banks at Sutton ; not common. "In pratis nonnunquam ;" *Wade*, 1794.

2. *A. autumnalis* (Willd.)—*Autumnal Hawkbit*.

Pastures, meadows, and heaths ; common. Ireland's Eye.

TRAGOPOGON Linn.

1. *Tragopogon pratensis* (Linn.)—*Yellow Goat's Beard*.

Sandy banks. By the railway close to Howth Station; Sealawn and Drumleck. Not mentioned from Howth by the old writers.

HELMINTHIA Juss.

1. *Helminthia echioides* (Gært.)—*Bristly Ox-tongue*.

Banks and borders of fields. By the quarry-hole near Byron House, Sutton, and on ditch-banks by a field above it plentifully. A very local plant in Ireland. "Howth and Kilbarrack, etc.;" *Irish Flora*, 1833.

LEONTODON Linn.

1. *Leontodon taraxacum* (Linn.) *Taraxacum officinale* Wigg. *T. dens-Leonis* Desf. (Benth.)—*Dandelion*.

Banks, roadsides, and fields; abundant. Ireland's Eye.

SONCHUS Linn.

1. *Sonchus oleraceus* (Linn.)—*Common Sow-thistle*.

Banks, fields, and waste ground; frequent. Ireland's Eye.

2. *S. asper* (Hoffm.)—*Rough Sow-thistle*.

Cultivated land and banks, especially above the sea-cliffs from Kilrock to the Lighthouse. Doubtfully distinct from the last species. Ireland's Eye.

3. *S. arvensis* (Linn.)—*Corn Sow-thistle*.

Cultivated fields and banks near the sea ; frequent.

CREPIS Linn.*1. *Crepis taraxacifolia* (Thuil.)—*Small Rough Hawk's-beard*.

Banks by the railway and roadsides on the south side of the Hill and at Sutton House ; frequent. Very rare in Ireland, and confined to the neighbourhood of Dublin. "Sandy fields about Baldoyle, Kilbarrack, Portmarnock, and Howth ;" *Irish Flora*, 1833.

2. *C. virens* (Linn.)—*Smooth Hawk's-beard*.

Dry, cultivated places and roadsides ; frequent.

HIERACIUM Linn.1. *Hieracium pilosella* (Linn.)—*Mouse-ear Hawkweed*.

Banks, roadsides, and dry places generally ; frequent. Ireland's Eye.

ORDER XXXIII.—*CAMPANULACEÆ*.*JASIONE* Linn.1. *Jasione montana* (Linn.)—*Sheep's Scabious*.

Rocky, sandy, and dry heathy places ; frequent. Ireland's Eye.

CAMPANULA Linn.1. *Campanula rotundifolia* (Linn.)—*Hairbell*.

Sandy banks and rocky places ; frequent. On the Cosh. Ireland's Eye.

ORDER XXXIV.—ERICACEÆ.

CALLUNA Salisb.

1. *Calluna vulgaris* (Salisb.)—*Common Ling or Heath.*

Abundant on the upper parts of Howth. Ireland's Eye.

ERICA Linn.

1. *Erica cinerea* (Linn.)—*Scotch Heather.*

Common on the upper parts of Howth. Ireland's Eye. The absence of *Erica tetralix* is remarkable; it does not, however, appear to occur on some of the south-eastern Irish mountain groups.

VACCINIUM Linn.

1. *Vaccinium myrtillus* (Linn.)—*Bilberry.*
Howth Demesne and Carrickbrack.
-

ORDER XXXV.—AQUIFOLIACEÆ.

ILEX Linn.

1. *Ilex aquifolium* (Linn.)—*Holly.*

Not common; between Carrickbrack and the Bailey Post Office. Howth Demesne. "Howth Hills;" *Irish Flora*, 1833.

ORDER XXXVI.—OLEACEÆ.

FRAXINUS Linn.1. *Fraxinus excelsior* (Linn.)—*Ash*.

Woods, hedges, and rocky places ; frequent.

LIGUSTRUM Linn.1. *Ligustrum vulgare* (Linn.)—*Privet*.

Frequent in hedges where planted. Native on steep, grassy cliffs, in almost inaccessible places along the east side of Howth, from about half to three quarters of a mile north of the Lighthouse. The Privet grows here in a fringe at the juncture of the sea rocks with the steep, grassy slopes, prostrate and stunted, having stems often an inch in diameter. The locality is far removed from any introduced species, and the manner and extent of its growth satisfy me the plant is here indigenous. I have gathered Privet along the Waterford coast from Stradbally westward in similar situations and certainly native. Howth and the Waterford coast are its only indigenous Irish stations yet discovered. The present locality has not before been recorded.

ORDER XXXVII.—APOCYNACEÆ.

*1. *Vinca major* (Linn.)—*Greater Periwinkle*.

Naturalized in several places near houses, as at Greenfields ; by the roadside near The Cliffs.

*2. *V. minor* (Linn.)—*Lesser Periwinkle*.

Abundantly established in woods about Howth Castle.

ORDER XXXVIII.—GENTIANACEÆ.

CHLORA Linn.1. *Chlora perfoliata* (Linn.)—*Yellow-wort*.

Frequent on dry pastures, and occurring on all sides of the Hill. Ireland's Eye. "Inter Clontarf et Howth copiose," *Wade*, 1794.

ERYTHRÆA Ren.1. *Erythræa centaurium* (Pres.)—*Centaury*.

Dry pastures and sandy places; abundant; very variable. The form *E. pseudo-latifolium* occurs near the Lighthouse and elsewhere. Ireland's Eye.

GENTIANA Linn.1. *Gentiana amarella* (Linn.)—*Small-flowered Gentian*.

Sandy pasture on the Cosh. A scarce species in Ireland.

2. *G. campestris* (Linn.)—*Field Gentian*.

Hilly pastures, and near the coast. Fields by the Bailey Lighthouse; near The Needles. "Juxta Warren House via ad Howth ducente;" *Wade*, 1794.

MENYANTHES Linn.1. *Menyanthes trifoliata* (Linn.)—*Buckbean*.
Bogbean.

Wet places on the upper part of Howth.

ORDER XXXIX.—CONVOLVULACEÆ.

CONVOLVULUS Linn.1. *Convolvulus arvensis* (Linn.)—*Small Bindweed.*

Banks and borders of fields. Abundant along the railway from Howth to Baldoyle; banks by the sea at Sutton and about Warren House; Howth village, &c. A local species in Ireland. “Ad semitas juxta Old Abbey, Howth;” *Wade*, 1794.

1. *C. sepium* (Linn.)—*Bindweed.*

Hedges, bushy places, and in gardens; common.

2. *C. soldanella* (Linn.)—*Sea Bindweed.*

Very sparingly by the shore at Greenfields, where it was shown to me by Mrs. Mahaffy.

ORDER XL.—BORAGINACEÆ.

CYNOGLOSSUM Linn.1. *Cynoglossum officinale* (Linn.)—*Hound's-tongue.*

Sandy waste places, and pastures by the coast. Frequent upon the Burrow; between Drumleck and the Bailey Lighthouse; on the Cosh. Ireland's Eye. Very local in Ireland. “In via ad Howth ducente, prope Warren House;” *Wade*, 1794.

LYCOPSIS Linn.1. *Lycopsis arvensis* (Linn.)—*Field Bugloss*.

Sandy soil near the sea ; frequent. Ireland's Eye. "Sandy fields near Kilbarrack Church, and about Baldoyle, &c.;" *Mackay*, 1824.

SYMPHYTUM Linn.1. *Symphytum officinale* (Linn.)—*Comfrey*.

Damp soil by rivers and ditches. Near Greenfields ; Warren Lodge, and elsewhere. Often introduced as a fodder plant in Ireland.

ECHIUM Linn.1. *Echium vulgare* (Linn.)—*Viper's Bugloss*.

Sandy fields and dry, waste places. About Warren House, and sandy ground in front of it. A rare plant in Ireland, and not recorded previously from Howth.

LITHOSPERMUM Linn.1. *Lithospermum officinale* (Linn.)—*Common Gromwell*.

Dry, stony ground, rare. I have gathered it only on waste ground by the sea below the Deer Park. "Prope Old Abbey, Howth ;" *Wade*, 1794.

2. *L. arvense* (Linn.)—*Field Gromwell*.

Cultivated land and waste places ; local. Steep banks above the sea near Piper's Gut, sparingly in one place only.

MYOSOTIS Linn.

1. *Myosotis cæspitosa* (Schultz.)—*Tufted Water Scorpion Grass.*

Watery places ; frequent.

2. *M. repens* (Don.)—*Creeping Water Scorpion Grass.*

Near Killock.

3. *M. arvensis* (Hoffm.)—*Field Scorpion Grass. Small Forget-me-not.*

Fields and banks ; common. Ireland's Eye.

4. *M. collina* (Hoffm.)—*Early Scorpion Grass.*

Sandhills and banks near the sea. Bailey Light-house ; Cosh ; by fields between Kilbarrack and Warren Lodge. Ireland's Eye. A local Irish species not before recorded from Howth.

5. *M. versicolor* (Linn.)—*Yellow and Blue Scorpion Grass.*

Pastures and banks ; frequent, especially on the south side of the Hill. Ireland's Eye.

ORDER XLI.—SOLANACEÆ.

SOLANUM Linn.

1. *Solanum dulcamara* (Linn.)—*Bittersweet. Nightshade.*

Bushy places, hedges, and ditches. In several places in the Demesne ; near Sutton, and about St. Fintan's ; in the Deer Park.

HYOSCYAMUS Linn.

1. *Hyoscyamus niger* (Linn.)—*Henbane*.

Waste places and sandhills; rare. Formerly grew upon the shore between Sutton and Greenfields; but I have not seen it there for several years. In profusion at the east end of Ireland's Eye. "Circa Howth et alibi;" *Wade*, 1794.

LYCIUM Linn.

*1. *Lycium barbarum* (Linn.)—*African Tea-plant*.

Thoroughly established in sandy ground, and by the roadside along the shore between Greenfields and Sutton. An African species naturalised on the coast in many British localities.

ORDER XLII.—OROBANCHACEÆ.

1. *Orobanche hederæ* (Duby). *O. minor* (subsp.)
Hooker—*Ivy Broom-rape*.

Parasitical on Ivy. Very sparingly on banks above the sea, both north and south of Piper's Gut. A local species. "Hill of Howth, south side; on steep banks near the sea;" *Mackay*, 1824.

ORDER XLIII.—SCROPHULARIACEÆ.

VERBASCUM Linn.

1. *Verbascum thapsus* (Linn.)—*Great Mullein*.

Banks and waste places; near The Cliffs and elsewhere on the south side of Howth; sparingly. South side of Ireland's Eye. "Sandy fields between Baldoyle and Howth;" *Irish Flora*, 1833.

DIGITALIS Linn.

1. *Digitalis purpurea* (Linn.)—*Foxglove. Fairy Thimble.*

Rocky places, banks, and borders of woods; common. Usually appears abundantly where a wood has been cleared by storms or human agency.

LINARIA Linn.

- *1. *Linaria minor* (Desf.)—*Lesser Toadflax.*

Waste and cultivated ground; very scarce. Occasionally, and sometimes abundantly, as a garden weed about Howth, as at Hillside. This uncertain species appears to be increasing in the counties of Dublin and Wicklow. It is a characteristic casual of railway embankments. Not before recorded from Howth.

- *2. *L. cymbalaria* (Mill.)—*Ivy-leaved Toadflax.*

Walls and houses. Well established along the roadside walls between Kilbarrack and Sutton at a considerable distance from houses.

3. *L. vulgaris* (Mill.)—*Yellow Toadflax.*

Banks and edges of fields. Roadside at Drumleck; at The Needles; shore between Kilbarrack and Greenfields; not common. "Sandy fields between Baldoyle and Howth;" *Irish Flora*, 1833.

SCROPHULARIA Linn.

1. *Scrophularia nodosa* (Linn.)—*Figwort.*

Banks, woods, and waste places; frequent.

MELAMPYRUM Linn.1. *Melampyrum pratense* (Linn.)—*Cow-wheat*.

Heaths and woods in mountainous districts. Carrickbrack. "Woods on the sides of the bushy mountains above the Long Lane near Sutton House, on Howth;" *Irish Flora*, 1833.

PEDICULARIS Linn.1. *Pedicularis palustris* (Linn.)—*Marsh Red Rattle*.

Wet places, especially on turf. In a marsh near the summit of Howth.

2. *P. sylvatica* (Linn.)—*Red Rattle*. *Lousewort*.

Heaths and damp pastures; common. Ireland's Eye.

RHINANTHUS Linn.1. *Rhinanthus crista-galli* (Linn.)—*Yellow Rattle*.

Meadows, banks, and pastures; common.

EUPHRASIA Linn.1. *Euphrasia officinalis* (Linn.)—*Eyebright*.

Meadows, pastures, and heathy places; abundant. Ireland's Eye.

2. *E. odontites* (Linn.) *Bartsia odontites* (Huds.)
Red Bartsia.

Roadsides and waste places in damp soil; frequent.

MIMULUS Linn.

*1. *Mimulus luteus* (Linn.)—*Yellow Mimulus*.

Established in a wild locality by a rivulet between Shelmartin and St. Fintan's. An American species widely naturalized of late years in the British Isles.

VERONICA Linn.

1. *Veronica scutellata* (Linn.)—*Marsh Speedwell*.

Marshy ground near the summit of Howth; in a marshy spot near Cabeena's. Very scarce now in consequence of drainage. "Plentiful on the Hill of Howth;" *Mackay*, 1824.

2. *V. anagallis* (Linn.)—*Water Speedwell*.

Watery places. Deep ditches about Greenfields and in a boggy hole between that and Sutton; pools at the Flat Rocks.

3. *V. beccabunga* (Linn.)—*Brooklime*.

Streams and ditches; frequent.

4. *V. chamædryas* (Linn.)—*Germander Speedwell*.

Banks, woods, and fields; common. Ireland's Eye.

5. *V. officinalis* (Linn.)—*Common Speedwell*.

Heaths, pastures, and banks; frequent. Ireland's Eye.

6. *V. serpyllifolia* (Linn.)—*Thyme-leaved Speedwell*.

Moist places in cultivated and waste ground; frequent.

7. *V. arvensis* (Linn.)—*Wall Speedwell*.

Dry banks, pastures, waysides, and on old walls ; frequent. Ireland's Eye.

8. *V. agrestis* (Linn.)—*Green Field Speedwell*.

Cultivated places ; not unfrequent.

9. *V. polita* (Fries.)—*Gray Field Speedwell*.

Waste ground near the railway by the Quarry.

*10. *V. Buxbaumii* (Ten.)—*Persian Speedwell*.

Banks about Sutton ; not common.

11. *V. hederifolia* (Linn.)—*Ivy-leaved Speedwell*.

Banks, fields, and waste places ; common.

ORDER XLIV.—LABIATÆ.

MENTHA Linn.*1. *Mentha sylvestris* (Linn.)—*Horse-mint*.

Plentiful on banks by a long-disused quarry near Sutton. Growing amongst native plants and looking quite wild. A very rare plant in Ireland ; hitherto recorded from one or two places in the south, but probably nowhere native.

2. *M. aquatica* (Linn.)—*Water Mint*.

In several watery places.

3. *M. sativa* (Linn.)—*Marsh Mint*.

Damp banks. Field between Woodside and Balcaddan. This is not separable, in my opinion, from *M. aquatica*.

4. *M. arvensis* (Linn.)—*Corn Mint*.

Cultivated fields; common on the north side of the Hill.

SALVIA Linn.1. *Salvia verbenaca* (Linn.)—*Clary. Sage*.

Dry banks and waysides. Abbey grounds; in many places on the Burrow of Howth and about the south side of the Hill. "Along the shore from Clontarf to Howth;" *Irish Flora*, 1833.

