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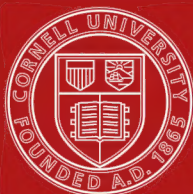
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Contributions towards a *Cybele hibernica*



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TOWARDS A

CYBELE HIBERNICA,

BEING OUTLINES OF THE GEOGRAPHICAL DISTRIBUTION OF
PLANTS IN IRELAND.

BY

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AND

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1866.

“Hanc variæ gentes antiquo more sacrorum
Idæam vocitant matrem, Phrygiasque catervas
Dant comites, quia primum ex ollis finibus edunt
Per terrarum orbes fruges cœpisse creari.”

• *Lucretius de nat Rerum, Lib. ii., 611.*

PREFACE.

IN explanation of the title which we have adopted, as the name of Cybele may not, like that of Flora, be familiar to our readers, it will be well to premise that Cybele was worshipped formerly as the goddess of the Earth in Asia. Her name was first introduced in connexion with modern botany by Mr. H. C. Watson, who considered that it might appropriately express the distribution of plants upon the earth's surface, and who accordingly employed it as the title of his great work, "*Cybele Britannica*."

The present work originated in a desire to furnish not only a revised list of the wild plants of Ireland, but also a classified summary of their localities. Thirty years having now elapsed since the publication of Mackay's "*Flora Hibernica*," within which period many additions have been made to Irish Botany, many plants have become better known, and the range of others has been greatly extended. With the view of meeting the requirements of Geographical Botany, we have endeavoured to arrange our materials somewhat after the plan of Mr. Watson's "*Cybele Britannica*" (whence our title); and thus we hope that the details collected will be found methodized in such order as to be available to those who study the range of plants, while the traveller will also be able to use our book as a botanist's guide through Ireland. With three* excellent and portable "*Floras*" in the hands of British Botanists, it has been thought unnecessary to draw up fresh descriptions of the Irish species; this would have too much increased the bulk of our volume without adding to its usefulness. And, as some additional species may be hereafter found in Ireland, we believe that the use of some book containing descriptions of the entire series of British plants will be found advantageous.

* Hooker and Arnott's *British "Flora."* Babington's "*Manual of British Botany.*" Bentham's "*Handbook of the British Flora.*" Dr. Steele's "*Handbook of Field Botany*" will also be found a convenient pocket companion.

Our scope being thus limited, we have endeavoured to include in a compendious form, as much information respecting the localities and range of Irish plants, as can be given within a short compass. On account of the fewness of the observations hitherto made on the upper and lower limits of the elevation of plants, we have preferred to reserve the complete details of this part of our subject for a future edition. And here we would especially recommend this interesting branch of study to those of our botanists who are in the habit of spending a part of the Summer in a mountainous district. A rough estimate of the upper and lower limits may be made from the Ordnance Survey map, on which the heights are carefully laid down, but it is especially desired that careful observations of both upper and lower limits be taken with the barometer (or sympiesometer) in each of our mountain districts separately, since this is the only way to secure *data* for a just estimate of the influence of climate on the upper and lower limits of plants, as the "zones" and "regions" in Donegal must range to very different heights from those in Kerry or the East of Ireland. We believe that little is gained by the statement that a species descends to sea-level in *one* district, while it ascends to 3,000 feet in *another*; it is only by comparing both upper and lower limits in each different range of hills, or at least in each of the chief groups that any useful results can be expected. The elevation of many species is carefully noted in the MS. catalogue of the Flora of the county of Londonderry, drawn up under the directions of the officers of the former Ordnance Survey of Ireland; and Dr. Dickie's "*Flora of Ulster*" is another source from which we have frequently drawn—we can only regret that more details were not given by so accurate and careful an observer.

For the localities, we have endeavoured to lay the foundations altogether afresh upon recent and reliable authority, having received from numerous correspondents, some twenty tolerably complete county lists. With these we have incorporated most of the stations given in the works of Threlkeld, K'Eogh, Browne, Wade, and in the *Floras* of Lady Kane, Mackay, Power, Dickie and Tate. Reference has also been made to many detached papers, and to private contributions which have been furnished from various quarters.

Feeling convinced that such is the only course by which a reliable work can be produced, we have not hesitated to discard many species considered as Irish, but respecting which we have not succeeded in obtaining authentic information or specimens. By this course, more is left open for the investigation of those observers who may consent to assist in the preparation of a more complete work, which we trust will yet be accomplished as the requirements of science shall demand. It is to the botanists of Ireland that we especially appeal; there is an ample field yet open in the exploration of the *flora* of their native country; and if our book serves but to mark one step in advance it will not have been compiled in vain.

In every case of doubt no pains have been spared to try and arrive at the truth, and we trust that our many correspondents will accept our thankful acknowledgment for the unwearied courtesy with which they have replied to close and troublesome enquiries. To Mr. Isaac Carroll, the well-known botanist of Cork; to Professor George Dickie, of Aberdeen; to the late Right Hon. J. Wynne, of Hazelwood; to the Rev. Samuel Madden; to Mr. T. Chandlee; to Mr. S. A. Stewart, of Belfast; to Miss S. Grubb, of Clonmel; to Mr. F. J. Foot, of the Geological Survey of Ireland; to Mr. John Douglas; to the Rev. T. Warren, of Ennis; to Mr. J. Morrison; to Admiral Jones; to Professor Melville, of Galway; to Mr. David Orr; to Mr. J. Sullivan, of the College, Cork (who jointly with the late Professor E. Murphy, furnished a list of the plants of Cork county); we are especially indebted for localities. From Professor C. C. Babington, of Cambridge, and Mr. H. C. Watson we have received assistance of various kinds. Our valued friends, Mr. W. Carruthers, of the British Museum, and the Rev. W. W. Newbould, have constantly aided us, both in the revision of our proof sheets and by consulting the works of the earlier English botanists, not accessible in Dublin; to Mr. Newbould we are further indebted for a transcript of Dr. Patrick Browne's catalogue. Mr. M. J. O'Kelly, of Rochestown, has very kindly allowed us to consult an interleaved copy of the "*Irish Flora*," which formerly belonged to the late Mr. John White, and contains many notes left by him. We are bound especially to acknowledge our obligations to Dr. E. Perceval Wright and Mr. W. Archer, who have given us the best of their advice and

support, both in planning and in carrying out this first attempt at a *Cybele Hibernica*.

To the British Association for the advancement of Science our thanks are due for a grant of £25 towards the publication of our book; nor are we less grateful to the many friends whose subscriptions have enabled us to bring out our work in a shorter time than could have been otherwise accomplished.

All communications respecting the discovery of new localities for rare species, or the occurrence of any plant in a district not entered in our tables; together with observations on the mountain altitudes of the different species will be most thankfully received and acknowledged by

D. MOORE, or
ALEX. G. MORE, } Glasnevin.

BOOKS RELATING TO THE FLORA OF IRELAND.

(Arranged in the order of publication.)

- Threlkeld, Caleb, M.D.* "Synopsis Stirpium Hibernicarum" Dublin, 1726. This is the earliest work on the botany of Ireland. It is an alphabetical list of native Irish (and British) plants, with notices of their medicinal properties, and many localities. An Appendix is added by Dr. T. Molyneux, the discoverer of the fossil Irish elk.
- K'Eogh, John, M.D.* "Botanica Universalis Hibernica" Cork, 1735. This is another list arranged alphabetically, and chiefly medical; there are a few localities for rare plants, of which we have extracted the most important.
- Smith, Charles, M.D.* Histories of Kerry, Cork, and Waterford. (See next list, and Appendix ii.)
- Rutty, John, M.D.* History of Dublin. (See next list.)
- Browne, Patrick, M.D.* "Fasciculus Plantarum Hiberniæ." A catalogue of plants observed chiefly in the counties of Mayo and Galway (1788), MS., in possession of the Linnæan Society of London. (We are much indebted to the President of the

Linnæan Society for his kind permission to transcribe this interesting tract, of which we have not been able to find a copy in Ireland).

Wade, Walter, M.D. "Catalogus systematicus plantarum indigenarum in comitatu Dublinensi inventarum" (*Wade Dubl.*), Dublin, 1794. A descriptive *Flora* written in latin, and arranged according to the Linnæan system; it contains many localities.

Wade, Walter, M.D. "Plantæ Rariores in Hibernia Inventæ" (*Wade, Rar.*), Dublin, 1804. A tolerably full list of the scarcer plants observed by Dr. Wade in various parts of Ireland, chiefly Connemara, Cork, and Kerry; but several of the species appear to have been imperfectly determined. (See Appendix.)

White, John. "An Essay on the Indigenous Grasses of Ireland" Dublin, 1808. Chiefly descriptive and agricultural, but contains several stations not recorded elsewhere.

Mackay, James Townsend, LL.D. Catalogue of the Plants found in Ireland. Royal Irish Academy Trans., vol. xiv. (1825), and published separately. (*Mackay Cat. Ir.*) Dublin 1824. As the first complete list of all the native plants of Ireland, this is one of the most important memoirs relating to the Flora.

Anonymous. "The Irish Flora" (*Ir. Flor.*), Dublin, 1833. Ascribed to Miss Baily (now Lady Kane); the localities having been contributed by Mr. John White. This is a portable book, containing short and clear descriptions of all the Irish plants then known, and deserves notice as the first *Flora of Ireland*.

Mackay, James Townsend, LL.D. "Flora Hibernica" (*Flor. Hib.*) Dublin, 1836. The standard work on the Flora of Ireland; but the localities given are usually few, and no attempt is made to estimate the range and frequency of the plants.

Power, Thomas, M.D. "The Botanist's Guide for the County of Cork," in "Contributions towards the Fauna and Flora of Cork" (*Flor. Cork*), Cork, 1845. A complete and extensive list of the plants found wild in the county of Cork, chiefly in the immediate vicinity of the town itself. Dr. Power has wisely incorporated the earlier observations of Smith, Drummond, and Alexander; but several species and localities contributed by Mr. Nash and others, appear to have been too hastily admitted.

Our accurate friend, Mr. Isaac Carroll, has aided us in making several corrections and additions to this list.

Tate, Ralph. "Flora Belfastiensis" (*Flor. Belf.*), Belfast, 1863.

A small catalogue of the plants noticed in the immediate neighbourhood of Belfast. Mr. Tate himself, Mr. S. A. Stewart, and Miss Maffett, have enabled us to make several additions, and some corrections.

Dickie, George, M.D. "A Flora of Ulster and Botanists' Guide to the North of Ireland" (*Flor. Ulst.*), Belfast, 1864. This is a most valuable contribution to the knowledge of the geographical distribution of plants in the North of Ireland. Many interesting details are given respecting the elevation of the different species, and the preliminary remarks are of great interest.

A LIST OF THE PRINCIPAL DETACHED PAPERS RELATING TO THE FLORA OF IRELAND.

Mr. Heaton contributed several localities for rare Irish species to How's "*Phytologia Britannica*" (1650); and these were afterwards transcribed by Merrett. *Dr. Sherard* also is quoted as the finder of a few rare Irish species, in Ray's "*Synopsis*," Ed. 3 (1724).

Anderson, T. A short account of the Flora around Clonmel. *Bot. Soc. Edin. Proceedings*, reported in *Botanical Gazette*, vol. iii., p. 39 (1851).

Andrews, William. Observations on the Botany of Great Arran Island. *London Journal of Botany*, vol. iv., p. 569 (1845).

————— Notice of *Elymus europæus* at Mount Merrion, near Dublin. *Natural History Review*, O. S., vol. i., p. 156 (1854).

————— Additions to the Irish Flora. *Nat. Hist. Rev.* O. S., vol. i., p. 230 (1854).

————— Ferns of Killarney. *Nat. Hist. Rev.*, O. S., vol. iii., p. 53 (1856).

————— On the distinct habits of *Hymenophyllum*. *Nat. Hist. Rev.*, O. S., vol. vi., p. 433 (1859).

- Babington, Professor, C. C.* A list of plants observed in Connemara, &c. *Loudon's Mag. of Nat. Hist.*, vol. ix., p. 129 (1836).
-
- On the botany of Erris. *Mag. of Zool. and Bot.*, vol. ii., p. 119 (1838).
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- On *Spiranthes cernua*, (Rich.) *Linnæan Soc. Trans.*, vol. xix., p. 262.
-
- Hints towards a *Cybele Hibernica*. *Nat. Hist. Rev.*, O. S., vol. vi., p. 533 (1859).
- Balfour, Professor J. H.* Botanical trip to Ireland. Reported in "the *Phytologist*," O. S., vol. iv., p. 1005 (1853.)
- Ball, John.* Botanical notes of a tour in Ireland. *Annals of Nat. Hist.*, vol. ii., p. 28 (1839).
- Browne, Patrick, M.D.* "Fasciculus Plantarum Hiberniæ." (See among books).
- Carroll, Isaac.* Notes on new or scarce Irish plants. *Phytologist*, O. S., vol. v., p. 76 (1854).
-
- Notice of scarce Irish plants. *Phytologist*, N. S., vol. ii., p. 76 (1857).
- Carter, Charles.* Botanical ramble in Ireland. *Phytologist*, O. S., vol. ii., p. 512 (1846).
- D'Alton.* "History of the County of Dublin" (1838), contains many localities for the less common plants.
- Drummond, James.* Native plants in County of Cork. *Munster Farmer's Magazine*, vols. vi. and vii. Nos. 21, 23, 25, 26 (1818-20):
- Foot, Frederick J.* On the distribution of plants in Burren, Clare *Royal Irish Academy Trans.*, vol. xxiv. (1862).
-
- On the ferns of West Clare. *Nat. Hist. Review*, O. S., vol. vii., p. 36 (1860).
-
- Botanical Notes in the Midland Counties of Ireland. *Dublin Nat. Hist. Soc. Proceedings* (1864-5).
- Forbes, Professor Edward.* On the connexion between the distribution of the existing Fauna and Flora of the British Isles, and the geological changes which have affected their area. *Geological Survey of Great Britain, Memoirs*, vol. i., p. 336 (1846).
- Graham, Professor Robert.* An account of an excursion to the West of Ireland. *Botanical Soc. of Edin., 3rd Annual Report*, p. 54 (1840).