THYMUS Linn.1. *Thymus serpyllum* (Linn.)—*Wild Thyme*.

Pastures, banks, and dry heaths; common. Ireland's Eye.

SCUTELLARIA Linn.1. *Scutellaria minor* (Linn.)—*Lesser Skull-cap*.

In a marshy place near Cabeena's, and in several places along Whitewater Brook. Wade, in his "Plantæ Rariores," 1804, records *Scutellaria galericulata* as found "in the marshes at Howth." No doubt he gathered *S. minor*, which has not been before recorded from the County Dublin, and finds here its northern limit on the east side of Ireland.

PRUNELLA Linn.1. *Prunella vulgaris* (Linn.)—*Self-heal*.

Fields and pastures; common. Ireland's Eye.

NEPETA Linn.1. *Nepeta glechoma* (Benth.)—*Ground Ivy*.

Woods and banks; common. Ireland's Eye.

LAMIUM Linn.

1. *Lamium amplexicaule* (Linn.)—*Henbit*
Dead-nettle.

Waste and sandy places. Frequent on the Burrow and in north Sutton; behind McKenna's Hotel, Howth.

2. *L. purpureum* (Linn.)—*Red Dead-nettle.*

Cultivated land, roadsides, and waste places; frequent.

3. *L. album* (Linn.)—*White Dead-nettle.*

Banks and roadsides; rare. Abundant on the upper bank of a field opposite the National Schools, Howth; in the Abbey grounds and elsewhere about Howth village; near Howth Church on the roadside.

- [4. *Lamium incisum* (Willd.)—*Cut-leaved Dead-nettle.*

I am doubtful of the occurrence of this species, but feel almost sure I have gathered it. "Corn-fields, Howth;" *Irish Flora*, 1833.]

GALEOPSIS Linn.

- †1. *Galeopsis ladanum* (Linn.)—*Red Hemp-nettle.*

Banks and corn-fields; very rare. Fields between St. Fintan's and Sutton, and above Drumleck; by the railway near Sutton Station. Uncertain, but has been observed by me for many years since 1866. Confined to two or three eastern counties. "Broken grounds, Howth;" *Irish Flora*, 1833.

2. *G. tetrahit* (Linn.)—*Common Hemp-nettle*.

Cultivated fields; frequent. A yellow variety occurs occasionally, but not the *G. versicolor* of the northern counties.

STACHYS Linn.1. *Stachys sylvatica* (Linn.)—*Hedge Woundwort*.

Hedges and shady places. About Howth village and Howth Castle; near the Bailey Post Office; not common.

2. *S. palustris* (Linn.)—*Woundwort*.

Cultivated land; common.

†3. *S. arvensis* (Linn.)—*Field Woundwort*.

Cultivated land. By the Martello Tower in the village of Howth; in potato gardens and waste ground opposite the Abbey gate. A local but apparently increasing species in Ireland. Not recorded before from the County Dublin.

BALLOTA Linn.‡1. *Ballota nigra* (Linn.)—*Black Horehound*.

Roadsides and waste places; rare. Abbey grounds and elsewhere about Howth village; near Warren House. “Apud Howth prope cœnobium vetustum;” *Wade*, 1794.

TEUCRIUM Linn.1. *Teucrium scorodonia* (Linn.)—*Wood Sage*.

Banks, borders of woods, and bushy or stony places; abundant. Ireland's Eye.

ORDER XLV.—LENTIBULARIACEÆ.

PINGUICULA Linn.1. *Pinguicula vulgaris* (Linn.)—*Butterwort*.

In several marshy places on the upper part of Howth; at Balscaddan. “Apud Howth, australi parte;” *Wade*, 1794.

ORDER XLVI.—PRIMULACEÆ.

PRIMULA Linn.1. *Primula vulgaris* (Huds.) *P. veris* var.
(*Bentham*).—*Primrose*.

Pastures, woods, and banks; common. Ireland's Eye.

2. *P. veris* (Linn.)—*Cowslip*.

Meadows, banks, and pastures; common. The Oxlip, a hybrid between the Primrose and Cowslip, occurs occasionally.

LYSIMACHIA Linn.1. *Lysimachia nemorum* (Linn.)—*Wood Loosestrife*. *Yellow Pimpernel*.

Shady banks and damp places in woods; frequent.

ANAGALLIS Linn.1. *Anagallis arvensis* (Linn.)—*Scarlet Pimpernel*.

Cultivated fields and banks by the sea; frequent. The very rare variety, *A. cærulea* *Schreb.*, has occurred at The Hut; Mrs. Porter. Ireland's Eye.

2. *A. tenella* (Linn.)—*Bog Pimpernel*.

Bogs and damp pastures. Marshy ground in the inner part of Howth; frequent. Ireland's Eye.

GLAUX Linn.1. *Glaux maritima* (Linn.)—*Black Saltwort*.

Salt marshes; common. Ireland's Eye.

SAMOLUS Linn.1. *Samolus valerandi* (Linn.)—*Brook-weed*.

Wet or damp places, chiefly by the sea. Kilrock, Howth Station, Sutton, and elsewhere. Ireland's Eye. "Prope lavacra in Howth;" *Wade*, 1794.

ORDER XLVII.—PLUMBAGINACEÆ.

1. *Statice bahusiensis* (Fries.) *S. Limonium* var. (*Benth.*)—*Marsh Sea-lavender*.

Marshes, or wet, stony places by the sea. Sparingly at the little harbourage west of The Cliffs, and on rocks at The Cliffs. A local species generally in Ireland, and very scarce on Howth, but frequent elsewhere on the northern Dublin coast. "Muddy shores between Howth and Baldoyle;" *Irish Flora*, 1833.

2. *S. occidentalis* (Lloyd). *S. spathulata*; *S. binervosa*, and *S. auriculæfolia* of other authors.—*Rock Sea-lavender*.

Rocky places, [and dry, steep banks along the coast. On the east coast of Howth, from the Bailey Lighthouse northwards, about half way to Kilrock.

Samper's Hole, Ireland's Eye. A local plant in Ireland. "On the south side of Howth, on banks near the sea;" *Mackay*, 1824.

ARMERIA Willd.

1. *Armeria maritima* (Willd.)

Common along the coast. Ireland's Eye.

ORDER XLVIII.—PLANTAGINACEÆ.

PLANTAGO Linn.

1. *Plantago coronopus* (Linn.)

Sea-coast; common. Ireland's Eye.

2. *P. maritima* (Linn.)

Sea-coast; common. Ireland's Eye.

3. *P. lanceolata* (Linn.)

Meadows and fields; common. Ireland's Eye.

4. *P. major* (Linn.)

Waste places, waysides, and pastures; common. Ireland's Eye.

ORDER XLIX.—CHENOPODIACEÆ.

SUÆDA Forsk.

1. *Suæda maritima* (Dum.) *Chenopodium maritimum* (Linn.) (*Flor. Hib.*)—*Sea Blite*.

Muddy sea-shore at Cosh, Howth, and Sutton. "Apud Howth," &c.; *Wade*, 1794.

SALSOLA Linn.1. *Salsola kali* (Linn.)—*Prickly Saltwort*.

Sandy sea-shore at the Cosh, and between that and Howth Harbour; abundant on Ireland's Eye. "Apud Howth," &c.; *Wade*, 1794.

CHENOPODIUM Linn.1. *Chenopodium album* (Linn.)—*White Goose foot. Fat Hen*.

Cultivated and waste land; common. Ireland's Eye.

BETA Linn.1. *Beta maritima* (Linn.)—*Sea Beet*.

Sea-shores; common. Very abundant on the tabular-topped rock at the north-east corner of Ireland's Eye.

SALICORNIA Linn.1. *Salicornia herbacea* (Linn.)—*Marsh Samphire*.

Muddy sea-shore at the Cosh, Howth, and Baldoyle Stations, and elsewhere. "Apud Howth," &c.; *Wade*, 1794.

ATRIPLEX Linn.1. *Atriplex littoralis* (Linn.) *A. patula* var. (*Benth.*)—*Grass-leaved Sea Orache*.

Muddy shore at Sutton, and by the Baldoyle Station. A very rare species in Ireland. "In a muddy soil at the S.W. side of Howth;" *Wade*, 1804.

2. *A. augustifolia* (Sm.)—*Narrow-leaved Orache*.

Waste ground, and borders of fields; frequent; chiefly near the sea.

3. **A. hastata** (Linn.) *A. patula*. Linn. (*Brit. Flor.*)—*Common Orache*.

Cultivated and waste ground ; common. Ireland's Eye.

4. **A. Babingtonii** (Woods.) *A. patula* var. (*Benth.*)
—*Babington's Sea Orache*.

Sea-shore ; common. Ireland's Eye.

OBIONE (Gært.)

1. **Obione portulacoides** (Moq.) *Atriplex port.*
Linn. (*Brit. Flor., etc.*)—*Sea Purslane*.

Rocky banks by the sea at the Martello Tower below Sutton, and again about a hundred yards south of it ; in two places on the rocks below The Cliffs, about a mile further south from the last station. A very rare species, confined in Ireland to four or five localities on the east coast. "At Howth, on the muddy, clayey part of the sea-shore, Sutton side ;" *Wade*, 1804.

ORDER L.—POLYGONACEÆ.

RUMEX Linn.

1. **Rumex conglomeratus** (Murr.) *R. acutus*
(Linn.)—*Sharp-leaved Dock*.

Fields, waysides, and waste places ; abundant. Ireland's Eye.

2. **R. sanguinea** (Linn.)—*Bloody-veined Dock*.

Moist and shady places ; frequent.

3. **R. obtusifolius** (Linn.)—*Broad-leaved Dock*.

Damp meadows and waste places ; common. Ireland's Eye.

4. *R. crispus* (Linn.)—*Curled Dock*.

Dry places ; frequent. Ireland's Eye.

5. *R. acetosa* (Linn.)—*Sorrel Dock*.

Banks, fields, and rocky places ; common. Ireland's Eye.

6. *R. acetosella* (Linn.)—*Sheep's Sorrel*.

On light or turfy soil ; common. Ireland's Eye.

POLYGONUM Linn.1. *Polygonum amphibium* (Linn.)—*Water Bistort*.

Watery places, and on damp ground ; frequent. The form, with floating leaves, occurs in the Fish Pond at Howth Demesne. Ireland's Eye.

2. *P. lapathifolium* (Linn.)—*Pale-flowered Persicaria*.

Fields and waste places ; frequent.

3. *P. persicaria* (Linn.)—*Persicaria*.

Fields and damp places ; common.

4. *P. hydropiper* (Linn.)—*Water Pepper*.

Damp places ; common.

5. *P. aviculare* (Linn.)—*Knot Grass*.

Fields and waysides ; common. Ireland's Eye.

6. *P. Raii* (Bab.)—*Ray's Knot Grass*.

Sandy sea-shore at Sutton ; between Baldoyle and Howth ; plentiful on Ireland's Eye.

7. *P. convolvulus* (Linn.)—*Black Bindweed*.

Cultivated fields on a light soil and waste places ; common. Ireland's Eye.

ORDER LI.—EUPHORBIACEÆ.

EUPHORBIA Linn.1. *Euphorbia helioscopia* (Linn.)—*Sun Spurge*.

Cultivated land and waste places ; common.

2. *E. paralias* (Linn.)—*Sea Spurge*.

Sandy coasts at Cosh and Ireland's Eye. "Upon the sandy shoar between the Warren-house and Raheny ;" *Threlkeld*, 1727 (*sub Tithymalus Paralias*). "On the sand-hills between Howth and Baldoyle ;" *Mackay*, 1824.

3. *E. peplus* (Linn.)—*Petty Spurge*.

Cultivated land and waste places ; frequent.

4. *E. exigua* (Linn.)—*Dwarf Spurge*.

Cultivated fields ; rare. Fields between Sutton and St. Fintan's ; by the roadway on waste ground leading to quarry holes under Shelmartin. "About Howth," &c. ; *Irish Flora*, 1833.

ORDER LII.—CALLITRICHACEÆ.

Callitriche verna (Linn.) *Var. stagnalis*.—

Water Starwort.

Muddy and watery places ; frequent. *Var. C. platycarpa* (Kuntz) is also frequent. Ireland's Eye.

ORDER LIII.—URTICACEÆ.

PARIETARIA Linn.1. *Parietaria diffusa* (Koch.)—*Pellitory*.

Old walls and ruins at Howth village and Sutton. Plentiful in many places. “Apud delubrum vetustum in promontorio Howth;” *Wade*, 1794.

URTICA Linn.1. *Urtica urens* (Linn.)—*Small Nettle*.

Roadsides and waste places; common.

2. *U. dioica* (Linn.)—*Nettle*.

Hedges, waysides, and waste places; common. Ireland's Eye.

HUMULUS Linn.*1. *Humulus lupulus* (Linn.)—*Hop*.

Thoroughly established in hedges and waste ground at Drumleck. Not native anywhere in Ireland.

ORDER LIV.—ULMACEÆ.

ULMUS Linn.*1. *Ulmus campestris* (Linn.) *U. suberosa* (Ehrh.)—*Elm*.

Hedges and thickets. Doubtfully native.

ORDER LV.—AMENTIFERÆ.

SALIX Linn.†1. *Salix alba* (Linn.)—*White Willow*.

Damp and watery places. By the railway between Baldoyle and Howth; abundant, and long established, if not native, by a sequestered little pond near Sutton.

*2. *S. viminalis* (Linn.)—*Common Osier*.

In several damp places; railway between Baldoyle Station and Howth.

†3. *S. smithiana* (Willd.)—*Smith's Osier*.

With the last, and elsewhere, as in hedgerows by the roadside at The Needles. Probably a hybrid between *S. viminalis* and *S. cinerea*.

4. *S. cinerea* (Linn.)—*Gray Sallow*.

By a pond near Sutton, and in the Demesne.

5. *S. aurita* (Linn.)—*Round-eared Willow*.

Wet, heathy, and hilly places. Loughoreen Hills; Carrickbrack, and elsewhere.

6. *S. repens* (Linn.) *S. fusca* (Linn.)

Sandy places and heaths chiefly near the sea. Cosh, Drumleck, and elsewhere. Ireland's Eye.

BETULA Linn.1. *Betula alba* (Linn.)—*Birch*.

Frequent; appears native south-west from Shelmartin. Neither this nor the following species occurs on the cliffs or upper parts of the Hill except where planted.

ALNUS Tourn.1. *Alnus glutinosa* (Gært.)—*Alder*.

Frequent in wet places. Probably native in the Demesne.

QUERCUS Linn.1. *Quercus robur* (Linn.)—*Oak*.

Rocky banks on the east side of Howth. A stunted form of the native oak prevails on sea cliffs in many parts of Ireland.

CORYLUS Linn.1. *Corylus avellana* (Linn.)—*Hazel*.

Copses and thickets. Howth Demesne and elsewhere.

ORDER LVI.—ORCHIDACEÆ.

ORCHIS Linn.1. *Orchis morio* (Linn.)—*Green-winged Orchis*.

Pastures. In a field between Kilbarrack and Warren Lodge near the parish boundary; field at the seaward side of the road immediately below Carrickbrack House. A local species in Ireland. *Fl.* May, June.

2. *O. mascula* (Linn.)—*Early Purple Orchis*.

Woods and shady banks; frequent. Howth Demesne. *Fl.* April, May.

3. *O. latifolia* (Linn.)—*Marsh Orchis*.

Wet places in the Demesne. The form *O. incarnata* occurs in sandy pastures on the Cosh.

4. *O. maculata* (Linn.)—*Spotted Orchis*.

Meadows, pastures, woods, and heaths. The commonest Orchis.

5. *O. pyramidalis* (Linn.)—*Pyramidal Orchis*.