Hind, Rev. W. M. Three days at Killarney. *Phytologist*, N. S., vol. ii., p. 25 (1857).

————— Dingle and its Flora. *Phytologist*, N. S., vol. ii., p. 79 (1857).

Hind and Millen. (See Millen).

Kinahan, G. H. Ferns of Killaloe, &c. *Nat. Hist. Rev.*, O. S., vol. vii., p. 401 (1860).

————— Ferns of Lough Derg. *Dublin Quarterly Journal of Science*, vol. ii., p. 333 (1861).

Kinahan, Professor J. R. A list of Ferns and their allies found in County of Dublin. *Phytologist*, O. S., vol. v., p. 196 (1854.)

————— On the distribution of Ferns in Ireland. *Nat. Hist. Review*, O. S., vol. v., p. 175 (1858), and Addenda, vol. vii., p. 39 (1860).

————— On *Hymenophyllum*. *Nat. Hist. Review*, O. S., vol. vi., p. 441 (1859).

Lhwyd, Edward. Some further observations relating to the Antiquities and Natural History of Ireland. *Philosophical Transactions*, vol. xxvii., p. 524 (1712).

Mackay, James Townsend, LL.D. A systematic catalogue of rare plants found in Ireland. (*Mackay Rar.*) *Dublin Society Trans.*, vol. v., p. 127 (1806).

————— A catalogue of the plants found in Ireland. (*Mackay Cat. Ir.*) See in the list of books.

————— Additions to the plants of Ireland. *Nat. Hist. Review*, O. S., vol. vi., p. 537 (1859).

————— Additional plants for "Flora Hibernica." *Nat. Hist. Review*, O. S., vol. vii., p. 443 (1860).

————— A brief view of the Botany of Ireland, as an Appendix to *Fraser's Handbook for Travellers in Ireland*, (1854, etc.)

Millen, W. Localities of plants observed near Belfast. *Phytologist*, O. S., vol. iv., p. 363 (1851).

————— and *W. M. Hind.* A list of the more interesting plants found lately near Belfast. *Phytologist*, O. S., vol. v., p. 185 (1854).

Molyneux, Thomas, M.D. Appendix to Threlkeld's "Synopsis Stirpium Hibernicarum" (see Threlkeld).

———— Notices of a few rare Irish plants, in his account of the discovery of the horns of the Irish elk. *Phil. Trans*, No. 227 (1697).

Moore, David, Ph. D. *Equisetum variegatum* and other plants in Ireland. *Phytologist*, O. S., vol. ii., p. 129 (1845).

———— On the distribution of *Erica mediterranea* in Ireland, &c. *Phytologist*, O. S., vol. iv., p. 597 (1852).

———— New Irish *Equisetum*. *Phytologist*, O. S., vol. v., p. 17 (1854).

———— *Ajuga pyramidalis*, &c., in Arran. *Phytologist*, O. S., vol. v., p. 189 (1854).

———— Notes on *Salix procumbens*, &c. *Phytologist*, N. S., vol. ii., p. 212 (1857).

———— Observations on some plants, considered by Alphonse De Candolle alien to Great Britain. *Nat. Hist. Rev.*, O. S., vol. vi., p. 155.

———— Observations on the prevailing and rare plants of Erris. *Nat. Hist. Rev.*, O. S., vol. vii., p. 414.

———— On some plants, supposed to be additions to the Irish Flora. *Dubl. Univ. Zool. and Bot. Assoc. Proceedings*, vol. ii., p. 85 (1863).

———— *Neotinea intacta* (Reich.) A recent addition to the British Flora. *Seemann's Journal of Botany*, vol. ii., p. 228 (1864). Royal Irish Acad. Proceedings, vol. ix., p. 105, (1865).

———— *Patamogeton nitens* (Weber) as an Irish plant. *Seemann's Journal of Botany*, vol. ii., p. 325 (1864).

———— *Inula salicina* in Ireland. *Seemann's Journal of Botany*, vol. iii., p. (1865).

Moore, Thomas. Nature-printed British Ferns, 2 vols., 8vo., contains much information respecting the localities of Ferns in Ireland.

More, Alexander Goodman. Notes on the Flora of Castle Taylor, Galway. *Botanical Soc. Edin. Proceedings* (1855).

———— Localities for some plants observed in Ireland. *Natural Hist. Rev.* O. S., vol. vii., p. 434 (1860).

- More, Alexander Goodman.* Note on the discovery of *Neotinea intacta* (Reich.) *Bot. Soc. Edin. Transactions*, vol. viii., p. 265 (1865).
- Murphy, Prof. E.* Contributions towards a Flora Hibernica. *Loudon's Mag. of Nat. Hist.* vol. i., p. 436 (1829).
- Newman, Edward.* History of British Ferns (3 editions), contains many localities and other information relating to Ireland.
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- Notes on Irish Natural History, especially Ferns, *Charlesworth's. Mag. of Nat. Hist.* vols. iii. and iv. (1839-1840.)
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- New Irish *Equisetum* (*E. Moorei*), *Phytologist* O. S., vol. v., p. 17 (1853).
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- Contributions towards the History of an Irish *Asplenium* (*A. acutum* Bory). *Phytologist*, O. S., vol. v., p. 37 (1853).
- Ogilby, Leslie.* Notes of a Botanical Ramble in Connemara and Arran. *Phytologist*, O. S., vol. ii., p. 345 (1845.)
- O'Mahony, Rev. Thaddeus.* Notes of a Botanical Excursion in Clare. *Dublin Nat. Hist. Soc. Proceedings*, vol. i., p. 30 (1860.)
- Oliver, Professor Daniel.* Notes of a Botanical Ramble in Ireland. *Phytologist*, O. S., vol. iv., p. 676 (1852).
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- Botanical Notes of a week in Ireland. *Phytologist*, O. S., (1853).
- Reichenbach, Prof. H. G.* On *Neotinea intacta* (Reich). *Seemann's. Journal of Botany*, vol. iii., p. 1 (1865).
- Rutty, John, M.D.* An Essay towards a Natural History of the County of Dublin (1772), contains a list of plants chiefly those used as food, or in medicine, and the arts, poisonous species, &c.; only a few special localities are given.
- Smith, Charles.* Ancient and present state of the County of Kerry. Dublin, 1766.
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- Ancient and present state of the County and City of Cork. Dublin, 1770.
-
- Ancient and present state of the County and City of Waterford, (2nd edition.) Dublin, 1774.
- These three books contain lists of the rarer and more interesting plants, with localities (see Appendix).

- Wade, Walter, M.D.* "Catalogus Plantarum rariorum in comitatu Gallovidiæ" (*Wade Gallovid*). *Dubl. Soc. Trans.*, vol. ii., part 2 (1801).
- Walsh (Warburton, Whitelaw, and Walsh).* History of the City of Dublin (1818), Appendix xiii., furnishes a list of the plants of Dublin Bay and vicinity.
- Ward, N. B.* Account of the vegetation of the cliffs of Kilkee. *Bot. Soc. Edin. Transactions*, vol. viii., p. 52 (1864).
- Woods, Joseph.* Some Notes made during a tour through a part of Ireland. *Phytologist, N. S.*, vol. i., p. 121, p. 156, p. 207 (1855).
- Wynne, Right Hon. John.* *Adiantum Capillus-Veneris* in Leitrim. *Nat. Hist. Review, O. S.*, vol. iv., p. 69 (1855).
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- On the effects of a severe frost near Sligo. *Dubl. Nat. Hist. Soc. Proceedings*, vol. i., p. 39 (1860).
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JOURNALS AND PERIODICALS CONSULTED.

- Magazine of Natural History*, edited by Loudon and Charlesworth, London, 1829, &c.
- Magazine of Zoology and Botany*, edited by Sir W. Jardine, P. J. Selby, and Dr. Johnston, 2 vols., 1837-8.
- Annals of Natural History*, London, 1839, &c.
- The London Journal of Botany*, edited by Sir W. J. Hooker.
- The Phytologist*, Old Series, conducted by George Luxford and Edward Newman, 5 vols., London, 1842-1854.
- The Phytologist*, New Series, edited by Alexander Irvine, London, 1855, &c.
- Botanical Gazette*, edited by Henfrey, 3 vols., London, 1849-51.
- Journal of Botany, British and Foreign*, edited by Berthold Seemann, London, 1863-66.
- Natural History Review (Old Series)*, 7 vols., London, 1854-60, contains, under proceedings of the different societies, much information relating to the Natural History of Ireland.
- Dublin Natural History Society's Proceedings* (partly reprinted from *Nat. Hist. Review*), vols. for 1860-1865.

Dublin University Zoological and Botanical Association, Proceedings (reprinted, with additions, from *Nat. Hist. Review*), 2 vols., 1849-1856.

Dublin Quarterly Journal of Science, edited by Professor Samuel Haughton, vols. for 1861-65.

COLLECTIONS OF PLANTS AND HERBARIA
EXAMINED.

1. Herbarium of the late *Dr. J. T. Mackay*, preserved in Trinity College, Dublin. This collection unfortunately was prepared in the latter years of *Dr. Mackay's* life, and many of the plants are known to have been derived from the Botanic Gardens, and were inserted only with the view of representing the species. The localities given on the labels were merely copied from "*Flora Hibernica*," so that the collection is almost useless for elucidating any critical question.
2. Herbarium prepared by *D. M.*, for the Ordnance Survey, and containing a nearly complete series of the wild plants of Derry and Antrim; further elucidated by a MS. catalogue of their localities and elevation in Derry.
3. Herbarium of *D.M.*, containing plants from various parts of Ireland.
4. Herbarium of *A. G. M.*, containing many plants collected in various parts of the West of Ireland.
5. A Collection of plants found near Limerick, made about 1834 by the late *Professor Harvey*, and now in the possession of *Dr. E. Perceval Wright*.
6. Herbarium of *Mr. Thomas Chandlee*, preserved at the Friends' Institute, Dublin, contains a good series of plants from the South of Ireland.
7. A Collection made by *Mr. Charles Moore* when attached to the Ordnance Survey in Donegal.
8. A Collection made by *Mr. John Douglas* near Straffan, Kildare.
9. A Collection made by *Miss K. M. Lindsey*, in Mayo and Connemara.
10. A Collection made by *Miss E. Reynell* in Westmeath.
11. A Collection made by *Miss Maffett* in the North of Ireland.

LISTS RECEIVED FROM DIFFERENT COUNTIES.

- Kerry* (Killarney). Professor C. C. Babington and Rev. W. W. Newbould.
- Cork* (both divisions). Mr. Isaac Carroll, the late Professor E. Murphy, and Mr. J. Sullivan.
- Cork*. (Neighbourhood of Fermoy). Mr. T. Chandlee.
- Waterford*. Miss S. Grubb and Mr. Isaac Carroll.
- Tipperary* (Southern division). Miss S. Grubb.
- Kilkenny*. Rev. Samuel Madden.
- Wicklow*. D. Moore and Mr. D. Orr.
- Dublin*. D. Moore and Mr. D. Orr.
- Kildare*. (Neighbourhood of Ballytore). Mr. Isaac Carroll.
- Kildare* (Neighbourhood of Straffan). Mr. John Douglas.
- Clare* (Burren). A. G. More, Mr. F. J. Foot, and Rev. T. Warren.
- Galway* (Eastern part, chiefly near Castle Taylor). A. G. More.
- Galway* (Western division), Connemara. Prof. C. C. Babington—neighbourhood of Galway, Prof. A. G. Melville.
- Mayo* (Western division), neighbourhood of Foxford. A. G. More; (Erris), Prof. C. C. Babington.
- Mayo* (Eastern division), neighbourhood of Foxford, and of Hollymount. A. G. More.
- Sligo and Leitrim* (near Hazlewood, &c.) The late Right Hon. J Wynne.
- Armagh* (neighbourhood of Loughgall). A. G. More.
- Donegal* (neighbourhood of Killybegs). A. G. More. Many localities in various parts of the county, Admiral Jones, and the late Professor E. Murphy.
- Derry*. D. Moore.
- Antrim*. D. Moore, Mr. S. A. Stewart.
- Down*. Mr. S. A. Stewart.

INTRODUCTION.