Pastures, dry banks, and sandhills by the sea. Common along the railway banks; Cosh; about Warren House and Baldoyle Station; The Needles. A local species in Ireland, but with a wide distribution on sand-hills.

GYMNADENIA R. Br.1. *Gymnadenia conopsea* (R. Br.)—*Fragrant Orchis*.

Dry banks. By the railway near the Bridge; at Balscaddan. "Moist places, Howth;" *Irish Flora*, 1833.

LISTERA R. Br.1. *Listera ovata* (R. Br.)—*Twayblade*.

Woods and damp pastures. By the railway near the Bridge; Gray's Wood; Howth Demesne near the pond.

OPHRYS Linn.1. *Ophrys apifera* (Huds.)—*Bee Orchis*.

Pastures, meadows, or sandhills. Not constant in its appearances. Sparingly at Beachfields, and more plentifully at Sea Lawn, 1881, '82, '85, '87, where it was shown to me by Mrs. Mahaffy. A rare plant in Ireland, and not previously recorded from Howth.

ORDER LVII.—IRIDACEÆ.

IRIS Linn.

1. *Iris pseud-acorus* (Linn.)—*Yellow Flag*.
Yellow Iris.

Wet places ; frequent.

- ‡2. *Iris foetidissima* (Linn.)—*Stinking Iris*.
Roast-beef Plant.

Occurs near cottages in two or three places on the Hill, where it has established itself. Very abundant at Greenfields on the Sutton side ; looking native. On Ireland's Eye. A habitat for this plant, which I have recently discovered on Lambay, leads me to believe that it may be native on the east coast of Ireland. The seeds may, however, have been carried there by birds. Darwin states that there is no known exception to the rule that seeds embedded in a fleshy and bright-coloured envelope are so disseminated. "On Ireland's Eye, Howth," etc. ; *Wade*, 1804.

ORDER LVIII.—AMARYLLIDACEÆ.

NARCISSUS Linn.

- *1. *Narcissus biflorus* (Curt.)—*Pale Two-flowered Narcissus*.

About Greenfields and the neighbourhood, but not native on Howth. "In the closes near Clantarrff, and under the skirts of the Hill of Hoath, and in some closes near Doulack's-well ;" *Threlkeld*, 1727. (Sub "*Narcissus sylvestris pallidus calyce luteo.*")

- *2. *N. pseudo-narcissus* (Linn.)—*Daffodil*.
Lent Lily.

Fields on the Sutton side of Howth, looking less like an introduced species than the last.

ORDER LIX.—LILIACEÆ.

SCILLA Linn.

1. *Scilla verna* (Huds.)—*Spring Squill*.

Pastures and on rocky banks by the sea. Kilrock ; east side of Howth, half-way between Kilrock and the Bailey Lighthouse, and at the Lighthouse ; Earlscliff, Drumleck, The Cliffs, and elsewhere on the south side ; about half a mile inland above Balsaggart. Ireland's Eye. Begins to flower end of March. "On the dry pasture ground to the west of the Lighthouse, Howth, and on Ireland's Eye ;" *Wade*, 1804.

ALLIUM Linn.

1. *Allium ursinum* (Linn.)—*Ramsons*. *Wood Onion*.

Woods and damp thickets. Howth Demesne and Howth Church ; Greenfields.

2. *A. vineale* (Linn.)—*Crow Garlic*.

Pastures and banks. Plentiful at Greenfields between the house and the Sutton shore, where it is very injurious to the early pasturage ; banks by the roadside between Kilbarrack and Sutton. Not before recorded from Howth.

ENDYMION Dum.

1. **Endymion nutans** (Dum.) *Hyacinthus non-scriptus* (Linn.) *Agraphis nutans* (Link.) *Scilla nutans* (Sm.)—*Blue-bell. Wild Hyacinth.*

Woods, thickets, sea-banks, and heathy places; common. Occurs white on Ireland's Eye. The later flowering *Scilla campanulata*, an introduced species from Southern Europe, is established at Greenfields and in Lord Howth's Demesne, near the Fish Pond and elsewhere.

ORDER LX.—JUNCACEÆ.

NARTHECIUM Huds.

1. **Narthecium ossifragum** (Huds.)—*Bog Asphodel.*

Frequent in marshy ground in the interior of Howth.

JUNCUS Linn.

1. **Juncus maritimus** (Sm.)—*Sea Rush.*

Wet places by the coast. Sea-shore on the Cosh.

2. **J. conglomeratus** (Linn.) *J. communis* var. (Meyer).—*Close-flowered Rush.*

Damp places; common. Ireland's Eye.

3. **J. effusus** (Linn.) *J. communis* var. (Meyer).—*Loose-flowered Rush.*

Wet places; frequent. Ireland's Eye.

4. **J. glaucus** (Ehrh.)—*Hard Rush. Glaucous Rush.*

Damp, grassy places near the sea. Balscaddan and the Cosh. Eaten by cattle.

5. *J. acutiflorus* (Ehrh.) *J. articulatus* (Linn.)—
Sharp-flowered Rush.

Wet places at The Cliffs and elsewhere.

6. *J. lamprocarpus* (Ehrh.) *J. articulatus*
(Linn.)—*Shining-fruited Rush.*

Swampy ground by Howth Station, and probably elsewhere.

7. *J. supinus* (Mœnch.) *J. uliginosus* (Sibth.)—
Bog Rush.

Damp and watery places ; common. Ireland's Eye.

8. *J. compressus* (Jacq.)—*Round-fruited Rush.*

Wet places by the sea ; frequent. The form *J. Gerardi* also occurs.

9. *J. bufonius* (Linn.)—*Toad Rush.*

Damp, sandy, stony, and heathy places ; common. Ireland's Eye.

LUZULA Cand.

1. *Luzula sylvatica* (Bich.)—*Great Wood-Rush.*

Woods and mountains. Abundant in Howth Demesne.

2. *L. pilosa* (Willd.)—*Small Hairy Wood-Rush.*

Sparingly in Howth Demesne. Not a common plant in Ireland.

3. *L. campestris* (Willd.)—*Field Wood-Rush.*

Dry pastures ; common. Ireland's Eye.

4. *L. multiflora* (Lej.) *L. campestris* var. (*Benth.*)

Heaths ; common. Ireland's Eye. The form *congesta* also occurs.

ORDER LXI.—ALISMACEÆ.

ALISMA Linn.

1. *Alisma plantago* (Linn.)—*Great Water-Plantain*.

Watery places. Deep ditches about Greenfields and in a bog-hole by the roadside between Greenfields and Sutton. Leaves sometimes floating.

2. *A. ranunculoides* (Linn.)—*Lesser Water-Plantain*.

Wet places. In a marsh near the summit of Howth.

TRIGLOCHIN Linn.

1. *Triglochin maritimum* (Linn.)—*Sea Arrow-grass*.

Salt marshes; common. Ireland's Eye.

2. *T. palustre* (Linn.)—*Marsh Arrow-grass*.

Wet places; frequent.

ORDER LXII.—TYPHACEÆ.

SPARGANIUM Linn.

1. *Sparganium ramosum* (Huds.)—*Branched Bur Reed*.

In a bog-hole by the shore, between Greenfields and Sutton.

2. *S. simplex* (Huds.)—*Unbranched Bur Reed*.

In a bog near the summit of Howth.

ORDER LXIII.—ARACEÆ.

ARUM Linn.

1. *Arum maculatum* (Linn.)—*Wake-robin*.
Cuckoo-pint.

Howth Church and Demesne, and elsewhere.
Ireland's Eye.

ORDER LXIV.—LEMNACEÆ.

LEMNA Linn.

1. *Lemna minor* (Linn.)

Watery places ; frequent. Ireland's Eye.

ORDER LXV.—POTAMOGETONACEÆ.

POTAMOGETON Linn.

1. *Potamogeton natans* (Linn.)—*Floating Pond-weed*.

Watery places ; frequent.

2. *P. polygonifolius* (Pourr.) *P. natans* var.
(*Benth.*)—*Oblong-leaved Pondweed*.

Wet places ; common.

3. *P. crispus* (Linn.)—*Curled Pond-weed*.

Sparingly in the fish-pond at Howth Castle.

ZOSTERA Linn.1. *Zostera marina* (Linn.)—*Grass-wrack*.

Baldoyle estuary, and in the tidal pond on the south of the Railway at Howth Station.

2. *Z. nana* (Roth.) *Dwarf Grass-wrack*.

“On mud in the creek close to the Railway Station at Baldoyle,” where it was discovered by my friend A. G. More. The only certain locality in Ireland. *Cyb. Hibernica*, 1866.

ORDER LXVI.—CYPERACEÆ.

SCHÆNUS Linn.1. *Schœnus nigricans* (Linn.)—*Black Bog Rush*.

Bogs and moors. Wet banks above the sea between Balscaddan and Kilrock, and between Kilrock and the Lighthouse, sparingly; abundant near the Lighthouse. “Between Baldoyle and Howth;” *Mackay*, 1824. Marshy places, Howth;” *Irish Flora*, 1833.

ELEOCHARIS R. Br.1. *Eleocharis palustris* (R. Br.) *Scirpus palustris* (Linn.)—*Spike Rush*.

Wet places, as at the marsh by the shore near Greenfields.

SCIRPUS Linn.1. *Scirpus maritimus* (Linn.)—*Sea Club Rush*.

Brackish places. In a bog by the shore between Greenfields and Sutton. This is the first species to proclaim the influence of the tide at the estuary of a river in Ireland.

2. **S. Tabernæmontani** (Gm.) *S. glaucus* (Sm.)
S. lacustris var. (Benth.)—*Glaucus Bull Rush.*

Brackish places. A very stunted form occurs by the smaller quarry pond between the railway and the sea on the Quarry. The only Howth locality. "Near Baldoyle;" *Irish Flora*, 1833.

3. **S. cæspitosus** (Linn.) *Eleocharis cæspitosa*
(Link.)—*Scaly-stalked Club Rush.*

Moors and mountains. Common on the upper part of Howth. Ireland's Eye.

4. **S. pauciflorus** (Lightf.) *Eleocharis pauciflora*
(Link.)—*Few-flowered Club Rush.*

In two places in the marsh near the summit of Howth. Not a common species in Ireland, but easily overlooked. "Marshes on the Hill of Howth;" *Mackay*, 1824.

5. **S. fluitans** (Hook.) *Isolepis fluitans* (Hook.)—
Floating Club Rush.

Watery places. In a bog near the summit of Howth, and by Ballysaggart stream. "In the marshy ground at Howth;" *Wade*, 1804.

6. **S. setaceus** (Linn.) *Isolepis setacea* (R. Br.)—
Bristle-leaved Club Rush.

Damp places by Whitewater Brook, sparingly. "Valleys in Howth in marshy places;" *Irish Flora*, 1833.

7. **S. Savii** (S. et M.) *Isolepis Savii* (R. Br.)—
Savi's Club Rush.

With the last, but commoner; by a rivulet between St. Fintan's and Shelmartin. "Hill of Howth;" *Mackay*, 1836.

ERIOPHORUM Linn.

1. *Eriophorum vaginatum* (Linn.)—*Hare's-tail Cotton Sedge*.

Moors and bogs ; common.

2. *E. angustifolium* (Roth.) *E. polystachyum* (Linn.)—*Narrow-leaved or Many-headed Cotton Sedge*.

Moors and bogs ; common.

CAREX Linn.

1. *Carex pulicaris* (Linn.)—*Flea Sedge*.

Frequent on wet ditch banks in the marsh near the summit of Howth. "At Howth, county Dublin;" *Wade*, 1804.

2. *C. disticha* (Huds.)—*Soft Sedge*.

Marshy ground on Ballkill field ; wet ditch banks in Gray's Wood ; near The Hut.

3. *C. arenaria* (Linn.)—*Sand Sedge*.

Sandy sea-coast ; common. Ireland's Eye. "Drifting sand near the sea-shore at Howth, and on Ireland's Eye;" *Wade*, 1804.

4. *C. vulpina* (Linn.)—*Great Sedge*.

Baldoyle Station, Sutton, and Howth Station, chiefly in wet places by the shore ; especially luxuriant by the railway near Baldoyle Station. Ireland's Eye. "In the marshes at Howth;" *Wade*, 1804.

5. *C. stellulata* (Good.)—*Lesser Prickly Sedge*.

On the moorland ; frequent.

6. *C. remota* (Linn.)—*Distant-spiked Sedge*.

Near Howth Castle, on shady ditch banks. “ Sides of marshes at Howth, county Dublin ;” *Wade*, 1804.

7. *C. ovalis* (Good.) *C. leporina* (Wahl.)—*Oval-spiked Sedge*.

Upper parts of Howth south of the village ; Loughgreen Hills ; by Whitewater Brook. “ Marshes and wet pastures at Howth ;” *Wade*, 1804.

8. *C. vulgaris* (Fries.)—*C. cæspitosa* (Linn.)—*Common Sedge*.

Marshy ground near the summit of Howth ; quarry hole near Sutton. Ireland’s Eye. “ Rather common in marshes, at Howth ;” *Wade*, 1804.

9. *C. panicea* (Linn.)—*Pink-leaved Sedge*.

Not unfrequent in wet places, especially on the south side of the Hill. “ Wet meadows at Howth ;” *Wade*, 1804.

10. *C. pilulifera* (Linn.)—*Round-headed Sedge*.

Stony, heathy places at Carrickbrack. “ Moist heaths and pastures ;” *Wade*, 1804.

11. *C. præcox* (Jacq.)—*Spring or Vernal Sedge*.

Common in dry pastures, especially on the south side. Ireland’s Eye. “ Heaths, Howth ;” *Irish Flora*, 1833.

12. *C. glauca* (Scop.)—*Glaucous Heath Sedge*.
Pastures and heaths ; common. Ireland's Eye.
13. *C. flava* (Linn.)—*Yellow Sedge*.
Damp places ; frequent. "At Howth ;" *Wade*, 1804.
14. *C. extensa* (Good.)—*Long-bracted Sea Sedge*.
Brackish places. South of the railway at Howth Station ; by a pond at the west end of the Cosh. Ireland's Eye.
15. *C. hornschuchiana* (Hoppe.) *C. speirostachya* (Sm.) *C. fulva* (Good.) in part.—*Tawny Sedge*.
Sparingly in the marsh near the summit of Howth. "Howth and Portmarnock ;" *Guide*, 1878.
16. *C. distans* (Linn.)—*Loose Sedge*.
Brackish places ; frequent. "Marshes to the S.W. of Howth ;" *Wade*, 1804.
17. *C. binervis* (Sm.)—*Greenribbed Sedge*.
Frequent in the upper parts of the Hill. "Plentiful on Howth ;" *Mackay*, 1824.
18. *C. sylvatica* (Huds.)—*Wood Sedge*.
Howth Demesne.
19. *C. hirta* (Linn.)—*Hairy Sedge*.
Very rare on Howth. A few plants near Earlscliff and at Woodside. "At Howth ;" *Wade*, 1804.
20. *C. ampullacea* (Good.)—*Bottle Sedge*.
Marsh near summit of Howth and in Ballkill field.

ORDER LXVII.—GRAMINEÆ.

ANTHOXANTHUM Linn.

1. *Anthoxanthum odoratum* (Linn.)—*Sweet Vernal Grass.*

Pastures, woods, and heaths ; common. Ireland's Eye.

PHLEUM Linn.

1. *Phleum arenarium* (Linn.)—*Sea Cat's-tail Grass.*

Sandy sea-shores. On the Cosh and the Quarry. Ireland's Eye. A rather rare species in Ireland. "Between Howth and Baldoyle ; S.E. side of Howth, near the Lighthouse ;" *Irish Flora*, 1833.

2. *P. pratense* (Linn.)—*Timothy Grass. Common Cat's-tail Grass.*

Occasional ; borders of woods and fields. Gray's Wood ; Drumleck ; Howth Castle ; "*Var. B. Ph. nodosum.* Along the sandbank going to Howth ;" *Irish Flora*, 1833.