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OWING to its insular position, and to the effect of the Gulf Stream, which surrounds nearly the whole coast, the climate of Ireland is, especially in the west, more moist and equable than in the rest of Europe under the same degrees of latitude. As the best authority on the subject of climate, we have gladly availed ourselves of Dr. Lloyd's elaborate essays\* on the meteorology of Ireland, from which the following tables are borrowed.—

TABLE I.—*Mean Temperature of the several places of Observation in Ireland, for the Four Seasons of the Year, and for the Entire Year :—*

| Station               | County               | Spring | Summer | Autumn | Winter | Year |
|-----------------------|----------------------|--------|--------|--------|--------|------|
| Portrush, . . .       | Antrim, . . .        | 46·5   | 56·0   | 51·1   | 41·5   | 48·8 |
| Buncrana, . . .       | Donegal, . . .       | 46·6   | 56·5   | 50·6   | 41·0   | 48·7 |
| Donaghadee, . . .     | Down, . . .          | 47·1   | 56·4   | 51·4   | 42·2   | 49·3 |
| Killybegs, . . .      | Donegal, . . .       | 48·1   | 57·6   | 52·8   | 43·1   | 50·4 |
| Armagh, . . .         | Armagh, . . .        | 46·3   | 56·5   | 49·6   | 40·6   | 48·3 |
| Killough, . . .       | Down, . . .          | 47·4   | 56·6   | 51·9   | 43·5   | 49·8 |
| Markree, . . .        | Sligo, . . .         | 46·1   | 56·2   | 49·6   | 39·4   | 47·8 |
| Westport, . . .       | Mayo, . . .          | 48·7   | 57·7   | 53·8   | 44·9   | 51·3 |
| Dublin, . . .         | Dublin, . . .        | 48·0   | 59·5   | 50·4   | 42·0   | 50·0 |
| Portarlington, . . .  | King's County, . . . | 44·4   | 55·8   | 48·5   | 39·0   | 46·9 |
| Athy, . . .           | Kildare, . . .       | 46·1   | 57·8   | 48·8   | 39·4   | 48·0 |
| Courtown, . . .       | Wexford, . . .       | 48·0   | 58·3   | 50·7   | 42·5   | 49·9 |
| Kilrush, . . .        | Clare, . . .         | 48·2   | 57·9   | 52·5   | 43·4   | 50·5 |
| Dunmore, . . .        | Waterford, . . .     | 48·7   | 59·9   | 52·6   | 43·9   | 51·3 |
| Cahiriveen, . . .     | Kerry, . . .         | 49·8   | 59·3   | 53·8   | 44·7   | 51·9 |
| Castletownsend, . . . | Cork, . . .          | 49·4   | 59·0   | 53·9   | 44·6   | 51·7 |

From the above table it appears that the mean annual temperature

\* "Notes on the Meteorology of Ireland, deduced from Observations made in the Year 1851."—*Royal Irish Academy Transactions*, Vol. xxxii, p. 411. "The Climate of Ireland and the Currents of the Atlantic, &c." By the Rev. Humphrey Lloyd, Dublin, 1865.

of Ireland is a little over 50° Fahrenheit, which is about the same average as in south Britain. But it is not the mean temperature of any country so much as the extreme ranges, which affect in Summer the ripening of fruit and crops, and in Winter the preservation of tender plants. There is a striking difference between Ireland and Great Britain in this respect, for the mean temperature of the Summer months being 2° (Fahrenheit) lower in Ireland, the ripening of corn and fruit is later and more uncertain than in England, and wheat, which is cultivated successfully throughout nearly all England, is in many parts of Ireland a precarious crop, especially in the western counties. The Spanish chestnut, walnut, and fig seldom fully ripen their fruit. On the other hand, the Winter temperature being about 2° higher in Ireland, some plants thrive and flourish with us which would be killed by the cold dry frost of an English Winter. Even in the county of Dublin, some species which are natives of the western coast of Ireland are occasionally unable to bear the Winter when planted out in the open air in the Botanic Garden at Glasnevin; for example, *Simethis bicolor*, and the small form of *Statice occidentalis*, from Arran, *Erica ciliaris*, and *E. Mackayi*, suffer much from frost at Glasnevin.

The temperature of Ireland decreases from south to north at the rate of about three-quarters of a degree for each degree of latitude. A sensible decrease is also experienced from west to east, especially in Winter, when the effects of the Gulf Stream are most felt. It is, indeed, to this vast body of heated water that Ireland owes its milder Winter; and as the prevailing winds blow principally from the south-west, they have also great effect in moderating the climate. In the course of the experiments conducted by Dr. Lloyd and others in 1851, it was found that the temperature of the sea off the west coast of Ireland exceeded that of the air on land—the difference amounting to 1°·8 in Summer, and 5°·7 in Winter.

Besides warming the air, the Gulf Stream renders it more humid, as is proved by the rain-fall being much greater in the west than in the east. Dr. Lloyd has calculated the average amount of saturation at 90 per cent. on the west, and 85 per cent. on the east coast. This vapour-laden air being carried inland by the prevailing south-westerly winds, as soon as it reaches the mountains is

condensed into rain, which, accordingly, falls in greater quantities in the south and west than on the east coast of Ireland, as will be seen from the following table, for which we are again indebted to Dr. Lloyd :—

TABLE II.—*Total Rain-fall in the Year 1851 at the several Meteorological Stations :—*

|                    | Inches |                   | Inches |
|--------------------|--------|-------------------|--------|
| Portarlington, . . | 21·23  | Killybegs, . . .  | 33·20  |
| Killough, . . .    | 23·19  | Dunmore, . . .    | 33·54  |
| Dublin, . . .      | 26·40  | Portrush, . . .   | 37·24  |
| Athy, . . .        | 26·74  | Buncrana, . . .   | 39·28  |
| Donaghadee, . .    | 27·93  | Markree, . . .    | 40·31  |
| Courtown, . . .    | 29·64  | Castletownsend, . | 42·53  |
| Kilrush, . . .     | 32·58  | Westport, . . .   | 45·86  |
| Armagh, . . .      | 33·05  | Cahirciveen, . .  | 59·37  |

The mean rain-fall for all Ireland in 1851 was 34·50 inches. It will be seen that the greatest rain (at Cahirciveen) is nearly treble that of the least (at Portarlington). The latter town, no doubt, owes its greater dryness to its position on the north-east, or leeward, side of the Slieve Bloom mountains ; while Westport, Castletownsend, and Cahirciveen, all lie on the windward side of high mountain ranges, and receive the full discharge from the rain-bearing clouds as they are condensed when they first reach the mountains.

With regard to the physical features of the surface, it is well known that the mountains of Ireland are collected in groups and chains, chiefly in the neighbourhood of the coasts, and that, with the exception of the ranges in which Slieve Bloom and Keeper are the highest, there are no considerable mountains in the middle portion of the island, which has often been described as a great plain bounded on all four sides by mountain barriers. In the north-east there is a mass of basaltic hills covering the greater part of the counties of Derry and Antrim, and part of Armagh. Mica-slate mountains are found in the west, in Mayo and Galway. Granite occurs in Donegal, Down, Dublin, Wicklow, Carlow, and on the north side of Galway bay. The old red sandstone and lower-silurian formations are principally found in Kerry and Tipperary, and on the Slieve Bloom range of hills. Limestone, covered

in many places by extensive bogs, prevails throughout nearly the whole central plain.

The flora of Ireland is chiefly remarkable for the occurrence of a few plants characteristic of the west and south of Europe, which range, under an exceptional climate, to a higher northern latitude than on the continent. Such are—

|                                |                                    |
|--------------------------------|------------------------------------|
| <i>Helianthemum guttatum</i> , | <i>Dabeocia polifolia</i> ,        |
| <i>Saxifraga Geum</i> ,        | <i>Pinguicula grandiflora</i> ,    |
| <i>Saxifraga hirsuta</i> ,     | <i>Trichomanes radicans</i> ,      |
| <i>Saxifraga umbrosa</i> ,     | <i>Adiantum Capillus-Veneris</i> , |
| <i>Erica mediterranea</i> ,    | <i>Simethis bicolor</i> ,          |
| <i>Erica Mackaiana</i> ,       | <i>Euphorbia hyberna</i> ,         |
| <i>Erica ciliaris</i> ,        | <i>Sibthorpia europæa</i> .        |
| <i>Arbutus Unedo</i> ,         |                                    |

A few species seem to point to a former connexion with North America :—

|                              |                                  |
|------------------------------|----------------------------------|
| <i>Neottia gemmipara</i> ,   | <i>Naias flexilis</i> ,          |
| <i>Sisyrinchium anceps</i> , | <i>Eriocaulon septangulare</i> . |

Almost equally characteristic is the group of plants classed by Mr. Watson under his Atlantic Type, of which the following occur in Ireland, being 41 out of 70 :—

|                              |                                   |
|------------------------------|-----------------------------------|
| <i>Meconopsis cambrica</i> , | <i>Sibthorpia europæa</i> ,       |
| <i>Coronopus didyma</i> ,    | <i>Orobanche Hederæ</i> ,         |
| <i>Matthiola sinuata</i> ,   | <i>Pinguicula lusitanica</i> ,    |
| <i>Brassica oleracea</i> ,   | <i>Statice occidentalis</i> ,     |
| <i>Raphanus maritimus</i> ,  | <i>Euphorbia Peplis</i> ,         |
| <i>Viola Curtisii</i> ,      | <i>Euphorbia hyberna</i> ,        |
| <i>Linum angustifolium</i> , | <i>Euphorbia Paralias</i> ,       |
| <i>Lavatera arborea</i> ,    | <i>Euphorbia portlandica</i> ,    |
| <i>Erodium maritimum</i> ,   | <i>Scilla verna</i> ,             |
| <i>Erodium moschatum</i> ,   | <i>Asparagus officinalis</i> ,    |
| <i>Sedum anglicum</i> ,      | <i>Alisma natans</i> ,            |
| <i>Cotyledon Umbilicus</i> , | <i>Rhynchospora fusca</i> ,       |
| <i>Carum verticillatum</i> , | <i>Scirpus Savii</i> ,            |
| <i>Crithmum maritimum</i> ,  | ? <i>Briza minor</i> (if native), |
| <i>Daucus maritimus</i> ,    | <i>Bromus madritensis</i> ,       |
| <i>Rubia peregrina</i> ,     | <i>Lastrea æmula</i> ,            |



|                                 |                                    |
|---------------------------------|------------------------------------|
| <i>Inula crithmoides</i> ,      | <i>Asplenium lanceolatum</i> ,     |
| <i>Wahlenbergia hederacea</i> , | <i>Adiantum Capillus-Veneris</i> , |
| <i>Erica ciliaris</i> ,         | <i>Hymenophyllum tunbrigense</i> , |
| ‡ <i>Verbascum virgatum</i> ,   | <i>Hymenophyllum Wilsoni</i> .     |
| <i>Bartsia viscosa</i> ,        |                                    |

As might be anticipated, the species belonging to Watson's Germanic Type are comparatively few, 18 only, out of 127, having been found wild in Ireland:—

|                                     |                                 |
|-------------------------------------|---------------------------------|
| ‡ <i>Adonis autumnalis</i> ,        | <i>Cynoglossum montanum</i> ,   |
| <i>Turritis glabra</i> ,            | <i>Chenopodium olidum</i> ,     |
| * <i>Melilotus arvensis</i> ,       | <i>Chenopodium urbicum</i> ,    |
| <i>Astragalus Hypoglottis</i> (W.), | <i>Chenopodium ficifolium</i> , |
| <i>Lythrum hyssopifolium</i> ,      | <i>Orchis pyramidalis</i> (W.), |
| <i>Galium erectum</i> ,             | <i>Stratiotes aloides</i> ,     |
| <i>Crepis taraxacifolia</i> ,       | <i>Bromus erectus</i> (W.),     |
| <i>Monotropa Hypopitys</i> (W.),    | <i>Sclerochloa Borreri</i> ,    |
| <i>Teucrium Scordium</i> (W.),      | <i>Hordeum sylvaticum</i> .     |

Of these only five reach the west of Ireland.

The alpine flora is less rich than might be expected. Ireland claims only a little more than a third (40 out of 113) of Watson's Highland Type:—

|                                  |                                  |
|----------------------------------|----------------------------------|
| <i>Thalictrum alpinum</i> ,      | <i>Vaccinum Vitis-idaea</i> ,    |
| <i>Draba incana</i> ,            | <i>Polygonum viviparum</i> ,     |
| <i>Arabis petræa</i> ,           | <i>Oxyria reniformis</i> ,       |
| <i>Silene acaulis</i> ,          | <i>Salix procumbens</i> ,        |
| <i>Dryas octopetala</i>          | <i>Salix herbacea</i> ,          |
| <i>Rubus Chamæmorus</i> ,        | <i>Juniperus nana</i> ,          |
| <i>Alchemilla alpina</i> ,       | <i>Carex rigida</i> ,            |
| <i>Sedum Rhodiola</i> ,          | <i>Sesleria cærulea</i> ,        |
| <i>Saxifraga stellaris</i> ,     | <i>Poa alpina</i> ,              |
| <i>Saxifraga nivalis</i> ,       | <i>Cryptogramme crispa</i> ,     |
| <i>Saxifraga aizoides</i> ,      | <i>Polystichum Lonchitis</i> ,   |
| <i>Saxifraga oppositifolia</i> , | <i>Asplenium viride</i> ,        |
| <i>Galium boreale</i> ,          | <i>Lycopodium alpinum</i> ,      |
| <i>Saussurea alpina</i> ,        | <i>Lycopodium selaginoides</i> , |
| <i>Hieracia</i> ,                | <i>Isoetes lacustris</i> .       |
| <i>Arbutus Uva-ursi</i> ,        |                                  |

Most of these occur in the west and north. The small number of alpine plants found in Dublin and Wicklow is especially worth notice, as contrasted with the rich flora of the mountains of North Wales. Some of the species, as *Draba incana*, *Dryas octopetala*, *Galium boreale*, *Arbutus Uva-ursi*, *Sesleria cœrulea*, *Lycopodium selaginoides*, and *Isoetes lacustris*, occur in many places at or a little above sea-level, so that they cannot strictly be termed high-land species in Ireland. It is probably in consequence of the vaporous atmosphere, and the less amount of sun-light, that these plants are found at a lower level here than in Scotland.