ALOPECURUS Linn.

1. *Alopecurus pratensis* (Linn.)—*Meadow Fox-tail.*

Not unfrequent in damp ground or meadows. Ireland's Eye.

2. *A. geniculatus* (Linn.)—*Floating Fox-tail.*

Boggy ground on Loughoreen Hills ; in a marsh at the Quarry under the Howth Road, at the seaward side.

NARDUS Linn.1. *Nardus stricta* (Linn.)—*Mat-Grass*.

Moors and heaths ; frequent. Ireland's Eye.

PHRAGMITES Trin.1. *Phragmites communis* (Trin.) *Arundo phragmites* (Linn.)—*Common Reed*.

Banks above the sea, about a quarter of a mile north of the Lighthouse ; marshy ground near the summit of Howth.

PSAMMA P. Beauv.1. *Psamma arenaria* (R. et S.) *Ammophila arundinacea* (Linn.)—*Marram or Mat-reed*.

“ On the sandy sea-shore at Howth ;” *Wade*, 1804.
Sandy sea-shores at the Cosh and railway banks in the Quarry. Ireland's Eye.

AGROSTIS Linn.1. *Agrostis canina* (Linn.)—*Brown Bent*.

Moors and bogs ; frequent.

2. *A. vulgaris* (With.)—*Fine-leaved Bent*.

Dry pastures and heaths ; common. Ireland's Eye.

3. *A. alba* (Linn.)—*Marsh Bent*. *Fiorin*.

Meadows and by the sea ; frequent. Ireland's Eye.

HOLCUS Linn.1. *Holcus lanatus* (Linn.)—*Meadow Soft Grass*.

Meadows and pastures ; abundant. Ireland's Eye.

2. *H. mollis* (Linn.)—*Creeping Soft Grass*.

Howth Demesne and Whitewater Brook, near the bridge ; local. Ireland's Eye. "Mountain ground, Howth ;" *Irish Flora*, 1833.

AIRA Linn.1. *Aira cæspitosa* (Linn.)—*Tufted Hair Grass*.

Damp places and in woods ; abundant. Very luxuriant and handsome in the Demesne.

2. *A. flexuosa* (Linn.)—*Wavy Hair Grass*.

Moory ground on the upper parts of Howth ; abundant. Ireland's Eye. "On Howth ;" *Mackay*, 1824.

3. *A. caryophyllea* (Linn.)—*Silvery Hair Grass*.

Dry places on a light soil and on turf ; frequent. Ireland's Eye. "Rocky ground, Howth ;" *Irish Flora*, 1833.

4. *A. præcox* (Linn.)—*Early Hair Grass*.

Dry places ; frequent. *Fl.* in early spring, a little before the last species. Ireland's Eye. "Barren ground, Howth ;" *Irish Flora*, 1833.

TRISETUM Pers.1. *Trisetum flavescens* (Beauv.)—*Yellow Oat Grass*.

Dry banks and pastures ; not rare. Between Drumleck and Carrickbrack ; Sutton and elsewhere. Not a common grass in Ireland.

AVENA Linn.

1. *Avena pubescens* (Linn.)—*Downy Oat Grass*.

Meadows and dry banks. Drumleck ; Woodside, etc. Rather rare on Howth and in Ireland generally.

ARRHENATHERUM Beauv.

1. *Arrhenatherum avenaceum* (Beauv.)—*Tall Oat Grass. False Oat.*

Fields and banks ; common. Ireland's Eye.

TRIODIA R. Br.

1. *Triodia decumbens* (Beauv.)—*Heath Grass*.

Moors, heaths, and dry pastures ; frequent.

KOELERIA Pers.

1. *Koeleria cristata* (Pers.)—*Crested Hair Grass*.

Dry banks above the sea between Kilrock and the Lighthouse and between the Lighthouse and Glена-veena. "Howth ;" *Irish Flora*, 1833.

MOLINIA Mœnch.

1. *Molinia cœrulea* (Mœnch.)—*Purple Melic*.

Moor Grass.

Heaths and wet, turfy places ; common. This is the grass so much spoken of as an ingredient in paper manufacture. "Howth in abundance ;" *Irish Flora*, 1833.

POA Linn.

1. *Poa annua* (Linn.)—*Annual Meadow Grass*.

Common in most places. Ireland's Eye.

2. *P. trivialis* (Linn.)—*Rough Meadow Grass*.

Pastures and waste or bushy places ; common. Ireland's Eye.

3. *P. pratensis* (Linn.)—*Smooth Meadow Grass*.

Common in most places. Ireland's Eye.

GLYCERIA R. Br.

1. *Glyceria fluitans* (R. Br.) *Poa fluitans*
(Scop.)—*Floating Grass*.

Watery places ; frequent. Ireland's Eye.

SCLEROCHLOA Beauv.

1. *Sclerochloa maritima* (Lindl.) *Poa maritima*
(Huds.) *Glyceria* (M. and K.)—*Sea Meadow Grass*.

Brackish places ; common. Ireland's Eye.

2. *S. distans* (Bab.) *Poa distans* (Linn.) *Glyceria*
(Wahl.)—*Reflex Meadow Grass*.

Waste ground and brackish places by the sea. By the shore between Greenfields and Sutton ; sea-shore at the Quarry ; sparingly. "In the sands at Howth ;" *Wade*, 1804.

3. *S. rigida* (Link.) *Poa rigida* (Linn.)—*Hard*
Meadow Grass.

Dry banks and walls about the village of Howth.

4. *S. loliacea* (Woods). *Poa loliacea* (Huds.)—
Dwarf Sea Wheat.

Howth Station and roadside near it ; sandy ground on the Cosh. "At Sandymount and Howth ;" *Mackay*, 1824.

BRIZA Linn.

1. *Briza media* (Linn.)—*Quaking Grass. Fairy Grass.*

Dry banks and fields ; frequent.

CATABROSA Beauv.

1. *Catabrosa aquatica* (Beauv.)—*Water Whorl Grass.*

Watery places. In a marshy place below The Cliffs. Not a common grass in Ireland.

CYNOSURUS Linn.

1. *Cynosurus cristatus* (Linn.)—*Dog's-tail Grass.*
Pastures and banks ; common. Ireland's Eye.

DACTYLIS Linn.

1. *Dactylis glomerata* (Linn.)—*Cock's-foot Grass.*
Banks, shady, and rocky places ; common. Ireland's Eye.

FESTUCA Linn.

1. *Festuca uniglumis* (Sol.)—*Single-glumed Fescue.*

Sandy shore on Ireland's Eye, where it was discovered by my friend A. G. More. A very rare grass in Ireland ; *Cybele Hibernica*, 1866.

2. *F. sciuroides* (Roth.) *F. bromoides* (Linn.)—*Barren Fescue.*

Dry banks, pastures, and walls ; occasional. Walls of Howth Harbour and elsewhere near the village. "Plentiful on Howth ;" *Mackay*, 1824.

3. *F. ovina* (Linn.)—*Sheep's Fescue*.

Pastures and heaths ; common. Ireland's Eye.

4. *F. rubra* (Linn.)—*Creeping Fescue*. *Red Fescue*.

Pastures and banks ; frequent. Ireland's Eye.

5. *F. gigantea* (Vill.)—*Tall Wood Fescue*.

Woods in Howth Demesne, and thickets between the Castle and the village.

6. *F. arundinacea* (Schreb.) *F. elatior* var. (*Benth.*)—*Coarse Fescue*. *Reed Fescue*.

Banks near the sea ; by streams and edges of woods. Railway banks between Howth and Baldoyle ; banks by the sea, a quarter of a mile north of the Bailey Lighthouse ; Gray's Wood ; White-water Brook near the Road bridge.

7. *F. pratensis* (Huds.) *F. elatior* var. (*Benth.*)—*Meadow Fescue*.

Moist, rich soil ; frequent.

BROMUS Linn.1. *Bromus erectus* (Huds.)—*Upright Brome*.

Banks by the roadside near St. Fintan's Churchyard ; Gray's Wood ; a little above the Town of Howth. A very rare grass in Ireland.

2. *B. aspera* (Linn.)—*Hairy Wood Brome*.

Woods and thickets in Howth Demesne.

3. *B. sterilis* (Linn.)—*Barren Brome*.

Banks by the sea between Kilrock and the Lighthouse, and elsewhere.

4. **B. secalinus** (Linn.)—*Rye Brome Grass*.

Waste ground by Warren House and in fields south of Greenfields. A rare grass in Ireland, and probably introduced with the crop. "In sandy meadows between Clontarf and Howth;" *Mackay*, 1824.

5. **B. mollis** (Linn.)—*Soft Brome*.

Banks and pastures; abundant and very variable. Ireland's Eye.

BRACHYPODIUM Beauv.1. **Brachypodium sylvaticum** (R. et S.)—*False Brome*.

Banks, thickets, and hedges; frequent.

TRITICUM Linn.1. **Triticum repens** (Linn.)—*Couch Grass*.
Scutch Grass. Pearl.

Banks, waste places, and cultivated ground; common.

2. **T. junceum** (Linn.) *T. repens* var. (*Benth.*)—*Sea Wheat Grass*.

Sandy shores at the Cosh and Sutton. Ireland's Eye. "Between Baldoyle and Howth; very abundant near the new Lighthouse, Howth;" *Irish Flora*, 1833.

HORDEUM Linn.1. **Hordeum murinum** (Linn.)—*Wall Barley*.

Frequent by the roadsides near houses and villages on Howth. A rare and very local grass in Ireland.

LEPTURUS R. Br.

1. *Lepturus incurvatus* (Trin.)—*Rottbollia* (*Flor. Hib.*) *Sea Hard Grass*.

Salt, marshy ground on the south side of the railway near Howth and Baldoyle Stations. "At Howth, near the sea-shore, Sutton side, but not in any quantity;" *Wade*, 1804.

LOLIUM Linn.

1. *Lolium perenne* (Linn.)—*Rye Grass*.
Pastures, banks, and waysides; abundant. Ireland's Eye.

2. *L. temulentum* (Linn.)—*Darnel*.

Cultivated land on south side of Howth; plentiful. "Wheat fields about Howth and Baldoyle;" *Irish Flora*, 1833.

ACOTYLEDONES OR CRYPTOGAMEÆ.

ORDER LXVIII.—EQUISETACEÆ.

EQUISETUM Linn.

1. *Equisetum arvense* (Linn.)—*Field Horse-tail*.
Damp fields and banks; common.
2. *E. maximum* (Lam.) *E. telmateia* (Ehrh.)
E. fluviatile (*Flor. Hib.*)—*Great Horse-tail*.

Sea banks between Kilrock and Balscaddan; plentiful by Balsaggart stream near The Cliffs; about three hundred yards south-east from Cabeena's.

3. *E. limosum* (Linn.)—*Pipes*.

Watery places ; marsh near the summit of Howth ; wet ground in Gray's Wood.

4. *E. palustre* (Linn.)—*Marsh Horse-tail*.

In several marshy places.

ORDER LXIX.—FILICES.

POLYPODIUM.1. *Polypodium vulgare* (Linn.)—*Polypody*.

Banks and rocky places ; common. Ireland's Eye.

LASTREA Presl.1. *Lastrea filix-mas* (Presl.) *Aspidium filix-mas* (Sw.)—*Male Fern*. *Shield Fern*.

Woods, heaths, and banks ; common. Ireland's Eye.

2. *L. dilatata* (Presl.) *Aspidium dilatatum* (Sw.)—*Broad Fern*.

Common in most uncultivated places. Ireland's Eye.

3. *L. œmula* (Brack.)—*L. feniseeii* (Wats.) *L. recurva* (Newm.)—*Bree's Broad Fern*.

Common in the woods of Howth Demesne.

POLYSTICHUM Roth.

1. *Polystichum angulare* (Newm.) *Aspidium angulare* (Willd.)—*Soft Prickly Shield Fern*.

Howth Demesne in many places in the woods and on banks; sparingly above the sea on the east side of Howth Head.

ATHYRIUM Roth.

1. *Athyrium filix-fœmina* (Roth.)—*Lady Fern*.

Damp places, hedges, heaths, and woods; common.

ASPLENIUM Linn.

1. *Asplenium adiantum-nigrum* (Linn.)—*Black Spleenwort*.

Rocks, walls, and banks. Between Kilrock and the Lighthouse; by the shore on the roadside wall between Kilbarrack and Sutton.

2. *A. trichomanes* (Linn.)—*Black Maiden-hair*.

Roadside wall, looking seaward at the Quarry.

3. *A. marinum* (Linn.)—*Sea Spleenwort*.

Rocky places on the coast. Frequent from Kilrock to the Bailey Lighthouse and at Drumleck. "Growing in tufts out of the crevices of the rocks abundantly at the south side of Howth, near where passengers are landed from the packet in bad weather;" *Wade*, 1804.

4. *A. ruta-muraria* (Linn.)—*Wall rue*.

Old walls; frequent.

SCOLOPENDRIUM Sm.

1. *Scolopendrium vulgare* (Sm.)—*Hart's-tongue*.

Ditch-banks in the Demesne ; about St. Fintan's and elsewhere.

CETERACH Willd.

1. *Ceterach officinarum* (Willd.) *Grammitis ceterach* (Swartz.)—*Scaly Fern*.

Old walls in the Deer Park ; Greenfields and the Quarry. A local fern in many parts of Ireland.

BLECHNUM Linn.

1. *Blechnum boreale* (Sw.)—*B. spicant* (Willd.)—*Hard-fern*.

Rocky and heathy places ; not common. Howth Demesne ; Whitewater Brook.

PTERIS Linn.

1. *Pteris aquilina* (Linn.)—*Bracken*.

Heaths and woods ; common. Ireland's Eye.

OSMUNDA Linn.

1. *Osmunda regalis* (Linn.)—*Royal Fern*.
Flowering Fern.

Boggy ground and wet, rocky places. I was agreeably surprised at discovering an indigenous station for this fern on Howth. There are several plants, and they are inaccessibly situated on the Cliffs, but visible from a certain point. I have shown them to A. G. More, and we have agreed to keep the locality secret. It is the only station I know of for the Royal Fern in the County Dublin, or perhaps in District V. of the *Cybele*.

OPHIOGLOSSUM Linn.

1. *Ophioglossum vulgatum* (Linn.)—*Adder's-tongue*.

Formerly gathered, and I believe exterminated, near Carrickbrack by the late Dr. Robert Smith. In a field east of Gray's Wood ; very sparingly. A rather local fern, but easily overlooked.

BOTRYCHIUM Sw.

1. *Botrychium lunaria* (Sw.)—*Moonwort*.

Gathered by me on the Cosh, 1867. It had been previously found there by Mr. John Bain.

ORDER LXX.—LYCOPODIACEÆ.

1. *Lycopodium selago* (Linn.)—*Club Moss*.

On the moor, a little north of the marsh, near the summit of Howth.

APPENDIX I.

EXCLUDED SPECIES, mentioned by former writers.

Adonis autumnalis (Linn.)—Pheasant's Eye.

Once seen in a potato field near Howth. *Cybele Hibernica*.

Ranunculus parviflorus (Linn.)—Small-flowered Crow-foot.

I exclude this with some hesitation, but many years' search on my part has failed to produce it. The locality given by Mackay in the *Flora Hibernica*, "corn-fields between Baldoyle and Howth," may be outside the boundary. That of D. Orr in the *Cybele Hibernica*, "near the limekiln, a little west of Howth," I cannot verify. "Ditch side near Milltown;" *Wade*, 1804, also needs verification.

Lepidium campestre (sub *Thleaspi*.)

"Apud *Howth*, *Dublin mountains*, inter *Kilgobbin* et *Glencullen*, et alibi;" *Wade*, 1794. Not recently found on Howth. Perhaps *L. Smithii* was intended, which is indeed hardly distinct.