The northern plants, namely, those belonging to Watson's Scottish and Intermediate Types, are more numerous, amounting to 66 out of 117:—

|                                     |                                    |
|-------------------------------------|------------------------------------|
| <i>Thalictrum minus</i> ,           | <i>Gentiana verna</i> (W.),        |
| <i>Thalictrum flexuosum</i> ,       | <i>Melampyrum sylvaticum</i> (N.), |
| <i>Trollius europæus</i> (N.),      | <i>Orobanche rubra</i> ,           |
| <i>Subularia aquatica</i> ,         | <i>Ajuga pyramidalis</i> (W.),     |
| <i>Helianthemum canum</i> (W.),     | <i>Lamium intermedium</i> (N.),    |
| <i>Viola lutea</i> ,                | <i>Galeopsis versicolor</i> ,      |
| <i>Drosera anglica</i> ,            | <i>Mertensia maritima</i> ,        |
| <i>Sagina subulata</i> ,            | <i>Pinguicula vulgaris</i> ,       |
| <i>Alsine verna</i> ,               | <i>Empetrum nigrum</i> ,           |
| <i>Geranium sylvaticum</i> (N.),    | <i>Salix pentandra</i> ,           |
| <i>Vicia Orobus</i> ,               | <i>Salix nigricans</i> (N.),       |
| <i>Prunus Padus</i> ,               | <i>Salix phylicifolia</i> (N.),    |
| <i>Potentilla fruticosa</i> (W.),   | <i>Salix ambigua</i> (N.),         |
| <i>Rubus saxatilis</i> ,            | <i>Salix laurina</i> (N.),         |
| <i>Rubus suberectus</i> ,           | ? <i>Pinus sylvestris</i> ,        |
| <i>Sanguisorba officinalis</i> ,    | <i>Listera cordata</i> ,           |
| <i>Circeæ alpina</i> ,              | <i>Habenaria albida</i> ,          |
| <i>Callitriche autumnalis</i> ,     | <i>Allium Scorodoprasum</i> (S.),  |
| <i>Saxifraga Hirculus</i> ,         | <i>Potamogeton prœlongus</i> ,     |
| <i>Saxifraga hypnoides</i> ,        | <i>Eriocaulon septangulare</i> ,   |
| <i>Parnassia palustris</i> ,        | <i>Blismus rufus</i> ,             |
| <i>Ligusticum scoticum</i> (N.),    | <i>Eleocharis uniglumis</i> ,      |
| ? <i>Myrrhis odorata</i> (if wild), | <i>Carex dioica</i> ,              |
| <i>Galium sylvestre</i> ,           | <i>Carex limosa</i> ,              |

|                                |                                 |
|--------------------------------|---------------------------------|
| <i>Crepis paludosa</i> ,       | <i>Carex filiformis</i> ,       |
| <i>Hieracium cœsium</i> ,      | <i>Festuca sylvatica</i> ,      |
| <i>Antennaria dioica</i> ,     | <i>Elymus arenarius</i> ,       |
| ? <i>Campanula latifolia</i> , | <i>Polypodium Phegopteris</i> , |
| <i>Lobelia Dortmanna</i> ,     | <i>Polypodium Dryopteris</i> ,  |
| <i>Andromeda polifolia</i> ,   | <i>Equisetum umbrosum</i> (N.), |
| <i>Pyrola media</i> ,          | <i>Equisetum hyemale</i> ,      |
| <i>Pyrola minor</i> ,          | <i>Equisetum trachyodon</i> ,   |
| <i>Pyrola secunda</i> ,        | <i>Equisetum variegatum</i> .   |

On comparing the flora of Ireland with that of Great Britain, we find that out of the 1,425 species given by Mr. Watson as the total number of the British flora, we can claim for Ireland only about 950, to which are to be added the few plants which occur in Ireland without reaching Great Britain; these are as follows:—

|                                                        |                                         |
|--------------------------------------------------------|-----------------------------------------|
| <i>Helianthemum guttatum</i> (S.W.),                   | <i>Arbutus Unedo</i> (S.W.),            |
| <i>Arenaria ciliata</i> (S.W.),                        | <i>Dabeocia polifolia</i> (W.),         |
| <i>Saxifraga Geum</i> (S.W.),                          | <i>Pinguicula grandiflora</i> (S.W.),   |
| <i>Saxifraga hirsuta</i> (S.W.),                       | <i>Neottia gemmipara</i> (S.W.),        |
| <i>Saxifraga umbrosa</i> (W.),                         | <i>Neotinea intacta</i> (W.),           |
| ? <i>Saxifraga Andrewsii</i> (S.W.),                   | <i>Sisyrinchium anceps</i> (W.),        |
| ? <i>Saxifraga hirta</i> (S.),                         | <i>Potamogeton longifolius</i> (W.),    |
| ? <i>Saxifraga affinis</i> (S.W.),                     | <i>Potamogeton sparganiifolius</i> (W.) |
| <i>Inula salicina</i> (W.),                            | <i>Naias flexilis</i> (W.),             |
| <i>Erica mediterranea</i> (W.),                        | <i>Carex Buxbaumii</i> (N.E.),          |
| ? <i>Erica Mackaiana</i> (if not in<br>Cornwall) (W.), | <i>Asplenium acutum</i> (Bory.)         |

With the addition of *Hieracia* and *Rubi*, the whole flora may be computed at about 1,000 species, thus amounting to little more than two-thirds of the plants found in Great Britain.

The deficiencies of the Irish flora will be best seen by a comparison with Mr. Watson's list (*Cybele Britannica*, iv., p. 234), in which the British plants are arranged in order of frequency, commencing with the commonest species.

Of the first 300 Ireland possesses all.

In the fourth hundred two are wanting, namely:—

|                           |                          |
|---------------------------|--------------------------|
| <i>Galium cruciatum</i> , | <i>Genista anglica</i> . |
|---------------------------|--------------------------|

Between 400 and 500, three are wanting, viz. :—

|                       |                 |
|-----------------------|-----------------|
| Helianthemum vulgare, | Ononis spinosa. |
| Ranunculus hirsutus,  |                 |

Between 500 and 600 seven are wanting, viz. :—

|                          |                      |
|--------------------------|----------------------|
| Astragalus Glycyphyllus, | ?Paris quadrifolia   |
| Plantago media,          | Scabiosa columbaria, |
| Avena pratensis?         | Lathyrus sylvestris. |
| Valeriana dioica,        |                      |

Between 600 and 700 sixteen are wanting, viz. :—

|                       |                             |
|-----------------------|-----------------------------|
| Tamus communis,       | Picris hieracioides,        |
| Serratula tinctoria,  | Onopordum Acanthium,        |
| Teesdalia nudicaulis, | Blysnus compressus,         |
| Convallaria majalis,  | Alopecurus agrestis,        |
| Sinapis tenuifolia,   | Malachium aquaticum,        |
| Inula Conyza,         | Narcissus Pseudo-Narcissus. |
| Sison Amomum,         | Campanula glomerata,        |
| Daphne Laureola,      | Torilis infesta.            |

Between 700 and 800 twenty-six are wanting :—

|                           |                        |
|---------------------------|------------------------|
| Ribes rubrum,             | Viscum album,          |
| Dianthus deltoides,       | Orchis ustulata,       |
| Hippocrepis comosa,       | Dianthus Armeria,      |
| Bryonia dioica,           | ?Medicago maculata,    |
| Potentilla argentea,      | Myosotis sylvatica,    |
| Mœnchia erecta,           | Erythræa littoralis,   |
| Berberis vulgaris,        | Populus alba,          |
| Pyrus torminalis,         | Clematis Vitalba,      |
| Carduus eriophorus,       | Carduus heterophyllus, |
| Fagus sylvatica,          | Myosurus minimus,      |
| Statice Limonium,         | Viburnum Lantana,      |
| Specularia hybrida,       | Linaria spuria,        |
| ?Chenopodium polyspermum, | Stellaria nemorum.     |

Between 800 and 900 thirty-seven are wanting.

Between 900 and 1,000 thirty-four are wanting.

Between 1,000 and 1,100 fifty-seven are wanting.

Between 1,100 and 1,200 seventy-four are wanting.

Between 1,200 and 1,300 eighty-four are wanting.

Between 1,300 and 1,400 ninety-two are wanting.

Between 1,400 and 1,425 forty-four are wanting.

The twenty-four scarcest British plants occurring in Ireland are the following :—

|                            |                          |
|----------------------------|--------------------------|
| Crepis taraxacifolia,      | Potentilla fruticosa,    |
| Adiantum Capillus-Veneris, | Viola lactea,            |
| Sclerochloa Borreri,       | ‡Verbascum virgatum,     |
| Salix laurina,             | Erica ciliaris,          |
| Hieracium cœsium,          | Carex punctata,          |
| Viola Curtisii,            | Carex paradoxa,          |
| Rhynchospora fusca,        | Equisetum trachyodon,    |
| Salix procumbens,          | Eriocaulon septangulare, |
| Viola stagnina,            | Arundo stricta,          |
| Diotis maritima,           | Arabis ciliata,          |
| Elatine Hydropiper,        | Euphorbia hyberna,       |
| Gentiana verna,            | Simethis bicolor.        |

For our districts we have adopted the divisions proposed by Professor C. C. Babington, in a paper read before the Dublin University Zoological and Botanical Association in 1859.

The following are the particulars of the twelve districts as shown in the accompanying map, to which we have added the elevations of the highest mountains, and the more remarkable plants in each.

DISTRICT L.—*Kerry and South Cork.\**

MOUNTAINS.

*Kerry*.—Mangerton, 2754 feet; Carn Tual, 3404; Brandon, 3126; Binshehy, 2710; Bantregaun, 2784. *Cork*.—Hungry Hill, 2249.

PLANTS.

|                           |                          |
|---------------------------|--------------------------|
| Draba incana,             | <i>Saussurea alpina,</i> |
| ?Cerastium trigynum,      | Hieracia,                |
| Alchemilla alpina,        | Oxyria reniformis,       |
| Dryas octopetala,         | Salix herbacea,          |
| Sedum Rhodiola,           | Carex rigida,            |
| <i>Saxifraga umbrosa,</i> | Poa alpina,              |
| <i>Saxifraga Geum,</i>    | Polystichum Lonchitis,   |

\* Cork is separated into South and North by the course of the rivers Sullane and Lee.

|                                 |                                    |
|---------------------------------|------------------------------------|
| <i>Saxifraga hirsuta</i> ,      | <i>Asplenium viride</i> ,          |
| <i>Saxifraga stellaris</i> ,    | <i>Lycopodium alpinum</i> ,        |
| <i>Saxifraga aizoides</i> ,     | <i>Lycopodium selaginoides</i> ,   |
| <i>Saxifraga hirta</i> ,        | <i>Isoetes lacustris</i> ,         |
| <i>Saxifraga affinis</i> ,      | <i>Isoetes echinospora</i> .       |
| <br>                            |                                    |
| <i>Matthiola sinuata</i> ,      | ? <i>Scrophularia Scorodonia</i> , |
| <i>Arabis ciliata</i> ,         | <i>Eufragia viscosa</i> ,          |
| <i>Lepidium latifolium</i> ,    | <i>Sibthorpia europæa</i> ,        |
| <i>Subularia aquatica</i> ,     | <i>Pinguicula grandiflora</i> ,    |
| <i>Crambe maritima</i> ,        | <i>Euphorbia hyberna</i> ,         |
| <i>Helianthemum guttatum</i> ,  | <i>Euphorbia amygdaloides</i> ,    |
| <i>Viola Curtisii</i> ,         | ? <i>Paris quadrifolia</i> ,       |
| <i>Elatine hexandra</i> ,       | <i>Spiranthes gemmipara</i> ,      |
| <i>Lathyrus maritimus</i> ,     | <i>Cephalanthera ensifolia</i> ,   |
| <i>Agrimonia odorata</i> ,      | <i>Allium Scorodoprasum</i> ,      |
| <i>Carum verticillatum</i> ,    | <i>Simethis bicolor</i> ,          |
| <i>Senecio saracenicus</i> ,    | <i>Eriocaulon septangulare</i> ,   |
| <i>Diotis maritima</i> ,        | <i>Juncus obtusiflorus</i> ,       |
| <i>Wahlenbergia hederacea</i> , | <i>Potamogeton nitens</i> ,        |
| <i>Arbutus Unedo</i> ,          | <i>Rhynchospora fusca</i> ,        |
| ? <i>Erythræa pulchella</i> ,   | <i>Carex punctata</i> ,            |
| <i>Cicendia filiformis</i> ,    | <i>Asplenium lanceolatum</i> ,     |
| ? <i>Mertensia maritima</i> ,   | <i>Asplenium acutum</i> ,          |
| <i>Verbascum virgatum</i> ,     | <i>Adiantum Capillus-Veneris</i> , |
| <i>Linaria Elatine</i> ,        | <i>Trichomanes radicans</i> ,      |
| <i>Linaria repens</i> ,         | <i>Equisetum Wilsoni</i> .         |

DISTRICT II.—*North Cork ; Waterford ; South Tipperary.\**

MOUNTAINS.

*Cork*.—Cahirbarna, 2234 feet. *Waterford*.—Commeragh and Monavullagh mountains, 2469 feet. *Tipperary*.—Knockmeiledown 2598 ; Galtymore, 3008 ; Slieve Namon, 2362.