Crambe maritima (Linn.)—Sea-kale.

"South side of Howth, along the gravelly shore;" *Irish Flora*, 1833. Has been extinct for many years.

Trifolium maritimum (Huds.)—Teasel-headed Trefoil.

"Dry, sandy fields and ditch-banks on the coast near Kilbarrack Church, between Dublin and Howth;" *Flora Hibernica*. This was probably either *T. striatum* or *T. scabrum*. The former I have not found in this locality, but it may have grown on banks which preceded the present seawall. *T. scabrum* occurs plentifully at a little distance where the wall terminates. *Wade*, 1794, recorded *T. maritimum* from "a field near Kilbarrack churchyard."

Rosa villosa (Linn.)—Villous Rose.

Has been erroneously stated to grow on Ireland's Eye by Wade, *Plantæ Rariores*, 1804.

Hypericum montanum.

“Apud Howth, super montes Dublinenses, et alibi;”
Wade, 1794. Some mistake.

Helosciadium inundatum (Koch.) *Sium inundatum* (Wigg.)
Flor. Hib.—Least Marsh-wort.

“Abundant in a marsh near the summit of Howth;”
Flora Hibernica. I have not succeeded in finding it, and fear it has become extinct, perhaps through drainage. It is a likely plant to occur.

Sium latifolium (Linn.)—Broad-leaved Water Parsnep.

“Bog of Curragha, county Dublin, affords it in abundance, and it is likewise to be met with at Howth in marshy situations, but sparingly;” Wade, 1804. A mistake for *S. angustifolium* perhaps, which occurs at Curragha, but neither species is now to be found at Howth. Garristown Bog, given by *Irish Flora*, 1833, is also incorrect, and should be referred to the latter plant.

Pastinaca sativa (Linn.)—Wild Parsnep.

“Old and new quarries above Sutton and Howth;”
Cybele Hibernica. An occasionally introduced species which has nowhere established itself. I have not seen it looking wild on Howth for many years.

Marrubium vulgare (Linn.)—White Horehound.

“Old churchyard at Howth;” *Flora Hibernica*. Not there for the last twenty years.

Scutellaria galericulata (Linn.)—Greater Skull-cap.

“Marshes at Howth;” *Brit. Assoc. Guide*, 1878. The record is from Wade, 1804. Not there now. No doubt *S. minor*, which occurs very sparingly, was the plant meant.

Rumex maritimus (Linn.)—Golden Dock.

“In the marshes, within the reach of the sea at Howth;”
Wade, 1804. Long extinct, if it was the right species.

Utricularia vulgaris (Linn.)—Common Bladderwort.

“In marshy ditches at Howth, county Dublin, flowering about August;” Wade, 1804. Long extinct.

Littorella lacustris (Linn.)—Shore-weed.

“Howth;” *Irish Flora*. Not there, and very unlikely to occur.

Corrigiola littoralis (Linn.)—Sand strapwort.

“Sutton side of Howth;” *Wade*, 1804. A mistake.
Perhaps *Polygonum aviculare* was the plant.

Chenopodium ficifolium (Sm.)—Fig-leaved Goose-foot.

“Rubbish heaps at Sutton side of Howth;” *Brit. Assoc. Guide*, 1878. An error for some other species. See Appendix IV., *post*.

C. murale (Linn.)—Sow-bane.

“On the commons at Howth;” *Irish Flora*. “Howth;” *Brit. Assoc. Guide*. Not there of recent years. See Appendix IV., *post*.

C. rubrum (Linn.)—Red Goose-foot.

“In several places from Howth to the mouth of the Liffey;” *Cybele Hibernica*. Not on Howth. See Appendix IV., *post*.

Atriplex arenaria (Woods.)—Frosted Sea Orache.

“At the Martello tower below Sutton; and between Howth and Baldoyle;” *Irish Flora*, 1833. An error. *Atriplex Batingtonii* was probably mistaken for it. This is a very rare species, with a single Irish habitat so far as I know, which is farther north on the east coast in Dublin and Meath.

Euphorbia portlandica (Linn.)—Portland Spurge.

“Along the banks leading to Sutton;” *Irish Flora*, 1833. Not there now. I fear it has also become extinct at Kilbarrack churchyard, where I observed it till about ten years ago. The latter locality is just outside Howth parish.

Epipactis palustris (Linn.)—Marsh Helleborine.

“Near Howth;” *Irish Flora*, 1833. Not there now, but may have once been on the Cosh and exterminated. I have gathered it not far off; sparingly at Portmarnock, and more plentifully at Portrane.

Juncus acutus (Linn.)—Great Sea-Rush.

“To be found at Howth, or along the shore between Clontarf and Howth;” *Wade*, 1804. A mistake of name.

J. squarrosus (Linn.)—Heath Rush.

Same record as last. Not there now.

Alisma natans (Linn.)—Floating Water-plantain.

“On Howth, in ditches, near the large marsh;” *Mackay*, 1824. “Not far from Balruddery, between the Man of War and Balbriggan;” *Wade*, 1804. Both records no doubt erroneous.

Sparganium natans (Linn.)—Floating Bur-reed.

“Marsh on the Hill of Howth near the top;” *Mackay*, 1824. A mistake.

Blysmus rufus (Panz.)—Narrow-leaved Blysmus.

“Between Baldoyle and Howth;” *Mackay*, 1824. This is not true now. The plant may have grown in salt marshes long since obliterated on the Howth side of Baldoyle. It now occurs plentifully between Baldoyle and Portmarnock, not inside the Howth boundary, but in the opposite direction from Baldoyle.

Carex muricata (Linn.)—Prickly Sedge.

“Howth;” *Cybele Hibernica*. Probably some other species. The record is from the *Irish Flora*.

C. pendula.—Pendulous Sedge.

“North-east of the Hill of Howth;” *Wade*, 1804. A mistake of species.

C. pallescens (Lam.)—Pale Sedge.

“Moist meadows at Howth;” *Irish Flora*. A mistake. “Curragha bog;” *Wade*, 1804. Apparently not there now. The sedges were little understood.

Festuca pseudo-myurus (Soy.) *F. myurus* (Linn.) Bentham (in part).—Wall Fescue. Mouse-tail Fescue.

“Howth;” *Brit. Assoc. Guide*. I have not been able to find this rare grass on Howth. Mr. More cannot inform me as to the origin of the record. It is perhaps a mere misprint.

Lycopodium selaginoides (Linn.)—Little Prickly Club-moss.

“At Howth;” *Wade*, 1804. I have repeatedly searched the Cosh sandhills for it unsuccessfully. This is the most likely part of Howth, as the plant grows on the sandhills at Portmarnock and Portrane.

In “A Day at Howth;” Dublin: Hodges, Smith, and Co., will be found mentioned *Fucus acutus*, *Fucus squarrosus*, *Carex pendula*; and in “Rambles on the Irish Coast,” by W. H. Baily; Dublin: Sealy, Bryers, and Walker, will be found *Lycopus europæus*, *Rumex maritimus*, *Carex dioica*, *C. vesicaria*, *C. paniculata*, *C. acuta*, *Viola lutea*, *Gnaphalium sylvaticum*,

and *Habenaria viridis* (as well as others already dealt with), as occurring at Howth. None of these do grow there. The last remarkable list was, I believe, obtained out of D'Alton's "History of Ireland, 1838;" and it is much to be regretted that such long-since discarded errors should be exhumed afresh.

APPENDIX II.

EXCLUDED SPECIES, which, though in the Irish Flora, and occasionally observed on Howth, are only of casual occurrence there, or obviously introduced.

Viola odorata (Linn.)—Sweet Violet.

Established in waste places at St. Brigid's and Greenfields, Sutton, but obviously introduced.

Acer pseudo-Platanus (Linn.)—Sycamore.

Established in hedges and plantations.

Geranium pratense (Linn.)—Meadow Crane's-bill.

A garden escape at St. Brigid's, perhaps established.

Melilotus arvensis (Willd.)—Field Melilot.

Waste ground behind Warren House on the Burrow. Waste ground on the Cosh. I observed this rare species here two or three different years, and also on the railway bank close by. But it was quite accidental, and is not established.

M. vulgaris (Willd.)—White-flowered Melilot.

With the last, but seldomer observed. Both these were first detected on Howth, by my brother, G. V. Hart, on the Cosh, about eight years ago. They are not native in Ireland, and have no more claims to a place in the Irish Flora elsewhere than on Howth.

Inula helenium (Linn.)—Elecampane.

Occurred for years in waste ground near Howth Station, but has since disappeared.

Matricaria parthenium (Linn.)—Feverfew.

Waste places near Howth Station on the south side of the road. Perhaps establishing itself. Not native in Ireland.

M. chamomilla (Linn.)—Wild Chamomile.

Waste ground by the shore on the Quarry. I have not met with this plant elsewhere in the county Dublin. The Raheny locality in the *Cybele Hibernica* is a mistake. In Howth the plant is a very rare casual.

Valerianella auricula (D. C.)—Sharp-fruited Corn Salad.

I have gathered this species twice on the borders of the cultivated field above Ceanchor, when the crop was oats.

Cuscuta europæa (Linn.)—Great Dodder.

On vetches, in a cornfield edge, west of St. Fintan's, in two large patches in 1881. It disappeared, however, without seeding itself.

Stachys betonica (Benth.)—Betony.

Has been introduced at Carrickbrack in wild-looking situations.

N.B.—I should mention here that several species belonging to the Irish Flora have been introduced by me to marshy ground in my brother's place at Woodside, above the village of Howth. Some of these, as *Glyceria aquatica*, *Scirpus sylvatica*, *Carex pentula*, and *Lastræa thelypteri*, appear thoroughly established, and others, as *Ranunculus lingua*, *Campanula hederacea*, *Trollius europæus*, and *Butomus umbellatus*, will perhaps become so, if not destroyed by drainage.

APPENDIX III.

UNDOUBTEDLY INTRODUCED FOREIGN SPECIES, and not established apart from cultivation; sometimes the means of introduction are impossible to ascertain, and the plants assume, for a time, a native appearance.

Delphinium ajacis.—Larkspur.

Warren House. Waste ground. A European species.

Erysimum orientale.—Eastern Treacle Mustard.

Shore between Howth and the Cosh. A weed in Eastern Europe and the East generally, appearing casually in England.

Isatis tinctoria.—Woad.

Kilrock ; waste ground. A European species, perhaps native in England.

Camelina sativa.—Gold of Pleasure.

Waste ground ; Warren House. A European species appearing with crops in England.

C. sylvestris.

With the last. Native in Southern and Middle Europe.

Lepidium virginicum.

With the last. This species was determined for me by the late Mr. H. C. Watson.

Alyssum (Bertoroa) incanum.

With the last. A casual in England from Europe.

Silene ?—Catchfly.

Warren House ; and near it in a place by the old Sutton road. "A *Silene* closely allied to *S. anglica* ;" *Baker*.

Coronilla varia.

Warren House ; waste ground. European.

Carum Carui.—Caraway.

Howth roadside occasionally, and by the railway. A casual spread over Europe.

Melampodium Sp.? (*M. humile* ?)

Warren House ; waste ground. "Achenes rugose, enclosed in adnate phyllaries ;" *Baker*. An American genus.

Pyrethrum tanacetum. *P. balsamita* Alecost, Costmary.

Established on the inside of the roadside ditch, close to Kilbarrack Lodge, and just outside Howth boundary. This strongly smelling highly aromatic weed has held its ground in a wild-looking station for at least fifteen years, when it was first noticed by my brother, G. V. Hart. It was named for me by the late Mr. Bentham. It is indigenous in the Orient, and occurs, but not native, in Southern Europe and France, and its appearance as a denizen on Howth is interesting and unexpected.

Borago officinalis.—Borage.

Occasionally as a garden escape. Native in Middle and South Europe.

Echinosperrnum Lappula.

Warren House ; waste ground. By the shore a little west of Howth Station, on the Quarry. On the Cosh, in waste ground behind houses. An Eastern species, but occurs occasionally in England.

Antirrhinum orontium.—Snapdragon.

Railway banks by houses at the Quarry. Perhaps established.

Achusa sempervirens.

Waste ground behind Evora, Howth. A European species, alien in England.

Gilia capitata.

Waste ground behind Warren House, and behind a house on the Cosh. An American species. A garden escape.

G. pungens.

Waste ground at Warren House.

Phacelia ramosissima.

As under last. These three do not appear to be worth *intentional* introduction.

Amarantus retroflexus.

Warren House ; waste ground. A casual weed from the East, occurring in England as an alien.

Cannabis sativa.—Hemp.

Introduced from birdseed ; by the shore between the Cosh and Howth village.

Plantago arenaria.

Waste ground at Warren House.

Scilla campanulata.—Bell-flowered Bluebell.

Established in Lord Howth's woods near the swan pond, and also perhaps at Greenfields, Sutton. A native of Southern Europe.

Phalaris canariensis.—Canary seed.

Occasionally on dung-heaps and waste places near houses from birdseed, but never perpetuating itself.

N.B.—The above strange assemblage of alien weeds, of which several were grouped together in a neglected enclosure amongst out-houses, and disconnected with garden, flower-beds, or other obvious source of introduction, was very strange, and I could not discover any elucidatory reason. The house was unoccupied, or almost so, during the couple of seasons these visitors were observed. Some may have been introduced from America with Indian corn or Californian oatseed. The place has been since tidied up, and it will be interesting to watch if any of the foreigners effect a settlement. As long ago as 1794, Wade found many interesting weeds at Warren House.

APPENDIX IV.

CO. DUBLIN PLANTS NOT FOUND IN HOWTH.

Note of admiration after name of plant signifies that it has been gathered in county by the writer.

Ranunculus peltatus!

River Liffey. *Cybele Hibernica.*

R. Lenormandi!

Raheny. *Cybele Hibernica.*

R. circinnatus.

Liffey near Chapelizod. *Cybele Hibernica.*

R. auricomus!

About Ballyboden, Finglas, Glasnevin, Feltrim Hill, &c.

R. arvensis?

I have not been able to find this species at the localities quoted from Threlkeld and Mackay in the *Cybele Hibernica*, none of which have, I think, been recently verified. Bel-drummond, Malahide, Balbriggan, and Raheny, in Dublin, are the only supposed Irish localities. *Cyb. Hib. and Guide.*

[*Aquilegia vulgaris.*

Several localities, as Leixlip, Glasnevin, Knockmaroon Hill, Finglas, are given in *Wade*, 1794, and more recently, but the species is certainly introduced in all of them.]

[*Helleborus viridis.*

“Drummartin, near Dundrum;” *Wade*, 1804. No doubt escaped from cultivation.]

Nymphaea alba? }
Nuphar lutea. }

These two water lilies are both marked “Dublin” in the *Guide*, 1883. I have not seen either, except where obviously introduced. *Wade*, 1794, gives “near Glasnevin bridge” for the latter. I am informed by Mr. Coghlan it grows in the Grand Canal at Clondalkin.

[*Meconopsis cambrica*.

The localities quoted as belonging to Dublin in the *Guide* are all in Wicklow.]

* *Chelidonium majus*!

Waste places, occasionally, as at the railway bridge over the Howth road.

Nasturtium palustre!

Rare. Liffey at Island Bridge. Garristown. "Curragha bog, and about Greenog;" *Wade*, 1804.

Arabis hirsuta!

Rare. Walls and banks on the Malahide road at St. Doulough's.

[*Brassica adpressa*!

Portmarnock. A few plants casually.]

[*Alyssum calycinum*!

A casual at Portmarnock; observed formerly by Dr. Mackay, and recently by me for several years.]

A Armoracia amphibia?

"By the side of the pond opposite to the Zoological Gardens, Phoenix Park;" *Mackay*, 1836.

Senebiera didyma?

"Roadsides about Dublin;" *Cyb. Hib.* I have never met with it. Is it anywhere established?

Viola lutea.

Hill of Lyons; *Cyb. Hib.*

Drosera longifolia?

Wade, 1794, records it from Dublin. Not since found, and probably wrong.

* *Reseda suffruticulosa*! (*R. alba*, *Mackay*, Cat., 1824.)

"Sandy ditch-banks at Portmarnock in great abundance; completely naturalized." Still there.

‡ *Silene anglica*!

I have observed this colonist many years at Portmarnock.

Arenaria trinervis.

No locality for Dublin in *Guide*. "Rather rare." I have gathered it near Bray in many places, but usually on the Wicklow side.

Stellaria glauca?

“Kelly’s Glen;” *Guide*. I have not been able to find it.
 “Curragha Bog, Dublin;” *Wade*, 1804. It is now drained.

**[Althæa officinalis.*

“On the road to Cardiff’s bridge, near Cabragh;” *Wade*,
 1804. Not there now, and never native there.]

Hypericum hirsutum!

At the Salmon Leap, Leixlip, and at Woodlands; *Cyb. Hib.*

H. elodes!

Not common. Dublin mountains.

† *Geranium pusillum!*

Lambay.

G. columbinum!

Feltrim Hill. Wade speaks of it as common, 1794.

G. lucidum!

Feltrim Hill; *Cyb. Hib.* “At the Naul;” *Wade*, 1824.

Acer campestre.

“Wild in hedges about Glasnevin, etc. ;” (?) *Cyb. Hib.*

Trifolium medium!

“In elevated meadows, and at the base of the Dublin mountains;” *Wade*, 1794. This species is very scarce in Dublin. I have gathered it by the railway between Killiney and Bray.

T. fragiferum!

Between Baldoyle and Portmarnock.

T. filiforme!

“Killiney Hill;” *Cyb. Hib.* Auburn, St. Anne’s, and elsewhere, in closely mown grass plots.

[Vicia tetrasperma.

Once found on Knockmaroon Hill.]

V. sylvatica!

Banks overhanging the railway near Killiney. “Between Dalkey and the Obelisk;” *Wade*, 1794.

Rubus saxatilis.

“Kelly’s Glen;” *Cybele Hibernica*. “Kilgobbin, etc. ;”
Wade, 1804.

Geum rivale!

By the Liffey. The hybrid between this species and *G. urbanum*, known as *G. intermedium*, occurs at Woodlands.

‡ *Prunus padus!*

Glan-is-moule, Co. Dublin.

Myriophyllum verticillatum.

“Near Finglas bridge, and ditches along the canal;”
Guide.

M. spicatum!

Not common. Deep ditches at Curragha and elsewhere.

Hippuris vulgaris!

Frequent.

[*Ribes grossularia*, *R. rubrum*, *R. nigrum*.]

Occur occasionally as outcasts or escapes; the first especially appears capable of establishing itself.]

[*Sedum reflexum* and *S. rupestre*.]

Occur on some old walls near Dublin, where they are perhaps established, but undoubted aliens.

Saxifraga stellaris!

Dublin mountains, as at the sources of the Dodder.

S. granulata!

Near Kilbarrack churchyard. Race-course, Baldoyle;
Mr. Coghlan.

Epilobium tetragonum.

Roadside west of Carrickmines. *Recent additions, etc.*

[*Sambucus Ebulus*.]

“On the island of Lambay;” *Wade*, 1804. Not there now.]

[*Sium latifolium*.]

Curragha, Howth, and Garristown; see previous Appendix. The first and last of these localities probably belonged always to the next species. Whatever plant grew at Howth is now exterminated, if it was either of these two *Siums*. It is exceedingly unlikely it was *S. latifolium*, which is extremely rare, and requires largely watered localities.]

S. angustifolium!

Curragha and Garristown, 1882.

Ananthe fistulosa!

Pits of Baldoyle and Garristown. A scarce species.

Æe. Lachenalii!

Salt marshes near Portmarnock; Lambay, etc.

Æe. phellandrium.

"Frequent;" *Guide*. Appears to me a scarce species about Dublin, but occurs in the Grand Canal.

Chærophyllum temulum!

Dundrum; roadsides between Garristown and Ashbourne; between Garristown and Duleek; near Kilsallaghan.

[*Myrrhis odorata*.

"In sepibus et pomariis nonnunquam;" *Wade*, 1794. This record no longer holds good. I have not found *myrrhis* in Dublin.]

[*Galium uliginosum*.

"Circa Templeogue et Terrenure;" *Wade*, 1794. Probably an error. See *Cybele*.]

Viburnum opulus!

Not unfrequent.

Dipsacus sylvestris!

Near Raheny; railway bank between Clontarf and Killester; by the shore near Portrane, and fields a little east of Donabate! Other localities in *Cybele Hibernica*. *Wade*, 1794, records Raheny locality.

Bidens cernua. }
B. tripartita! }

These are both very scarce, especially *B. cernua*, which I have not met with about Dublin. Between Knockmaroon and Lucan is given for both species by *Wade*, 1794.

Gnaphalium dioicum!

Dublin mountains in several places.

Carduus pratensis?

"About Marley;" *Irish Flora*. I have not found this species in Dublin.

Crepis paludosa!

Kilmashogue; *Wade*, 1794. Kelly's Glen and elsewhere in Dublin mountains; *Cyb. Hib.*

Hieracium vulgatum.

"Banks of the Liffey above Leixlip;" *Cyb. Hib.*

Wahlenbergia hederacea.

“In Glencullen near the bridge;” *Cyb. Hib.*

Andromeda polifolia!

Between the summit of Kippure and the highest part of the military road between Lough Bray and Killakee, about a mile from the road.

Erica Tetralix!

Dublin mountains.

Vaccinium oxycoccus?

“On the mountains;” *Guide.* The nearest place to Dublin in which I have gathered the cranberry is by the Liffey at Ballysmutton, about two miles on the Wicklow side of the boundary.

Vaccinium vitis-idaea!

On Kippure, inside the Dublin boundary.

Erythraea pulchella!

“North Bull;” *Recent additions, etc.*

* *Cuscuta epilinum?*

“In cultivated flax;” *Guide.* Flax is hardly found in Dublin as a crop now.

*[*C. trifolii.*

Once found at Ballybrack in 1868, but an alien. *Recent additions, etc.*]

[*Mertensia maritima.*

“Near Hampton bank, a short mile from Balbriggan; and at Lough Sheeny;” *Wade, 1804.* Extinct in these places.]

‡ *Cynoglossum montanum.*

“Probably not native in the single locality near Balbriggan.” *Recent additions, etc.; A. G. More.* Omitted in the *Guide*, no doubt by mistake.

Solanum nigrum!

“Old dunghill near Richmond;” *Wade, 1804.* “Waste places and old dunghills near Dublin;” *Mackay, 1824.* Occasionally as a garden weed about Raheny, as at Rosevale, Furry Park, etc.

[*Atropa belladonna.*

“Side of a ditch at the Circus, between Blessington Street and the Penitentiary;” *Irish Flora, 1833.* Not there now.]

Lathræa squamaria !

Woodlands. "Wood of St. Catherine's, county Dublin;"
Wade, 1804.

Orobanche major.

"Between Luttrellstown and Lucan;" "between Dunleary
 and Bullock;" *Wade*, 1804. A mistake for *O. Hederæ*.]

‡ *Linaria repens*.

By the Dodder at Bushy Park near Rathfarnham bridge,
 but probably introduced.

Scrophularia aquatica !

Roadsides about St. Helen's and St. Marnock's near
 Malahide. "Many places in Dublin;" *Cyb. Hib.* "In
 Long Meadows between Cardiff's bridge and Ashtown;"
Wade, 1794.

Veronica montana !

Woodlands.

[*Mentha rotundifolia* !

"Between Ballinascornie Gap and Castle Kelly;" *Cyb.*
Hib. By the Dodder between Milltown and Rathfarnham,
 1867. An escape, and not established?]

[*Teucrium chamædrys*.

Wade, 1794, records this species from Greenhills on the
 way to Tallaght, but it has not been rediscovered.]

Lycopus europæus !

Roadside near Cabinteely; deep ditches on Malahide
 roadside at Auburn near Malahide.

Origanum vulgare !

Knockmaroon, Killester, Templeogue, etc.

† *Calamintha acinos* !

Sandy fields at Portmarnock and Portrane, but uncertain
 and appearing with crops.

C. officinalis !

"Dublin, several localities;" *Cyb. Hib.* Knockmaroon
 Hill.

Nepeta cataria ?

"Banks by the Dodder above Rathfarnham bridge;
 sandy fields about Rush and Skerries;" *Cyb. Hib.* I have
 not been able to rediscover it. The records are quoted
 from *Mackay* and the *Irish Flora*.

Ajuga reptans !

“ At Luttrellstown [Woodlands], Finglas, and elsewhere ;”
Wade, 1794. St. Doulough’s.

L. galeobdolon !

Woodlands, Salmon Leap, and in a few other localities near Dublin. “ Luttrellstown and between Ballibogil-bridge and Ashtown, and near Cardiff bridge ;” *Wade*, 1794. Kelly’s Glen. *Recent additions, etc.*

[*Stachys betonica*.

“ Near Abbotstown, Co. Dublin ;” *Cyb. Hib.* One of Wade’s old records which cannot be accepted without confirmation.]

[*Verbena officinalis* !

“ Local and rare, and probably cast out from gardens ;” *Guide*. Once by the roadside near Knockmaroon. Not occurring anywhere, I think, so as to deserve a place in the Dublin Flora.]

Pinguicula lusitanica !

Dublin mountains.

Utricularia vulgaris !

Quarry holes near Raheny and elsewhere.

[*Lysimachia nummularia*.

“ At the old camp near Loughlinstown ;” *Cyb. Hib.* A record from the *Irish Flora*, and in need of confirmation. The plant is no doubt introduced if it does occur. “ Apud Kilmashogue ;” *Wade*, 1794. Not verified.]

[*Plantago media*.

Recorded by Wade, 1794, as common. Some mistake. Not recently found.]

Chenopodium murale ?

“ Very scarce near Dublin ; Howth, Clontarf, Baldoyle, Portobello ;” *Guide*. Does it now occur in any of these localities ? Mackay wrote formerly, “ Frequent near Dublin.” There has been much confusion of species in this genus, and consequently false records.

‡ *C. Bonus-Henricus* !

In several places ! “ Glasnevin, Carrickmines, Artane, Dalkey ;” *Wade*, 1794.

C. rubrum !

Portrane, near Malahide, 1872 ; near the Pigeon House Fort ; *A. G. More*. “ Rubbish heaps at mouth of Tolka and Liffey ;” *Guide*. A very scarce plant, and hardly to be found now in most of these localities.

[*C. polyspermum*.

“Juxta North Wall;” *Wade*, 1794. Probably a mistake.]

[*C. ficifolium*.

This species is, I believe, erroneously recorded from the Dublin localities, Howth, Clontarf, etc. Probably not Irish at all. *Wade*, 1794, said he found it frequent.]

Atriplex arenaria !

By the coasts of Dublin and Meath from Laytown to Balbriggan. The localities, “Sutton and Baldoyle,” given in the *Guide* are wrong. The above is probably the only correct Irish locality.

Rumex maritimus !

Abundant by the stream through the bog at Garristown, 1882-3. It extends for two or three miles, ceasing before “Coghill’s Bridge.”

‡ *R. pulcher*.

Sparingly near Kingstown and Dalkey in suspicious stations; *Irish Flora*, 1833.

R. hydrolapathum.

Near Malahide, and ditches between Raheny and Baldoyle; *Cyb. Hib.*

[*Polygonum bistorta*.

Formerly found near Monkstown, but not native there, and not seen recently.]

Empetrum nigrum !

Dublin mountains.

Euphorbia portlandica !

Formerly on the ruins of Kilbarrack Abbey; Portrane, opposite Malahide; Killiney.

Mercurialis perennis.

Hedge bank near Finglas; very rare. Found here by *Wade*, 1794, and rediscovered by Mr. More and Rev. H. G. Carroll.

M. annua !

Common about Dublin.

[*Populus alba*, *P. nigra*, and *Carpinus betulus*.

Occur occasionally. Recorded by *Wade*, 1794, but only where planted.]

* *Salix fragilis* !

Planted in many places.

S. capraea !

Frequent.

[*S. reticulata*.Dublin mountains; *Wade*, 1794. Some mistake.][*Hydrocharis morsus-ranae* !

Could not find it at Curragha bog, which is mostly drained away; plentiful near Duleek, a few miles north in Meath, and in Thomastown bog.]

* *Elodea canadensis* !

Common in canals and rivers, and in ponds in Phoenix Park.

[*Orchis ustulata*.

"Inter Sandymount et Merrion;" *Wade*, 1794. Some mistake.]

Habenaria viridis !

"Rather rare;" *Guide*. By the coast south of Balbriggan; Glencree.

Habenaria bifolia !

By the upper reaches of the Dodder, sparingly.

Spiranthes autumnalis.

Bullock, Killiney, Phoenix Park, and Loughlinstown; *Cyb. Hib.* Very rare.

Listera cordata !

Kippure; "Kelly's Glen." *Recent additions, etc.* Kil-mashogue; *Mr. Coghlan*.

[*Ophrys muscifera*.

"Between the Deer Park wall and Finglas river, . . . and between Rathfarnham and Kilgobbin;" *Wade*, 1804. Not found since.]

Epipactis latifolia ?

"Sandhills at Portmarnock and about Glasnevin;" *Cyb. Hib.* I have never found it at Portmarnock, nor anywhere nearer Dublin than Powerscourt and the Dargle. Glasnevin is not a very satisfactory locality.

E. palustris !

Very rare at Portmarnock now; three plants in 1872; amongst sandhills at Portrane.

Malaxis paludosa.

"Kelly's Glen;" *Cyb. Hib.*

Juncus squarrosus!

Dublin mountains ; common.

J. obtusiflorus.

“ Boggy margin of the shore a little east of Dollymount ;”
Guide.

[*J. triglumis.*

“ Marshy spots on the Dublin mountains ;” *Wade, 1804.*
A mistake.]

[*J. biglumis.*

“ Juxta Kilgobbin, sed parcissime ;” *Wade, 1794.* A
mistake.]

[*Typha augustifolia.*

Formerly between Sandymount and Merrion abundantly ;
Wade, 1794.]

Sparganium minimum!

Quarry holes near Raheny.

Lemna trisulca!

Baldoyle and Raheny. “ Curragha ;” *Wade, 1804.*

L. gibba.

“ Pond near Glasnevin ;” *Cyb. Hib.*

Potamogeton heterophyllus!

Liffey.

P. lucens!

“ Apud Phoenix Park ;” *Wade, 1794.* “ River Tolka,
and Grand and Royal Canals ;” *Irish Flora, 1833.*

P. perfoliatus!

Liffey.

P. densus!

Canal at Portobello.

P. pusillus!

Common.

P. pectinatus!

Canals.

Ruppia rostellata!

“ Not unfrequent ;” *Guide.* Portmarnock.

Zannichellia palustris!

Baldoyle Pits.

Rhynchospora alba !

Dublin mountains, not common.

Eleocharis uniglumis !

“Shore east of Dollymount ;” *Cyb. Hib.*

Scirpus lacustris !

Frequent.

Blysmus rufus !

North Bull, and between Portmarnock and Baldoyle.

Carex dioica ?

“Dublin mountains, local ;” *Guide.*

C. divisa !

“North Lots near mouth of Liffey ;” *Cybele Hibernica.* (Gathered here in 1880.) The only Irish locality. “Bog of Curragha ;” *Wade, 1804.* A mistake.