PLANTS.

|                            |                               |
|----------------------------|-------------------------------|
| <i>Sedum Rhodiola</i> ,    | <i>Hieracia</i>               |
| <i>Saxifraga umbrosa</i> , | <i>Vaccinium Vitis-ideæ</i> , |

\* Tipperary is divided into North and South by the Great Southern and Western Railway.

|                                 |                                 |
|---------------------------------|---------------------------------|
| Saxifraga Geum,                 | Oxyria reniformis,              |
| Saxifraga hirsuta,              | Salix herbacea,                 |
| Galium boreale,                 | Carex rigida.                   |
| Ranunculus parviflorus,         | ? <i>Erica vagans</i> ,         |
| <i>Nasturtium sylvestre</i> ,   | Verbascum Blattaria,            |
| <i>Barbarea præcox</i> ,        | Antirrhinum Orontium,           |
| Sinapis nigra,                  | Linaria Elatine,                |
| <i>Lepidium latifolium</i> ,    | Linaria minor,                  |
| Senebiera didyma,               | <i>Eufragia viscosa</i> ,       |
| <i>Geranium rotundifolium</i> , | Mentha rotundifolia,            |
| Althæa officinalis,             | <i>Pinguicula grandiflora</i> , |
| Linum angustifolium,            | <i>Euphorbia Peplis</i> ,       |
| Rosa micrantha,                 | <i>Euphorbia hyberna</i> ,      |
| <i>Rosa systyla</i> ,           | <i>Asparagus officinalis</i> ,  |
| Sedum dasyphyllum,              | <i>Allium Scorodoprasum</i> ,   |
| Sedum album var. micranthum,    | <i>Juncus acutus</i> ,          |
| Rubia peregrina,                | <i>Bromus madritensis</i> ,     |
| <i>Diotis maritima</i> ,        | <i>Bromus erectus</i> ,         |
| Senecio squalidus,              | <i>Asplenium acutum</i> ,       |
| Arctium majus,                  | <i>Trichomanes radicans</i> .   |
| Helminthia echioides,           |                                 |

DISTRICT III.—*Kilkenny; Carlow; Queen's-county.*

## MOUNTAINS.

*Carlow*.—Mount Leinster, 2604 feet; Black-stairs, 2411.

*Queen's-county*.—Slieve Bloom, 1690.

## PLANTS.

|                               |                                |
|-------------------------------|--------------------------------|
| Viola odorata,                | ? <i>Campanula latifolia</i> , |
| <i>Silene noctiflora</i> ,    | Linaria minor,                 |
| Chærophyllum temulentum,      | <i>Ophrys muscifera</i> ,      |
| Melilotus officinalis,        | <i>Colchicum autumnale</i> ,   |
| <i>Campanula Trachelium</i> , | Hymenophyllum tunbrigense.     |

DISTRICT IV.—*Wexford and Wicklow.*

## MOUNTAINS.

*Wexford*.—Mount Leinster and Black-stairs, on the borders of *Carlow* (see under District III). *Wicklow*.—Lugnaquilla, 3039 feet; Thonelagee, 2783; Djouce, 2384; and several others above 2000 feet.

## PLANTS.

|                                     |                                  |
|-------------------------------------|----------------------------------|
| <i>Saxifraga stellaris</i> ,        | <i>Salix herbacea</i> ,          |
| <i>Vaccinium Vitis idæa</i> ,       | <i>Lycopodium selaginoides</i> . |
| <i>Adonis autumnalis</i> ,          | <i>Lactuca muralis</i> ,         |
| <i>Ranunculus parviflorus</i> ,     | <i>Campanula Trachelium</i> ,    |
| <i>Papaver Argemone</i> ,           | <i>Wahlenbergia hederacea</i> ,  |
| <i>Papaver hybridum</i> ,           | <i>Pyrola minor</i> ,            |
| <i>Meconopsis cambrica</i> ,        | <i>Echium vulgare</i> ,          |
| <i>Corydalis claviculata</i> ,      | <i>Mertensia maritima</i> ,      |
| <i>Matthiola sinuata</i> ,          | <i>Myosotis collina</i> ,        |
| <i>Sinapis nigra</i> ,              | <i>Orobanche Rapum</i> ,         |
| <i>Subularia aquatica</i> ,         | <i>Calamintha Acinos</i> ,       |
| <i>Viola odorata</i> ,              | <i>Lamium Galeobdolon</i> ,      |
| <i>Linum angustifolium</i> ,        | <i>Asparagus officinalis</i> ,   |
| <i>Rhamnus Frangula</i> ,           | <i>Scilla verna</i> ,            |
| <i>Trifolium scabrum</i> ,          | <i>Juncus acutus</i> ,           |
| <i>Trifolium striatum</i> ,         | <i>Juncus obtusiflorus</i> ,     |
| <i>Trifolium ornithopodioides</i> , | <i>Carex divulsa</i> ,           |
| <i>Lathyrus palustris</i> ,         | <i>Carex axillaris</i> ,         |
| <i>Lythrum hyssopifolium</i> ,      | <i>Carex strigosa</i> ,          |
| <i>Chærophyllum temulentum</i> ,    | <i>Equisetum Moorei</i> .        |

DISTRICT V.—*Kildare; Dublin; Meath; Louth.*

## MOUNTAINS

*Dublin*.—Kippure, 2473 feet. *Louth*.—Carlingford mountains, 1935 feet.

## PLANTS.

|                                 |                                  |
|---------------------------------|----------------------------------|
| <i>Saxifraga stellaris</i> ,    | <i>Cryptogramme crispa</i> ,     |
| <i>Vaccinium Vitis-idæa</i> ,   | <i>Lycopodium alpinum</i> ,      |
| <i>Salix herbacea</i> ,         | <i>Lycopodium selaginoides</i> . |
| <i>Adonis autumnalis</i> ,      | <i>Senecio erucifolius</i> ,     |
| <i>Ranunculus arvensis</i> ,    | <i>Helminthia echinoides</i> ,   |
| <i>Ranunculus parviflorus</i> , | <i>Lactuca muralis</i> ,         |
| <i>Papaver Argemone</i> ,       | <i>Crepis taraxacifolia</i> ,    |
| <i>Papaver hybridum</i> ,       | <i>Monotropa Hypopitys</i> ,     |
| <i>Corydalis claviculata</i> ,  | <i>Cynoglossum montanum</i> ,    |
| <i>Sisymbrium Irio</i> ,        | <i>Echium vulgare</i> ,          |
| <i>Sisymbrium Sophia</i> ,      | <i>Mertensia maritima</i> ,      |



|                             |                             |
|-----------------------------|-----------------------------|
| Sinapis nigra,              | Myosotis collina,           |
| Diploxaxis muralis,         | Orobanche Hederæ,           |
| Raphanus maritimus,         | Linaria repens,             |
| Reseda lutea,               | Linaria minor,              |
| Viola odorata,              | Salvia Verbenaca,           |
| Viola hirta,                | Calamintha Acinos,          |
| Viola lutea,                | Lanium Galeobdolon,         |
| Hypericum hirsutum,         | Galeopsis Ladanum,          |
| Acer campestre,             | Lysimachia Nummularia,      |
| Linum angustifolium,        | <i>Chenopodium rubrum,</i>  |
| Genitas tinctoria,          | Chenopodium urbicum,        |
| Melilotus officinalis,      | Chenopodium murale,         |
| Trifolium scabrum,          | Obione portulacoides,       |
| Trifolium striatum,         | <i>Rumex maritimus,</i>     |
| Trifolium ornithopodioides, | <i>Rumex pulcher,</i>       |
| Vicia lathyroides,          | <i>Mercurialis annua,</i>   |
| Ornithopus perpusillus,     | Ophrys muscifera,           |
| Epilobium angustifolium,    | <i>Scilla verna,</i>        |
| Saxifraga granulata,        | <i>Zostera nana,</i>        |
| Pastinaca sativa,           | <i>Carex divisa,</i>        |
| Chærophyllum temulentum,    | Sclerochloa distans,        |
| <i>Galium Mollugo,</i>      | <i>Sclerochloa Borreri,</i> |
| <i>Galium erectum,</i>      | Sclerochloa procumbens,     |
| ?Galium uliginosum,         | Festuca uniglumis,          |
| Rubia peregrina,            | Bromus erectus,             |
| Inula crithmoides,          | <i>Hordeum sylvaticum,</i>  |
| <i>Artemisia maritima,</i>  | Equisetum Wilsoni.          |
| <i>Senecio viscosus,</i>    |                             |

DISTRICT VI.—*Limerick; Clare; East Galway.\**

## MOUNTAINS.

*Limerick.*—Galtymore, 3004 feet; Seefin, 1706.

## PLANTS.

|                   |                          |
|-------------------|--------------------------|
| Dryas octopetala, | Arctostaphylos Uva-ursi, |
| Sedum Rhodiola,   | Sesleria cærulea,        |
| Galium boreale,   | Lycopodium selaginoides. |
| Hieracium iricum, |                          |

\* In Galway the division into East and West is defined by Lough Corrib and the river which flows from it.

|                                 |                                    |
|---------------------------------|------------------------------------|
| <i>Aquilegia vulgaris</i> ,     | <i>Carduus nutans</i> ,            |
| <i>Meconopsis cambrica</i> ,    | <i>Inula salicina</i> ,            |
| <i>Matthiola sinuata</i> ,      | <i>Pyrola media</i> ,              |
| <i>Arabis ciliata</i> ,         | <i>Monotropa Hypopitys</i> ,       |
| <i>Senebiera didyma</i> ,       | <i>Gentiana verna</i> ,            |
| <i>Helianthemum canum</i> ,     | <i>Orobanche rubra</i> ,           |
| <i>Viola stagnina</i> ,         | <i>Orobanche Hederæ</i> ,          |
| <i>Viola lutea</i> ,            | <i>Teucrium Scordium</i> ,         |
| <i>Viola Curtisii</i> ,         | <i>Ajuga pyramidalis</i> ,         |
| <i>Elatine hexandra</i> ,       | <i>Neotinea intacta</i> ,          |
| <i>Alsine verna</i> ,           | <i>Epipactis ovalis</i> ,          |
| <i>Geranium pusillum</i> ,      | <i>Sisyrinchium anceps</i> ,       |
| <i>Rhamnus Frangula</i> ,       | <i>Allium Babingtonii</i> ,        |
| <i>Astragalus Hypoglottis</i> , | <i>Colchicum autumnale</i> ,       |
| <i>Lathyrus palustris</i> ,     | <i>Eriocaulon septangulare</i> ,   |
| <i>Spiræa Filipendula</i> ,     | <i>Alisma natans</i> ,             |
| <i>Potentilla fruticosa</i> ,   | <i>Rhynchospora fusca</i> .        |
| <i>Sium latifolium</i> ,        | <i>Bromus erectus</i> ,            |
| <i>Galium pusillum</i> ,        | <i>Adiantum Capillus-Veneris</i> . |

DISTRICT VII.—*North Tipperary; King's-county; Westmeath; Longford.*

MOUNTAINS.

*Tipperary*.—Keeper, 2265 feet; Devil's-bit. 1572.

PLANTS.

|                               |                                  |
|-------------------------------|----------------------------------|
| <i>Galium boreale</i> ,       | <i>Lycopodium selaginoides</i> . |
| <i>Vaccinium Vitis-idæa</i> , |                                  |
| <i>Silene noctiflora</i> ,    | <i>Pyrola minor</i> ,            |
| <i>Rhamnus Frangula</i> ,     | <i>Galeobdolon luteum</i> ,      |
| <i>Vicia Orobus</i> ,         | <i>Teucrium Scordium</i> ,       |
| <i>Saxifraga Hirculus</i> ,   | <i>Carex paradoxa</i> .          |

No doubt many other rare plants occur, but this district has been very little explored.

DISTRICT VIII.—*West Galway; West Mayo.\**

## MOUNTAINS.

*Galway*.—Mam Turk, 2003 feet; Twelve Pins of Benaboola, 2396 feet. *Mayo*.—Mweelrea, 2682 feet; Croagh Patrick, 2510; Nephin, 2646 feet; Slieve Cor, 2368.

## PLANTS.

|                                  |                                      |
|----------------------------------|--------------------------------------|
| <i>Thalictrum alpinum</i> ,      | <i>Vaccinium Vitis-idaea</i> ,       |
| <i>Dryas octopetala</i> ,        | <i>Oxyria reniformis</i> ,           |
| <i>Sedum Rhodiola</i> ,          | <i>Salix herbacea</i> ,              |
| <i>Saxifraga umbrosa</i> ,       | <i>Carex rigida</i> ,                |
| <i>Saxifraga stellaris</i> ,     | <i>Sesleria cærulea</i> ,            |
| <i>Saxifraga oppositifolia</i> , | <i>Asplenium viride</i> ,            |
| <i>Galium boreale</i> ,          | <i>Lycopodium alpinum</i> ,          |
| <i>Hieracia</i> (several),       | <i>Lycopodium selaginoides</i> ,     |
| <i>Arctostaphylos Uva-ursi</i> , | <i>Isoetes lacustris</i> .           |
| <i>Arabis ciliata</i> ,          | <i>Callitriche autumnalis</i> ,      |
| <i>Subularia aquatica</i> ,      | <i>Allium Babingtonii</i> ,          |
| <i>Raphanus maritimus</i> ,      | <i>Eriocaulon septangulare</i> ,     |
| <i>Vicia Orobus</i> ,            | <i>Alisma natans</i> ,               |
| <i>Sanguisorba officinalis</i> , | <i>Sparganium natans</i> ,           |
| <i>Potentilla fruticosa</i> ,    | <i>Potamogeton longifolius</i> ,     |
| <i>Erica ciliaris</i> ,          | <i>Potamogeton sparganiifolius</i> , |
| <i>Erica Mackaiana</i> ,         | <i>Potamogeton filiformis</i> ,      |
| <i>Erica mediterranea</i> ,      | <i>Najas flexilis</i> ,              |
| <i>Dabeocia polifolia</i> ,      | <i>Rhynchospora fusca</i> ,          |
| <i>Gentiana verna</i> ,          | <i>Equisetum trachyodon</i> ,        |
| <i>Orobanche rubra</i> ,         | <i>Adiantum Capillus-Veneris</i> ,   |
| <i>Orobanche Hederæ</i> ,        | <i>Pilularia globulifera</i> ,       |
| <i>Utricularia intermedia</i> ,  | <i>Lycopodium inundatum</i> .        |

DISTRICT IX.—*East Mayo; Sligo; Leitrim.*

## MOUNTAINS.

*Sligo*—Knockalongy, 1778 feet; Ben Bulben, 1722 feet.  
*Leitrim*.—Truskmore, 2072 feet; Slieve Anierin, 1922.