C. muricata.

“Near Stepside on the way to Holly Park, Dublin ;” *Cyb. Hib.* “Curragha ;” *Wade, 1804.* I could not find it there.

C. divulsa !

Woodlands. “Killiney, near Stillorgan, and Feltrim Hill ;” *Guide.*

C. paniculata !

Not common.

C. curta ?

“Curragha Bog ;” *Wade, 1804.* “Foot of Three Rock mountain ;” *Irish Flora, 1833.*

C. stricta.

“By the side of the Royal Canal, etc. ;” *Guide.*

C. strigosa.

Woodlands. “Luttrelstown wood, and at Curragha ;” *Wade, 1804.* Not at Curragha now.

C. pendula !

“Woods by the Liffey near Lucan ;” *Cyb. Hib.* Woodlands, Crumlin ; *Mr. Coghlan.*

C. laevigata.

“Kelly’s Glen ;” *Cybele Hibernica.*

C. pseudo-cyperus ?

“Brackenstown wood, and at Curragha ;” *Wade, 1804.* I have not been able to find this species in Dublin.

C. paludosa!

“Grand Canal in Dublin, plentiful;” *Cyb. Hib.*

C. riparia!

By the roadside between Ashbourne and Swords; roadside near Portrane Coastguard Station and elsewhere near Donabate. Pits of Baldoyle.

C. vesicaria?

“In the bog of Curragha;” *Wade, 1804.* Probably an error. Not there now.

Phalaris arundinacea!

Frequent.

‡ *Avena fatua?*

“Portmarnock;” *Cyb. Hib.*

[*A. strigosa.*

Very rare, and nowhere established. A weed of cultivation.]

Melica uniflora!

Frequent.

Poa nemoralis!

Woodlands; *Cyb. Hib.* (=“Woodlawn” of *Guide?*)

[*P. compressa.*

Recorded from Dublin by *Wade, 1794.* Never confirmed, and probably an error.]

Glyceria aquatica!

Canals, and along the Liffey; ponds by the Howth railway where it crosses the Howth road; Pits of Baldoyle.

Sclerochera Borreri!

North Lots, 1880, where it was first shown to me by *More* with *Carex divisa.* The only Irish locality.

Bromus commutatus?

“Between Raheny and Howth;” *Cyb. Hib.*

‡ *B. racemosus!*

Occasionally.

Triticum caninum!

Woodlands.

Elymus arenarius!

Coast at Skerries. Discovered there by me a few years ago.

Hordeum sylvaticum.

"In a shrubbery at Mount Merrion near Dublin," where it was discovered by Mr. John Bain. The only Irish locality.

H. pratense.

"Fields at Glasnevin and Portmarnock; meadows near Dublin;" *Cyb. Hib.*

Equisetum sylvaticum!

Dodder valley, etc.

E. hyemale!

Woodlands. "Lucan and Leixlip;" *Cyb. Hib.*

E. variegatum!

"Portmarnock and Portrane;" *Cyb. Hib.*

Lastræa thelypteris?

"Near Castle Kelly;" *Cyb. Hib.*

L. oreopteris!

Glan-is-moule. "Kelly's Glen, and near Stepaside;" *Guide.*

Polystichum aculeatum.

"Very local and rare;" *Guide.*

Hymenophyllum Wilsoni.

"Kelly's Glen;" *Guide.* "There still;" *Mr. Coghlan.*

Cystopteris fragilis.

"Dublin mountains, near Tallaght Hill;" *Wade, 1804.*
Not found recently.

Lycopodium clavatum?

"Local in the Dublin mountains;" *Guide.*

L. selaginoides!

Portrane sandhills.

"Curragha Bog" lies east of the little village of Curragha in Meath, about a quarter of a mile to a mile along the Hurley Brook. It is all gone except one bog-hole about thirty feet long by ten wide (in summer), and the stream, and some deep ditches into it. All the land is reclaimed. Garristown Bog is north of Garristown about a mile. It lies on each side of the road stretching east and west for a mile on each side. The stream through it was deepened in 1880, 1881, and the bog is mostly drained away. On the west side of the road some patches of bog remain, with rushy ground. Formerly all this "hollow land" flooded

in wet weather. It is probably by this reclaimed. The *Rumex* has, however, taken up its position along the banks of the stream or ditch, and will not, I should think, be exterminated. It is a curious fact that Dr. Moore could not find it in 1876. This may have been owing to the plant having increased much since the seeds were thrown up with the mud from the bottom of the stream in deepening it, and thus got a good opportunity of germinating.

INDEX.

	PAGE		PAGE
Achillea ...	48	Armeria ...	72
Acotyledones ...	101	Armoracia ...	17
Adder's-tongue ...	104	Arrhenatherum ...	96
Ægopodium ...	40	Arrow-grass ...	86
Æthusa ...	41	Artemisia ...	49
Agraphis ...	84	Arum ...	87
Agrimonia ...	33	Arundo ...	94
Agrimony ...	33	Ash ...	58
Agrostis ...	94	Asperula ...	44
Aira ...	95	Aspidium ...	102
Alchemilla ...	34	Asplenium ...	103
Alder ...	80	Aster ...	47
Alexanders ...	42	Athyrium ...	103
Alisma ...	86	Atriplex ...	74
Alismaceæ ...	86	Avena ...	96
Alliaria ...	16	Avens ...	35
Allium ...	83		
Alnus ...	80	Ballota ...	70
Alopecurus ...	93	Barbarea ...	14
Amaryllidaceæ ...	82	Barley ...	100
Amentiferæ ...	79	Barren Strawberry ...	34
Ammophila ...	94	Bartsia ...	65
Anagallis ...	71	Beaked Parsley ...	42
Anemone ...	11	Bedstraw ...	44
Angelica ...	41	Beet ...	74
Anthemis ...	49	Bellis ...	48
Anthoxanthum ...	93	Bent Grass ...	94
Anthriscus ...	42	Beta ...	74
Anthyllis ...	31	Betula ...	79
Apargia ...	54	Bilberry ...	57
Apium ...	40	Bindweed ...	60
Apocynaceæ ...	58	Birch ...	79
Aquifoliaceæ ...	57	Bird's-foot ...	32
Araceæ ...	87	Bistort ...	76
Arctium ...	52	Bittersweet ...	62
Arenaria ...	22	Blackberry ...	34

	PAGE		PAGE
Black Bindweed	... 77	Carduus	... 53
Blackhead	... 52	Carex	... 90
Black Maiden-hair	... 103	Carlina	... 52
Blackthorn	... 33	Carline Thistle	... 52
Blechnum	... 104	Carrot	... 41
Blue-bell	... 84	Caryophyllaceæ	... 20
Blue-bottle	... 52	Catabrosa	... 98
Blue Fleabane	... 47	Cat's Ear	... 54
Bog Asphodel	... 84	Cat's-tail Grass	... 93
Bogbean	... 59	Caucalis	... 42
Bog Rush	... 88	Celastraceæ	... 28
Boraginaceæ	... 60	Celery	... 40
Botrychium	... 105	Centaurea	... 52
Brachypodium	... 100	Centaury	... 59
Bracken	... 104	Centranthus	... 45
Bramble	... 34	Cerastium	... 23
Brassica	... 16	Ceterach	... 103
Briza	... 98	Chærophyllum	... 42
Broad Fern	... 102	Chamomile	... 49
Brome-grass	... 99	Charlock	... 16
Bromus	... 99	Cheiranthus	... 14
Brooklime	... 66	Chenopodiaceæ	... 73
Brookweed	... 72	Chenopodium	... 73
Broom	... 28	Cherry	... 33
Broom-rape	... 63	Chervil	... 42
Buckbean	... 59	Chickweed	... 22
Bugloss	... 61	Chicory	... 54
Bullace	... 33	Chlora	... 59
Bulrush	... 89	Chrysanthemum	... 49
Bunium	... 40	Chrysosplenium	... 39
Burdock	... 52	Cichorium	... 54
Burnet	... 33	Cinquefoil	... 34
Burnet Saxifrage	... 40	Circæa	... 37
Bur Reed	... 86	Clary	... 68
Butterbur	... 47	Cleavers	... 44
Buttercup	... 12	Clematis	... 11
Butterwort	... 71	Clover	... 29
Cakile	... 18	Club Moss	... 105
Callitrichaceæ	... 77	Club Rush	... 88
Callitriche	... 77	Cnicus	... 53
Calluna	... 57	Cochlearia	... 17
Caltha	... 13	Cock's-foot Grass	... 98
Campanula	... 56	Colt's-foot	... 47
Campanulaceæ	... 56	Comarum	... 34
Campion	... 21	Comfrey	... 61
Caprifoliaceæ	... 43	Compositæ	... 47
Capsella	... 17	Conium	... 42
Cardamine	... 15	Conopodium	... 40
		Convolvulaceæ	... 60

	PAGE		PAGE
Convolvulus ...	60	Draba ...	16
Cornaceæ ...	43	Drosera ...	20
Corn Cockle ...	21	Droseraceæ ...	20
Cornel ...	43	Dyer's Weed ...	18
Corn Marigold ...	49	Echium ...	61
Corn Salad ...	46	Elder ...	43
Cornus ...	43	Eleocharis ...	88
Corylus ...	80	Elm ...	78
Cotton Sedge ...	90	Enchanter's Nightshade... 37	37
Cotyledon ...	39	Endogenæ ...	80
Couch Grass ...	100	Endymion ...	84
Cow Parsley ...	42	Epilobium ...	36
Cow Parsnep ...	41	Equisetaceæ ...	101
Cowslip ...	71	Equisetum ...	101
Cow-wheat ...	65	Erica ...	57
Crab-tree ...	35	Ericaceæ ...	57
Crane's-bill ...	26	Erigeron ...	47
Crassulaceæ ...	38	Eriophorum ...	90
Cratægus ...	35	Erodium ...	26
Crepis ...	56	Ervum ...	31
Crested Hair Grass ...	96	Eryngium ...	40
Crithmum ...	41	Erythræa ...	59
Crowfoot ...	11	Euonymus ...	28
Cruciferæ ...	14	Eupatorium ...	47
Cryptogameæ ...	101	Euphorbia ...	77
Cuckoo-pint ...	87	Euphorbiaceæ ...	77
Cudweed ...	50	Euphrasia ...	65
Cynoglossum ...	60	Exogenæ ...	11
Cynosurus ...	98	Eyebright ...	65
Cyperaceæ ...	88	Fairy Grass ...	98
Cytisus ...	28	Fairy Thimble ...	64
Dactylis ...	98	False Brome ...	100
Daffodil ...	83	False Oat ...	96
Daisy ...	48	Fat Hen ...	74
Dandelion ...	55	Fedia ...	46
Darnel ...	101	Fennel ...	41
Daucus ...	41	Fern, Broad ...	102
Dead-nettle ...	69	Fern, Lady ...	103
Devil's-bit ...	46	Fern, Male ...	102
Dicotyledones ...	11	Fescue Grass ...	98
Digitalis ...	64	Festuca ...	98
Diplotaxis ...	16	Feverfew ...	49
Dipsacaceæ ...	46	Field Madder ...	43
Dipsacus ...	46	Figwort ...	64
Dock ...	75	Filago ...	50
Dog Rose ...	35	Filices ...	102
Dog's-tail Grass ...	98	Fiorin Grass ...	94
Dog-wood ...	43		

	PAGE		PAGE
Flag ...	82	Hair Grass ...	95
Flax ...	27	Haloragaceæ ...	37
Fleabane ...	48	Hard-fern ...	104
Flixweed ...	15	Hard Grass ...	101
Floating Grass ...	97	Hare's-foot Trefoil ...	29
Flowering Fern ...	104	Hart's-tongue ...	104
Fœniculum ...	41	Hawkbit ...	54
Fool's Parsley ...	41	Hawk's-beard ...	56
Forget-me-not ...	62	Hawkweed ...	56
Foxglove ...	64	Hawthorn ...	35
Foxtail Grass ...	93	Hazel ...	80
Fragaria ...	35	Heath ...	57
Fraxinus ...	58	Heath Grass ...	96
Fumaria ...	14	Hedera ...	43
Fumariaceæ ...	14	Hederaceæ ...	43
Fumitory ...	14	Hedge Mustard ...	15
Furze ...	28	Hedge Parsley ...	42
		Helminthia ...	55
Galeopsis ...	69	Helosciadium ...	40
Galium ...	44	Hemlock ...	42
Garlic ...	83	Hemp Agrimony ...	47
Gentian ...	59	Hemp Nettle ...	69
Gentiana ...	59	Henbane ...	63
Gentianaceæ ...	59	Henbit ...	69
Geraniaceæ ...	26	Heracleum ...	41
Geranium ...	26	Herb Robert ...	26
Geum ...	35	Hieracium ...	56
Glaucium ...	14	Holcus ...	94
Glaux ...	72	Holly ...	57
Glyceria ...	97	Honey-suckle ...	43
Gnaphalium ...	50	Honkeneya ...	22
Goat's Beard ...	55	Hop ...	78
Golden Rod ...	48	Hordeum ...	100
Golden Samphire ...	48	Horehound ...	70
Golden Saxifrage ...	39	Horned Poppy ...	14
Goose-foot ...	74	Horse-mint ...	67
Goose-grass ...	44	Horse Radish ...	17
Gorse ...	28	Horse-tail ...	101
Goutweed ...	40	Hound's-tongue ...	60
Gramineæ ...	93	Humulus ...	78
Grammitis ...	103	Hyacinth ...	84
Grass of Parnassus ...	20	Hyacinthus ...	84
Grass-wrack ...	88	Hydrocotyle ...	39
Gromwell ...	61	Hyoscyamus ...	63
Ground Ivy ...	68	Hypericaceæ ...	25
Groundsel ...	51	Hypericum ...	25
Gymnadenia ...	81	Hypochoëris ...	54
Hairbell ...	56	Ilex ...	57

	PAGE		PAGE
Inula ...	48	Loose-strife ...	71
Iridaceæ ...	82	Loose-strife, Purple ...	36
Iris ...	82	Lotus ...	31
Isolepis ...	89	Lousewort ...	65
Ivy ...	43	Lucerne ...	29
Jack by the Hedge ...	16	Luzula ...	85
Jasione ...	56	Lychnis ...	21
Juncaceæ ...	84	Lycium ...	63
Juncus ...	84	Lycopodiaceæ ...	105
Knapweed ...	52	Lycopodium ...	105
Knautia ...	46	Lycopsis ...	61
Knawel ...	38	Lysimachia ...	71
Knot Grass ...	76	Lythraceæ ...	36
Knotted Spurrey ...	22	Lythrum ...	36
Koeleria ...	96	Madder ...	45
Labiatae ...	67	Male Fern ...	102
Lady Fern ...	103	Mallow ...	24
Lady's Finger ...	31	Malva ...	24
Lady's Smock ...	15	Malvaceæ ...	24
Lamium ...	69	Marram ...	94
Lapsana ...	54	Marsh Marigold ...	13
Lastrea ...	102	Marsh Pennywort ...	39
Lathyrus ...	32	Marsh Samphire ...	74
Lavatera ...	24	Mat Grass ...	94
Leguminosæ ...	28	Matricaria ...	49
Lemna ...	87	Meadow Grass... ..	96
Lemnaceæ ...	87	Meadow-Rue ...	94
Lentibulariaceæ ...	71	Meadow-sweet ...	33
Lent Lily ...	83	Medicago ...	29
Leontodon ...	55	Medick ...	29
Lepidium ...	17	Melampyrum ...	65
Lepigonum ...	38	Melic Grass ...	96
Lepturus ...	101	Melilot ...	29
Lesser Celandine ...	12	Melilotus ...	29
Ligustrum ...	58	Mentha ...	67
Liliaceæ ...	83	Menyanthes ...	59
Limbarða ...	48	Mignonette ...	18
Linaceæ ...	27	Milk Thistle ...	53
Linaria ...	64	Milkwort ...	20
Ling ...	57	Millefoil ...	37
Linum ...	27	Mimulus ...	66
Listera ...	81	Mint ...	67
Lithospermum ...	61	Molinia ...	96
Lolium ...	101	Monocotyledones ...	80
London Rocket ...	15	Montia ...	37
Lonicera ...	43	Moonwort ...	105
		Moor Grass ...	96
		Mountain Ash ...	35