\* Mayo is divided into East and West by Lough Mask and the course of the river Ayle, thence the line passes through Castlebar, descending through Lough Cullin, and by the river Moy to the sea at Ballina.

## PLANTS.

*Thalictrum alpinum*,  
*Arabis petraea*,  
*Draba incana*,  
*Silene acaulis*,  
*Arenaria ciliata*,  
*Alchemilla alpina*,  
*Dryas octopetala*,  
*Sedum Rhodiola*,  
*Saxifraga umbrosa*,  
*Saxifraga aizoides*,  
*Saxifraga nivalis*,  
*Saxifraga oppositifolia*,  
*Galium boreale*,

*Aquilegia vulgaris*,  
*Meconopsis cambrica*,  
*Raphanus maritimus*,  
*Viola Curtisii*,  
*Alsine verna*,  
*Potentilla fruticosa*,  
*Rosa Sabini*,

*Hieracia* (several),  
*Arctostaphylos Uva-ursi*,  
*Vaccinium Vitis-idæa*,  
*Oxyria reniformis*,  
*Polygonum viviparum*,  
*Sabix procumbens*,  
*Sesleria cærulea*,  
*Poa alpina*,  
*Polystichum Lonchitis*,  
*Asplenium viride*,  
*Lycopodium alpinum*,  
*Lycopodium selaginoides*.

*Cicuta virosa*,  
*Lamium intermedium*,  
*Galeopsis versicolor*,  
*Callitriche autumnalis*,  
*Polypodium Dryopteris*,  
*Adiantum Capillus-Veneris*.

DISTRICT X.—*Fermanagh; Cavan; Monaghan; Tyrone; Armagh.*

## MOUNTAINS.

*Tyrone*.—Sawel, 2336 feet; Dart, 1612 feet; Mullaghcarn, 1778 feet. *Cavan*.—Cuileagh (near Swanlinbar), 2188 feet. *Armagh*.—Slieve Gullion, 1893 feet.

## PLANTS.

*Rubus Chamæmorus*,  
*Dryas octopetala*,  
*Galium boreale*,  
*Vaccinium Vitis-idæa*,

*Barbarea intermedia*,  
*Barbarea arcuata*,  
*Lathyrus palustris*,  
*Chrysoplenium alternifolium*,  
*Cicuta virosa*,

*Cryptogramme crispa*,  
*Lycopodium alpinum*,  
*Lycopodium selaginoides*.

*Sium latifolium*,  
*Utricularia intermedia*,  
*Stratiotes aloides*,  
*Potamogeton gramineus*,  
*Calamagrostis stricta*,

DISTRICT XI.—*Donegal and City of Londonderry.*

## MOUNTAINS.

Blue Stack, 2213 feet; Errigal, 2462 feet; Muckish, 2190 feet; Slieve Snaght (Innishowen), 2019 feet.

## PLANTS.

|                                  |                                  |
|----------------------------------|----------------------------------|
| <i>Silene acaulis</i> ,          | <i>Vaccinium Vitis-idæa</i> ,    |
| <i>Dryas octopetala</i> ,        | <i>Carex rigida</i> ,            |
| <i>Sedum Rhodiola</i> ,          | <i>Sesleria cœrulea</i> ,        |
| <i>Saxifraga umbrosa</i> ,       | <i>Polystichum Lonchitis</i> ,   |
| <i>Saxifraga oppositifolia</i> , | <i>Asplenium virida</i> ,        |
| <i>Galium boreale</i> ,          | <i>Lycopodium alpinum</i> ,      |
| <i>Hieracia</i> (several),       | <i>Lycopodium selaginoides</i> , |
| <i>Arctostaphylos Uva-ursi</i> , | <i>Isoetes lacustris</i> .       |
| <i>Trollius europæus</i> ,       | <i>Pyrola minor</i> ,            |
| <i>Crambe maritima</i> ,         | <i>Utricularia intermedia</i> ,  |
| <i>Epilobium angustifolium</i> , | <i>Cephalanthera ensifolia</i> , |
| <i>Circæa alpina</i> ,           | <i>Eriocaulon septangulare</i> , |
| <i>Haloscias scoticum</i> ,      | <i>Poa compressa</i> ,           |
| <i>Pyrola media</i> ,            | ? <i>Euphorbia hyberna</i> .     |

DISTRICT XII.—*Down; Antrim; Derry.*

## MOUNTAINS.

*Down*.—Slieve Donard, 2796 feet; Bingian, 2449 feet. *Antrim*.—Divis, 1567 feet; Agnew's Hill, 1558 feet; Slievanea (or Slieve-nanee), 1782 feet; Trostan, 1810 feet. *Derry*.—Sawel, 2236; Dart, 1612; Slieve Doan, 2064 feet; White Mountain, 1996; Slieve Gullion, 1730 feet.

## PLANTS.

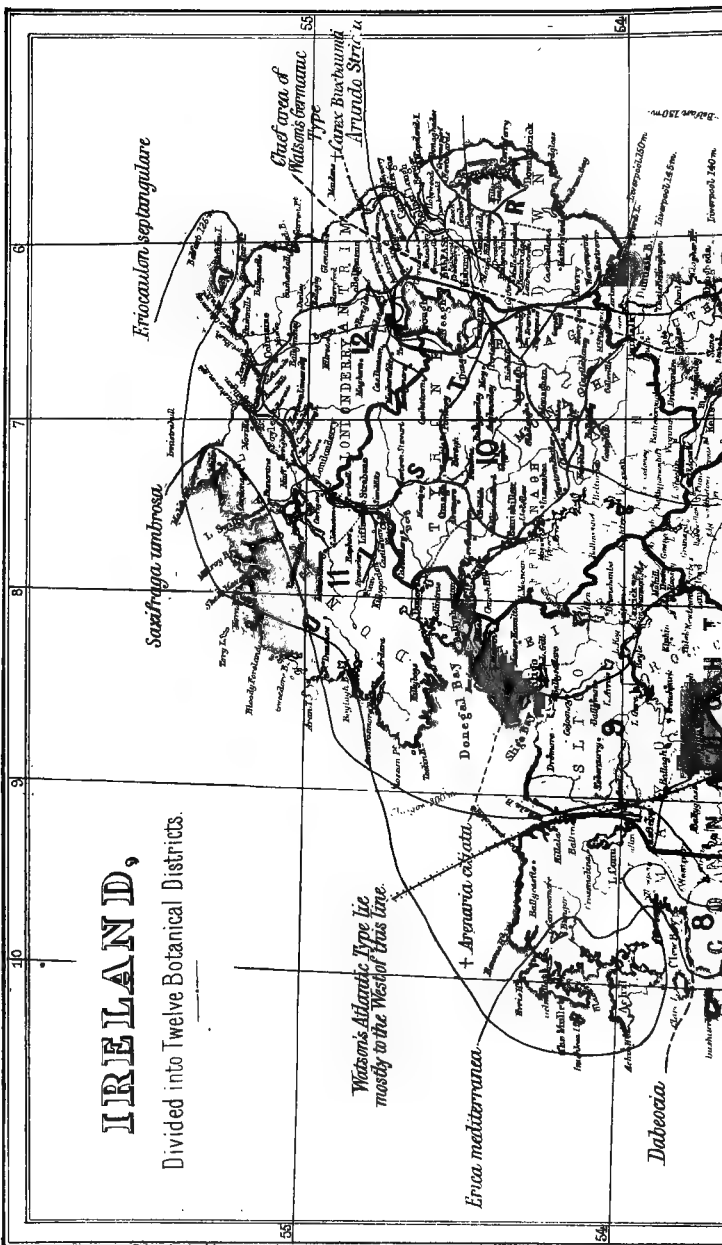
|                                  |                                  |
|----------------------------------|----------------------------------|
| <i>Draba incana</i> ,            | <i>Hieracia</i> (several),       |
| <i>Silene acaulis</i> ,          | <i>Arctostaphylos Uva-ursi</i> , |
| <i>Dryas octopetala</i> ,        | <i>Vaccinium Vitis-idæa</i> ,    |
| <i>Sedum Rhodiola</i> ,          | <i>Cryptogramme crispa</i> ,     |
| <i>Saxifraga stellaris</i> ,     | <i>Lycopodium alpinum</i> ,      |
| <i>Saxifraga aizoides</i> ,      | <i>Lycopodium selaginoides</i> , |
| <i>Saxifraga oppositifolia</i> , | <i>Isoetes lacustris</i> .       |
| <i>Galium boreale</i> ,          |                                  |

- Ranunculus fluitans*,  
*Ranunculus parviflorus*,  
*Papaver Argemone*,  
*Papaver hybridum*,  
*Meconopsis cambrica*,  
*Barbarea intermedia*,  
*Turritis glabra*,  
*Cardamine amara*,  
*Raphanus maritimus*,  
*Elatine Hydropiper*,  
*Elatine hexandra*,  
*Silene noctiflora*,  
*Alsine verna*,  
*Hypericum hirsutum*,  
*Hypericum montanum*,  
*Geranium sylvaticum*,  
*Geranium pratense*,  
*Geranium pusillum*,  
*Rhamnus Frangula*,  
*Lathyrus palustris*,  
*Sanguisorba officinalis*,  
*Agrimonia odorata*,  
*Rosa hibernica*,  
*Rosa Wilsoni*,  
*Rosa villosa*,  
*Rosa Sabini*,  
*Epilobium angustifolium*,  
*Epilobium roseum*,  
*Circæa alpina*,  
*Saxifraga Hirculus*,  
*Saxifraga granulata*,  
*Chrysosplenium alternifolium*,  
*Cicuta virosa*,  
*Carum verticillatum*,  
*Sium latifolium*,  
*Haloscias scoticum*,  
*Silauis pratensis*,
- Adoxa Moschatellina*,  
*Galium Mollugo*,  
*Galium sylvestre*,  
*Pyrola media*,  
*Pyrola minor*,  
*Pyrola secunda*,  
*Monotropa Hypopitys*,  
*Mertensia maritima*,  
*Orobanche rubra*,  
*Melampyrum sylvaticum*,  
*Calamintha Clinopodium*,  
*Lamium intermedium*,  
*Galeopsis versicolor*,  
*Utricularia intermedia*,  
*Hottonia palustris*,  
*Lysimachia Nummularia*,  
*Chenopodium rubrum*,  
 ? *Salicornia radicans*.  
*Ceratophyllum demersum*,  
*Salix nigricans*,  
*Salix laurina*,  
*Salix phyllicifolia*,  
*Cephalanthera ensifolia*,  
*Scilla verna*,  
*Eriocaulon septangulare*,  
*Juncus obtusiflorus*,  
*Potamogeton zosterifolius*,  
*Potamogeton gramineus*,  
*Potamogeton nitens*,  
*Carex elongata*,  
*Carex Buxbaumii*,  
*Calamagrostis Epigejos*,  
*Calamagrostis stricta*,  
*Equisetum umbrosum*,  
*Equisetum trachyodon*,  
*Cryptogramme crispa*,  
*Pilularia globulifera*.

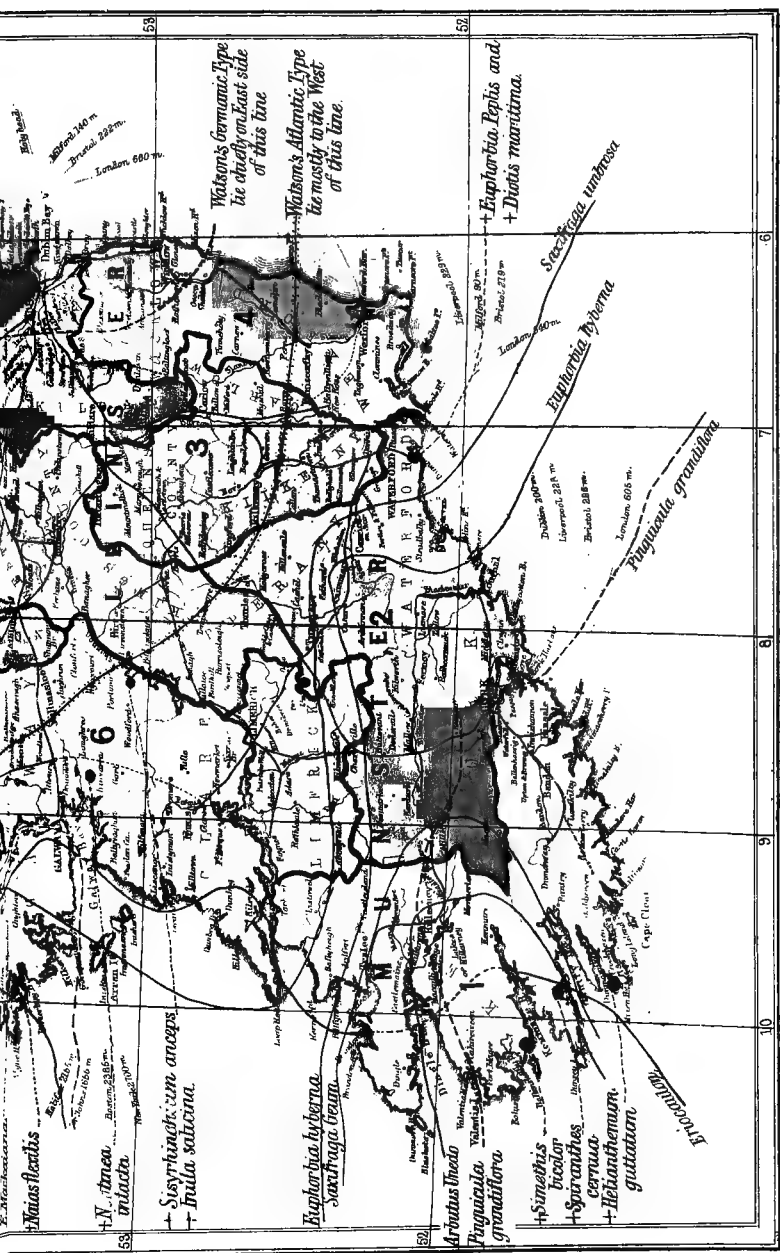


# IRELAND,

Divided into Twelve Botanical Districts.







*N. flexilis*

+ *N. itinea vilata*

+ *Sisyranthus anceps*  
+ *Inula salicina*

*Euphorbia hyberna*  
*Saxifraga bregia*

*Arbutus Unedo*  
*Pinguicula grandiflora*

+ *Sinethis bicolor*  
+ *Sycanthes cernua*  
+ *Helianthemum guttatum*

*R. scaberrima*

+ *Euphorbia peplus* and  
+ *Diots maritima*

*Saxifraga umbrosa*  
*Euphorbia hyberna*

*Pinguicula grandiflora*

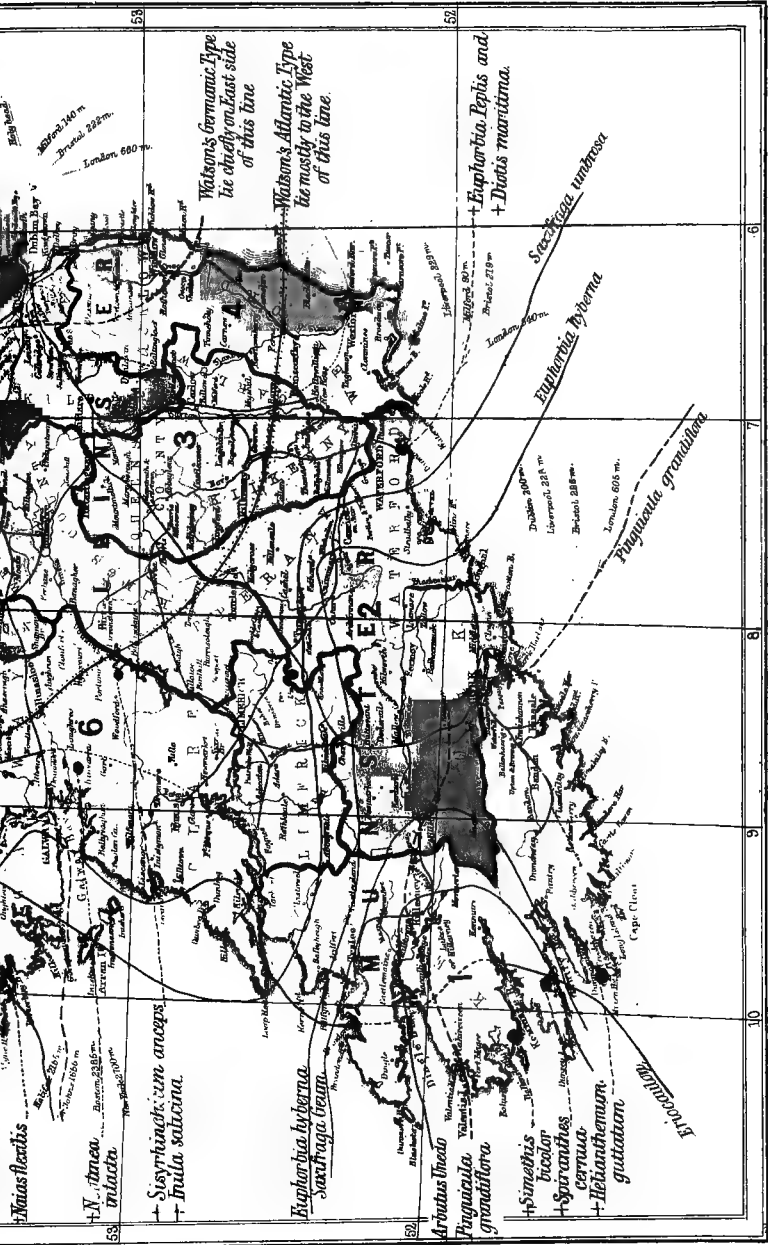
Watson's Germanic Type  
lie chiefly on East side  
of this line

Watson's Atlantic Type  
lie mostly to the West  
of this line.

London, 600 m.  
Dublin, 210 m.  
Bristol, 222 m.

Dublin, 80 m.  
Limerick, 219 m.  
London, 600 m.

Dublin, 80 m.  
Limerick, 219 m.  
Bristol, 222 m.  
London, 600 m.





# DISTRIBUTION IN THE DISTRICTS.

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| * <i>Clematis Vitalba</i> - -    |   |     | 2   | 3 | 5   |   | 7 |   |   |    |    |    | 1    |
| <i>Thalictrum alpinum</i> - -    |   |     |     |   |     |   |   | 8 | 9 |    |    |    | 2    |
| " <i>minus</i> - - -             | 1 |     | 3   | 4 | 5   | 6 | 7 | 8 | 9 |    |    | 12 | 2    |
| " <i>flexuosum</i> - - -         |   |     |     |   |     | 6 |   | 8 | 9 |    |    | 12 | 2    |
| " <i>flavum</i> - - -            |   | 2   | 3   | 4 | 5   | 6 | 7 | 8 | 9 | 10 |    | 12 | 3    |
| <i>Anemone nemorosa</i> - -      | 1 | 2   | 3   | 4 | 5   | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 3    |
| ‡ <i>Adonis autumnalis</i> - -   |   |     |     | 4 | 5   |   |   |   |   |    |    |    | 3    |
| <i>Ranunculus circinatus</i> - - | 1 |     | 3   | 4 | 5   | 6 |   |   |   |    |    |    | 4    |
| " <i>heterophyllus</i> - -       | 1 | 2   | 3   | 4 | 5   | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 4    |
| " <i>trichophyllus</i> - -       | 1 | 2   |     |   | 5   |   |   | 8 | 9 |    |    | 12 | 4    |
| " <i>heterophyllus</i> - -       |   |     |     |   |     |   |   |   |   |    |    | 12 | 5    |
| " <i>Baudotii</i> - - -          | 1 | 2   |     |   |     | 6 |   | 8 |   |    |    |    | 5    |
| " <i>floribundus</i> - - -       |   |     |     |   | 5   |   |   | 8 | 9 |    |    |    | 5    |
| " <i>peltatus</i> - - -          |   |     |     |   |     |   |   | 8 | 9 |    |    | 12 | 5    |
| " <i>pseudo-fluitans</i> - -     | 1 | 2   |     |   | 5   |   |   |   |   | 10 | 11 | 12 | 5    |
| " <i>fluitans</i> - - -          |   |     |     |   |     |   |   |   |   |    |    | 12 | 6    |
| " <i>cœnosus</i> - - -           | 1 | 2   |     | 4 | 5   | ? |   |   |   |    |    |    | 6    |
| " <i>hederaceus</i> - - -        | 1 | 2   | 3   | 4 | 5   | 6 | 7 | 8 | 9 |    | 11 | 12 | 6    |
| " <i>sceleratus</i> - - -        | 1 | 2   | 3   | 4 | 5   |   |   | 8 | 9 | 10 | 11 | 12 | 7    |
| " <i>flammula</i> - - -          | 1 | 2   | 3   | 4 | 5   | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 7    |
| " <i>Lingua</i> - - -            | 1 | 2   | 3   | 4 | 5   | 6 |   | 8 | 9 | 10 | 11 | 12 | 7    |
| " <i>ficaria</i> - - -           | 1 | 2   | 3   | 4 | 5   | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 8    |
| " <i>auricomus</i> - - -         | 1 | 2   | 3   | 4 | 5   | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 8    |
| " <i>acris</i> - - -             | 1 | 2   | 3   | 4 | 5   | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 8    |
| " <i>repens</i> - - -            | 1 | 2   | 3   | 4 | 5   | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 8    |
| " <i>bulbosus</i> - - -          | 1 | 2   | 3   | 4 | 5   | 6 | 7 | 8 | 9 | 10 | ?  | 12 | 8    |
| † " <i>arvensis</i> - - -        |   |     |     |   | 5   |   |   |   |   |    |    |    | 9    |
| " <i>parviflorus</i> - - -       | 1 | 2   | 3   | 4 | 5   |   |   |   |   |    |    | 12 | 9    |
| <i>Caltha pulustris</i> - - -    | 1 | 2   | 3   | 4 | 5   | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 9    |
| <i>Trollius europæus</i> - - -   |   |     |     |   |     |   |   |   |   |    | 11 | ?  | 10   |
| <i>Aquilegia vulgaris</i> - -    | 1 | (2) | (3) |   | (5) | 6 |   | 8 |   |    |    | 12 | 10   |
| <i>Nymphæa alba</i> - - -        | 1 | 2   | 3   | 4 | 5   | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 11   |
| <i>Nuphar lutea</i> - - -        | 1 | 2   | 3   | 4 | 5   | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 11   |
| <i>Papaver Argemone</i> - - -    | 1 | 2   |     | 4 | 5   |   |   |   |   |    |    | 12 | 12   |
| " <i>hybridum</i> - - -          | 1 | 2   |     | 4 | 5   | 6 |   |   |   |    |    | 12 | 12   |
| " <i>Rhœas</i> - - -             | 1 | 2   | 3   | 4 | 5   |   | 7 |   |   | 10 |    | 12 | 13   |
| " <i>dubium</i> - - -            | 1 | 2   | 3   | 4 | 5   | 6 |   | 8 | 9 |    | 11 | 12 | 13   |
| <i>Meconopsis cambrica</i> - -   |   | 2   | 3   | 4 | (5) | 6 |   | 8 | 9 |    |    | 12 | 13   |
| <i>Glaucium luteum</i> - - -     | 1 | 2   |     | 4 | 5   |   |   | 8 |   |    |    | 12 | 14   |
| * <i>Chelidonium majus</i> - -   | 1 | 2   | 3   | 4 | 5   |   | 7 | 8 | 9 | 10 | 11 | 12 | 14   |
| <i>Corydalis claviculata</i> - - | ? |     |     | 4 | 5   | ? |   |   |   |    |    |    | 14   |