	PAGE		PAGE
Mouse-ear ...	23	Pedicularis ...	65
Mugwort ...	50	Pellitory ...	78
Mullein ...	63	Penny Cress ...	17
Mustard ...	16	Pennywort ...	39
Myosotis ...	62	Peplis ...	36
Myriophyllum ...	37	Pepperwort ...	17
Narcissus ...	82	Periwinkle ...	58
Nardus ...	94	Persicaria ...	76
Narthecium ...	84	Petasites ...	47
Nasturtium ...	14	Phleum ...	93
Nepeta ...	68	Phragmites ...	94
Nettle ...	78	Pignut ...	40
Nightshade ...	62	Pimpernel ...	71
Nipplewort ...	54	Pimpinella ...	40
Oak ...	80	Pinguicula ...	71
Oat Grass ...	95	Pipes ...	101
Obione ...	75	Plantaginaceæ ...	73
Oleaceæ ...	58	Plantago ...	73
Onagraceæ ...	36	Plantain ...	73
Onion ...	83	Plumbaginaceæ ...	72
Ononis ...	29	Poa ...	96
Ophioglossum ...	105	Polygala ...	20
Ophrys ...	81	Polygalaceæ ...	20
Orache ...	74	Polygonaceæ ...	75
Orchidaceæ ...	80	Polygonum ...	76
Orchis ...	80	Polypodium ...	102
Ornithopus ...	32	Polypody ...	102
Orobanchaceæ ...	63	Polystichum ...	102
Orobanche ...	63	Pondweed ...	87
Osier ...	79	Poppy ...	13
Osmunda ...	104	Portulacææ ...	37
Oxalidaceæ ...	28	Potamogeton ...	87
Oxalis ...	28	Potamogetonaceæ ...	87
Ox-Eye ...	49	Potentilla ...	34
Oxlip ...	71	Poterium ...	33
Ox-tongue ...	55	Primrose ...	71
Pansy ...	19	Primula ...	71
Papaver ...	13	Primulaceæ ...	71
Papaveraceæ ...	13	Privet ...	58
Parietaria ...	78	Prunella ...	68
Parnassia ...	20	Prunus ...	33
Paronychiaceæ ...	38	Psamma ...	94
Parsley Piert ...	34	Pteris ...	104
Parsnep ...	41	Pulicaria ...	48
Pearl ...	100	Pyrethrum ...	49
Pearlwort ...	21	Pyrus ...	35
		Quaking Grass ...	98
		Quercus ...	80

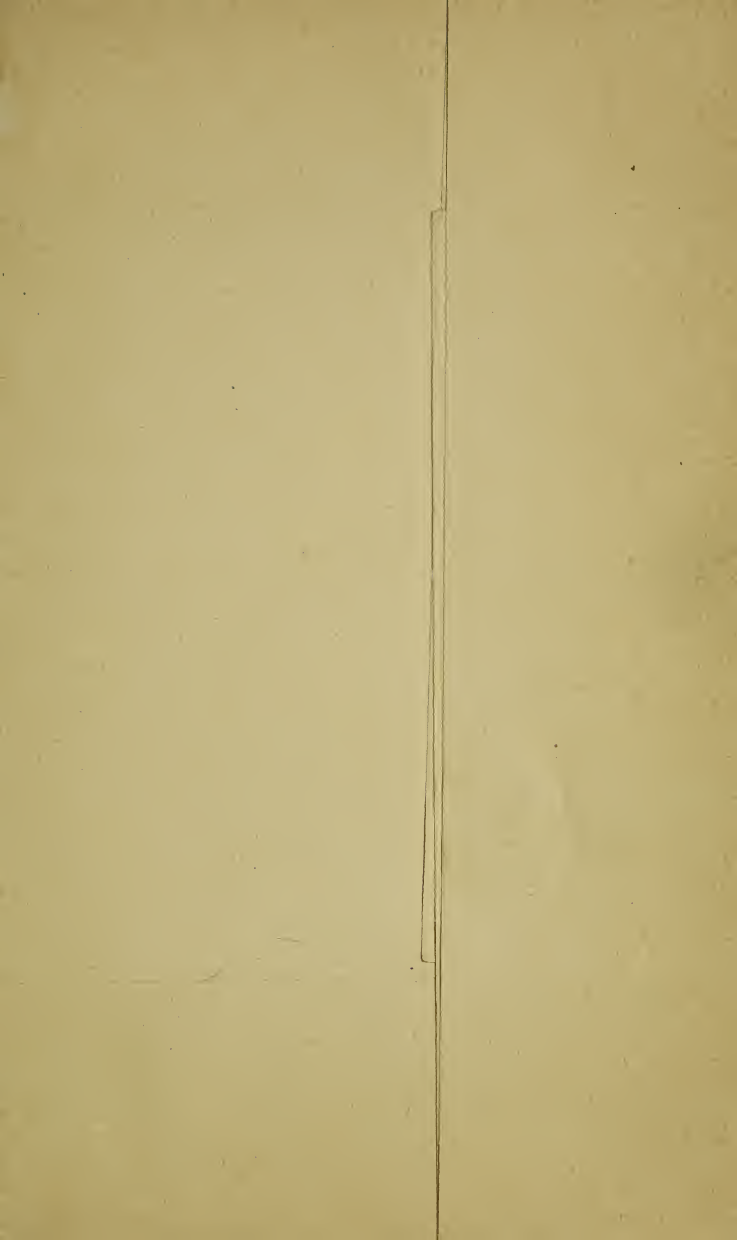
	PAGE		PAGE
Radish ...	18	Saxifragaceæ ...	39
Ragged Robin ...	21	Saxifrage ...	39
Ragweed ...	51	Scabiosa ...	46
Ramsons ...	83	Scabious ...	46
Rape ...	16	Scaly Fern ...	103
Ranunculaceæ ...	11	Scandix ...	42
Ranunculus ...	11	Schœnus ...	88
Raphanus ...	18	Scilla ...	83
Raspberry ...	34	Scirpus ...	88
Red Rattle ...	65	Scleranthus ...	38
Reed ...	94	Sclerochloa ...	97
Reseda ...	18	Scolopendrium ...	104
Resedaceæ ...	18	Scorpion Grass ...	62
Rest-harrow ...	29	Scotch Heather ...	57
Rhinanthus ...	65	Scrophularia ...	64
Ribwort ...	73	Scrophulariaceæ ...	63
Roast-beef Plant ...	82	Scurvy Grass ...	17
Robin Run the Hedge ...	44	Scutellaria ...	68
Rosa ...	35	Scutch Grass ...	100
Rosaceæ ...	33	Sea Blite ...	73
Rose ...	35	Sea Holly ...	40
Rottbollia ...	101	Sea-lavender ...	72
Rowan ...	35	Sea Pink ...	73
Royal Fern ...	104	Sea Purslane ...	22, 75
Rubia ...	45	Sea Rocket ...	18
Rubiaceæ ...	43	Sea Starwort ...	47
Rubus ...	34	Sea Wheat ...	97, 100
Rumex ...	75	Sedge ...	90
Rush ...	84	Sedum ...	38
Rye Grass ...	101	Self-heal ...	68
Sage ...	68	Senebiera ...	18
Sage, Wood ...	70	Senecio ...	51
Sagina ...	21	Shamrock ...	30
Salicornia ...	74	Sheep's Scabious ...	56
Salix ...	79	Shepherd's Needle ...	42
Sallow ...	79	Shepherd's Purse ...	17
Salsola ...	74	Sherardia ...	43
Salvia ...	68	Shield Fern ...	102
Saltwort ...	72, 74	Silene ...	21
Sambucus ...	43	Silver-weed ...	34
Samolus ...	72	Silybum ...	53
Samphire ...	41	Sinapis ...	16
Sandwort ...	22, 38	Sisymbrium ...	15
Sanicle ...	40	Sium ...	40
Sanicula ...	40	Skull-cap ...	68
Saponaria ...	20	Sloe ...	33
Sarothamnus ...	28	Smyrnium ...	42
Saxifraga ...	39	Sneezewort ...	48
		Soapwort ...	20

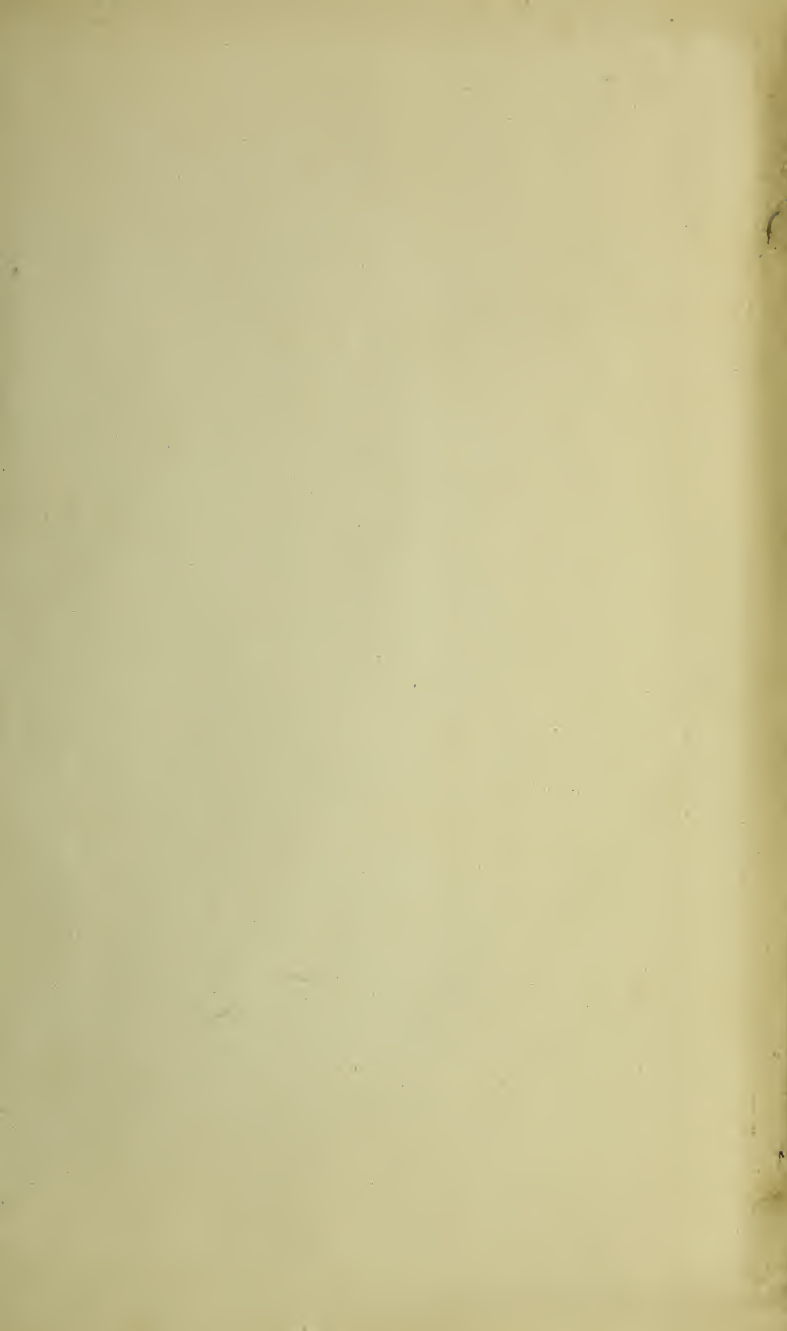
	PAGE		PAGE
Soft Grass	94
Solanaceæ	62
Solanum	62
Solidago	48
Sonchus	55
Sorrel	...	28,	76
Sow-thistle	55
Sparganium	86
Spearwort	12
Speedwell	66
Spergula	38
Spike Rush	88
Spindle Tree	28
Spiræa	33
Spleenwort	103
Spurge	77
Spurrey	38
Squill	83
Stachys	70
Starwort	...	47,	77
Statice	72
Stellaria	22
Stitchwort	22
St. John's-wort	25
Stone-crop	38
Stork's-bill	26
Strawberry	35
Suæda	73
Sundew	20
Swine's Cress	18
Symphytum	61
Tanacetum	50
Tansy	50
Taraxacum	55
Tare	31
Tea-plant	63
Teucrium	70
Thale Cress	15
Thalictrum	11
Thistle	53
Thlaspi	17
Thrift	73
Thrinicia	54
Thyme	68
Thymus	68
Timothy Grass	63
Toadflax	64
Tormentil	34
Tormentilla	34
Torilis	41
Tragopogon	55
Traveller's Joy	11
Tree Mallow	24
Trefoil	29
Trifolium	29
Triglochin	86
Trigonella	30
Triodia	96
Trisetum	95
Triticum	100
Turnip	16
Tussilago	47
Twayblade	81
Typhaceæ	86
Ulex	28
Ulmaceæ	78
Ulmus	78
Umbelliferæ	39
Urtica	78
Urticaceæ	78
Vaccinium	57
Valeriana	45
Valerianaceæ	45
Valerian	45
Valerianella	46
Verbascum	63
Vernal Grass	93
Veronica	66
Vetch	32
Vetchling	32
Vicia	31
Vinca	58
Viola	19
Violaceæ	19
Violet	19
Viper's Bugloss	61
Wake-robin	87
Wallflower	14
Wall Pennywort	39
Wall Pepper	39
Wall Rue	103
Water Blinks	37
Watercress	14
Water Crowfoot	11

	PAGE		PAGE
Water-fennel ...	12	Willow ...	79
Water Milfoil ...	37	Willow-herb ...	36
Water Parsnep ...	40	Winter Cress ...	14
Water Pepper ...	76	Woodbine ...	43
Water Plantain ...	86	Woodruff ...	44
Water Purslane ...	36	Wood-Rush ...	85
Water Starwort ...	77	Wood Sage ...	70
Waybread ...	73	Wood Sorrel ...	28
Weld ...	18	Wormwood ...	49
Wheat Grass ...	100	Woundwort ...	70
Whin ...	28		
White Beam Tree ...	36	Yarrow ...	49
Whiterot ...	39	Yellow Rattle ...	65
Whitethorn ...	35	Yellow-wort ...	59
Whitlow Grass ...	16		
Whorl Grass ...	98	Zostera ...	88

ERRATA.

- Page 20. After *Parnassia palustris*, insert *Grass of Parnassus*.
Page 21. After *S. maritima*, insert *Sea Campion*.
Page 39. For *Golden-leaved Saxifrage*, read *Golden Saxifrage*.
Page 42. After *Cow Parsley*, insert *Chervil*.
Page 63. For *O. minor (subsp.) Hooker*, read *O. minor, subsp. (Hooker)*.
Page 73. After *Armeria maritima*, insert *Thrift. Sea Pink*.
Page 73. After *Plantago coronopus*, insert *Buck's-horn Plantain*.
Page 73. After *P. maritima*, insert *Sea Plantain*.
Page 73. After *P. lanceolata*, insert *Ribwort. Plantain*.
Page 73. After *P. major*, insert *Waybread. Great Plantain*.
Page 77. For *e. Exigua*, read *E. exigua*.
Page 80. Over ORCHIDACEÆ, insert MONOCOTYLEDONES.
Page 85. After *L. campestris*, insert *Heath Wood Rush*.
Page 89. For *Glaucus Bull Rush*, read *Glaucous Bulrush*.





UNIVERSITY OF ILLINOIS-URBANA



3 0112 065066422