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| <i>Fumaria capreolata</i> *      | - | 1 | 2 | 3 | 4   | 5   | 6 | 7 | 8 | 9  | 10 | 11   | 12   | 15 |
| „ <i>pallidiflora</i> -          | - | - | - | - | -   | 5   | 6 | ? | 9 | ?  | 11 | 12   | 15   |    |
| „ <i>confusa</i> -               | - | - | - | - | -   | 5   | 6 | 8 | 9 | 9  | 10 | 11   | 12   | 15 |
| „ <i>officinalis</i> -           | - | - | 1 | 2 | 3   | 4   | 5 | 6 | 7 | 8  | 9  | 10   | 11   | 12 |
| <i>Matthiola sinuata</i> -       | - | - | - | - | -   | 4   | 6 | - | - | -  | -  | -    | -    | 16 |
| * <i>Cheiranthus Cheiri</i> -    | - | - | 1 | 2 | 3   | 4   | 5 | - | - | -  | -  | -    | 12   | 16 |
| <i>Nasturtium officinale</i> -   | - | - | 1 | 2 | 3   | 4   | 5 | 6 | 7 | 8  | 9  | 10   | 11   | 12 |
| „ <i>palustre</i> -              | - | - | 1 | 2 | 3   | 4   | 5 | 6 | 7 | 8  | 9  | 10   | 11   | 12 |
| „ <i>sylvestre</i> -             | - | - | - | 2 | -   | -   | - | - | - | -  | -  | -    | -    | 17 |
| <i>Barbarea vulgaris</i> -       | - | - | 1 | 2 | 3   | 4   | 5 | 6 | 7 | 8  | 9  | 10   | 11   | 12 |
| ‡ „ <i>intermedia</i> -          | - | - | - | - | -   | -   | - | - | - | 10 | -  | -    | 12   | 18 |
| ‡ „ <i>præcox</i> -              | - | - | 1 | 2 | -   | -   | - | - | - | -  | -  | -    | -    | 19 |
| † <i>Turritis glabra</i> -       | - | - | - | - | -   | -   | - | - | - | -  | -  | -    | 12   | 19 |
| <i>Arabis hirsuta</i> -          | - | - | 1 | 2 | 3   | 4   | 5 | 6 | 8 | 9  | 11 | 12   | 12   | 19 |
| „ <i>ciliata</i> -               | - | - | 1 | - | -   | -   | - | 6 | 8 | -  | -  | -    | -    | 20 |
| „ <i>petræa</i> -                | - | - | - | - | -   | -   | - | - | 9 | -  | -  | -    | -    | 20 |
| <i>Cardamine hirsuta</i> -       | - | - | 1 | 2 | 3   | 4   | 5 | 6 | 7 | 8  | 9  | 10   | 11   | 12 |
| „ <i>sylvatica</i> -             | - | - | 1 | 2 | 3   | 4   | 5 | 6 | 9 | 10 | 11 | 12   | 12   | 20 |
| „ <i>pratensis</i> -             | - | - | 1 | 2 | 3   | 4   | 5 | 6 | 7 | 8  | 9  | 10   | 11   | 12 |
| „ <i>amara</i> -                 | - | - | - | - | -   | -   | - | - | - | 10 | -  | -    | 12   | 21 |
| <i>Sisymbrium officinale</i> -   | - | - | 1 | 2 | 3   | 4   | 5 | - | 8 | 9  | 10 | 11   | 12   | 12 |
| † „ <i>Irio</i> -                | - | - | - | - | -   | 5   | - | - | - | -  | -  | -    | -    | 21 |
| „ <i>Sophia</i> -                | - | - | 2 | 4 | 5   | -   | - | - | - | -  | -  | 12   | 12   | 22 |
| „ <i>thalianum</i> -             | - | - | 1 | 2 | 4   | 5   | 6 | 7 | 8 | -  | 11 | 12   | 12   | 22 |
| <i>Alliaria officinalis</i> -    | - | - | 1 | 2 | 3   | 4   | 5 | 6 | 9 | -  | 11 | 12   | 12   | 22 |
| ‡ <i>Brassica oleracea</i> -     | - | - | 2 | - | -   | -   | - | - | - | -  | -  | -    | 12   | 23 |
| † <i>Sinapis nigra</i> -         | - | - | 1 | 2 | (4) | (5) | - | - | - | -  | -  | (12) | 12   | 23 |
| „ <i>arvensis</i> -              | - | - | 1 | 2 | 3   | 4   | 5 | 6 | 7 | 8  | 9  | 10   | 11   | 12 |
| „ <i>alba</i> -                  | - | - | 1 | 2 | 4   | 5   | 6 | 8 | 9 | -  | -  | -    | -    | 24 |
| ‡ <i>Diploxaxis muralis</i> -    | - | - | ? | - | -   | 5   | - | - | - | -  | -  | -    | -    | 24 |
| <i>Draba incana</i> -            | - | - | 1 | - | -   | -   | - | - | 9 | -  | -  | -    | 12   | 25 |
| „ <i>verna</i> -                 | - | - | 1 | 2 | 3   | 4   | 5 | 6 | 7 | 8  | 9  | 11   | 12   | 25 |
| <i>Cochlearia officinalis</i> -  | - | - | 1 | 2 | 3   | 4   | 5 | - | 8 | -  | 11 | 12   | 12   | 26 |
| „ <i>danica</i> -                | - | - | 1 | 2 | 4   | 5   | - | 8 | 9 | -  | -  | -    | 12   | 26 |
| „ <i>anglica</i> -               | - | - | ? | - | -   | 5   | - | - | - | -  | -  | -    | 12   | 27 |
| <i>Armoracia amphibia</i> -      | - | - | 2 | 4 | 5   | 6   | 7 | 8 | 9 | 10 | 11 | 12   | 12   | 27 |
| † <i>Thlaspi arvense</i> -       | - | - | 1 | 3 | 4   | 5   | 6 | - | - | 10 | -  | -    | 12   | 28 |
| <i>Lepidium campestre</i> -      | - | - | 1 | 2 | 3   | 5   | - | - | - | 10 | -  | -    | 12   | 28 |
| „ <i>Smithii</i> -               | - | - | 1 | 2 | 3   | 4   | 5 | - | - | 10 | -  | -    | 12   | 29 |
| „ <i>latifolium</i> -            | - | - | 1 | 2 | -   | -   | - | - | - | -  | -  | -    | -    | 29 |
| <i>Capsella Bursa-pastoris</i> - | - | - | 1 | 2 | 3   | 4   | 5 | 6 | 7 | 8  | 9  | 10   | 11   | 12 |
| <i>Subularia aquatica</i> -      | - | - | 1 | - | 4   | 6   | - | 8 | - | 10 | 11 | 12   | 12   | 30 |
| † <i>Senebiera Coronopus</i> -   | - | - | 1 | 2 | 3   | 4   | 5 | 6 | 8 | 9  | 10 | 11   | 12   | 31 |
| ‡ „ <i>didyma</i> -              | - | - | 1 | 2 | 3   | 4   | 5 | 6 | 8 | -  | -  | -    | 12   | 31 |
| <i>Cakile maritima</i> -         | - | - | 1 | 2 | 4   | 5   | 6 | 8 | 9 | -  | 11 | 12   | 12   | 32 |
| <i>Crambe maritima</i> -         | - | - | 1 | - | 5   | 6   | - | - | - | -  | 11 | 12   | 12   | 32 |
| <i>Raphanus Raphanistrum</i> -   | - | - | 1 | 2 | 3   | 4   | 5 | 6 | 8 | 9  | 10 | 11   | 12   | 32 |
| „ <i>martimus</i> -              | - | - | - | - | 5   | 6   | - | 8 | 9 | -  | 11 | 12   | 12   | 33 |
| † <i>Reseda lutea</i> -          | - | - | 2 | 4 | 5   | -   | - | - | - | -  | -  | -    | 12   | 33 |
| „ <i>Luteola</i> -               | - | - | 1 | 2 | 3   | 4   | 5 | 6 | 7 | 8  | 9  | 10   | 11   | 12 |
| <i>Helianthemum canum</i> -      | - | - | - | - | -   | 6   | - | - | - | -  | -  | -    | -    | 34 |

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| <i>Helianthemum guttatum</i>   | - | 1 |   |   |   |   |   |   |   |    |    |    | 34   |
| <i>Viola palustris</i>         | - | 1 | 2 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 35   |
| † „ <i>odorata</i>             | - | 1 | 2 | 3 | 4 | 5 |   |   |   | 10 |    | 12 | 35   |
| „ <i>hirta</i>                 | - | ? |   |   | 5 |   | ? |   |   |    |    | ?  | 36   |
| „ <i>sylvatica</i>             | - | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9  | 10 | 11 | 12   |
| „ <i>canina</i>                | - | 1 |   | 4 | 5 | 6 |   | 8 | 9 | 10 |    | 12 | 37   |
| „ <i>stagnina</i>              | - |   |   |   |   | 6 |   |   |   |    |    |    | 37   |
| „ <i>lutea</i>                 | - | 1 |   |   | 5 | 6 |   | 8 |   |    |    | ?  | 38   |
| „ <i>Curtisii</i>              | - | 1 | 2 |   |   |   |   |   | 9 |    | 11 | ?  | 38   |
| „ <i>tricolor</i>              | - | 1 | 2 | 3 | 4 | 5 | 6 | 8 | 9 | 10 | 11 | 12 | 39   |
| <i>Drosera rotundifolia</i>    | - | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9  | 10 | 11 | 12   |
| „ <i>intermedia</i>            | - | 1 |   |   | ? | 6 |   | 8 | 9 | 10 |    | 12 | 39   |
| „ <i>anglica</i>               | - | 1 |   | 3 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 40   |
| <i>Parnassia palustris</i>     | - |   | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9  | 10 | 11 | 12   |
| <i>Polygala vulgaris</i>       | - | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9  | 10 | 11 | 12   |
| „ <i>depressa</i>              | - | 1 | 2 |   |   |   |   |   |   |    |    | 12 | 41   |
| <i>Elatine hexandra</i>        | - | ? |   |   |   | 6 |   |   |   |    |    | 12 | 41   |
| „ <i>Hydropiper</i>            | - |   |   |   |   |   |   |   |   |    |    | 12 | 42   |
| * <i>Saponaria officinalis</i> | - | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 |    | 11 | 12 | 42   |
| <i>Silene anglica</i>          | - | 1 | 2 | 3 | 4 |   |   | 8 |   |    | 11 | 12 | 42   |
| „ <i>inflata</i>               | - | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9  | 10 | 12 | 43   |
| „ <i>maritima</i>              | - | 1 | 2 |   | 4 | 5 | 6 |   | 8 | 9  |    | 11 | 12   |
| † „ <i>noctiflora</i>          | - |   |   |   |   |   | 7 |   |   |    |    | 12 | 43   |
| „ <i>acaulis</i>               | - |   |   |   |   |   |   |   | 9 |    | 11 | 12 | 44   |
| <i>Lychnis Flos-cuculi</i>     | - | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9  | 10 | 11 | 12   |
| „ <i>vespertina</i>            | - | 1 | 2 |   | 4 | 5 |   |   |   |    |    | 12 | 44   |
| „ <i>diurna</i>                | - | 1 | 2 | 3 | 4 | 5 |   | 7 |   | 9  | 10 | 11 | 12   |
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| „ <i>maritima</i>              | - | 1 | 2 |   | 4 | 5 | 6 |   | 8 | 9  |    | 11 | 12   |
| „ <i>subulata</i>              | - | 1 |   |   | 6 | 6 |   |   |   |    |    | 12 | 46   |
| „ <i>nodosa</i>                | - | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9  |    | 11 | 12   |
| <i>Honkeneja peploides</i>     | - | 1 | 2 |   | 4 | 5 |   | 8 | 9 |    | 11 | 12 | 47   |
| <i>Alsine verna</i>            | - |   |   |   |   | 6 |   | 8 | 9 |    |    | 12 | 47   |
| <i>Arenaria trinervis</i>      | - | 1 | 2 | 3 | 4 | 5 |   | 7 | 8 | 9  | 10 | 12 | 48   |
| „ <i>serpyllifolia</i>         | - | 1 | 2 | 3 | 4 | 5 |   | 8 |   |    | 11 | 12 | 48   |
| „ <i>ciliata</i>               | - |   |   |   |   |   |   |   | 9 |    |    |    | 48   |
| <i>Stellaria media</i>         | - | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9  | 10 | 11 | 12   |
| „ <i>Holostea</i>              | - | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9  | 10 | 11 | 12   |
| „ <i>glauca</i>                | - |   |   | 4 | 5 | 6 |   | 8 | 9 |    |    |    | 49   |
| „ <i>graminea</i>              | - | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9  | 10 | 12 | 49   |
| „ <i>uliginosa</i>             | - | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9  | 10 | 11 | 12   |
| <i>Cerastium glomeratum</i>    | - | 1 | 2 | 3 | 4 | 5 | 6 |   | 8 | 9  | 10 |    | 12   |
| „ <i>triviale</i>              | - | 1 | 2 | 3 | 4 | 5 | 6 |   | 8 | 9  | 10 |    | 50   |
| „ <i>tetrandrum</i>            | - | 1 | 2 |   | 4 | 5 |   | 8 | 9 | ?  | 11 | 12 | 50   |
| „ <i>semidecandrum</i>         | - | 1 | 2 |   | 4 | 5 |   | 8 |   | ?  | 11 | 12 | 51   |
| „ <i>arvense</i>               | - | 1 | 2 |   | 5 | 6 |   | 8 |   |    |    | ?  | 51   |
| <i>Malva moschata</i>          | - | 1 | 2 | 3 | 4 | 5 |   | 7 |   | 10 |    | 12 | 52   |
| „ <i>sylvestris</i>            | - | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9  | 10 | 11 | 12   |





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| <i>Rubus leucostachys</i> -         | - | 1 |     |   |   | 6 |     | 8 |   |    |    | 12 | 90   |     |
| „ <i>calvatus</i> -                 | - | 1 |     |   |   |   |     |   |   |    |    | 12 | 90   |     |
| „ <i>carpinifolius</i> -            | - | 1 |     |   |   |   |     |   |   |    |    | 12 | 90   |     |
| „ <i>villicaulis</i> -              | - | 1 | 2   |   | 5 |   |     |   |   |    |    | 12 | 90   |     |
| „ <i>macrophyllus</i> -             | - | 1 |     | 4 |   |   |     |   |   |    |    | 12 | 90   |     |
| „ <i>Hystrix</i> -                  | - | 1 |     |   |   |   |     |   |   |    |    | 12 | 90   |     |
| „ <i>rosaceus</i> -                 | - | 1 |     |   |   |   | 7   |   |   |    |    | 12 | 90   |     |
| „ <i>rudis</i> -                    | - |   |     | 4 |   |   |     | 8 |   |    |    | 12 | 91   |     |
| „ <i>Radula</i> -                   | - |   |     |   |   |   |     |   |   |    |    | 12 | 91   |     |
| „ <i>Koehleri</i> -                 | - | 1 |     |   |   |   |     |   |   |    |    | 12 | 91   |     |
| „ <i>Guntheri</i> -                 | - |   |     |   |   |   |     |   |   |    |    | 12 | 91   |     |
| „ <i>humifusus</i> -                | - |   |     |   |   |   |     |   |   |    |    | 12 | 91   |     |
| „ <i>glanulosus</i> -               | - | 1 |     |   |   |   |     |   |   |    |    | 12 | 91   |     |
| „ <i>Balfourianus</i> -             | - | 1 |     |   |   |   |     |   |   |    |    | 12 | 91   |     |
| „ <i>corylifolius</i> -             | - |   |     | 4 |   |   |     | 8 |   |    |    | 12 | 91   |     |
| „ <i>tuberculatus</i> -             | - |   | 3   |   | 5 |   |     |   |   |    |    | 12 | 92   |     |
| „ <i>cæsius</i> -                   | - | 1 | 2   |   |   | 6 |     |   |   |    |    | 12 | 92   |     |
| „ <i>saxatilis</i> -                | - | 1 | 3   | 4 | 5 | 6 | 7   | 8 | 9 | 10 | 11 | 12 | 92   |     |
| „ <i>Chamæmorus</i> -               | - |   |     |   |   |   |     |   |   | 10 |    | 12 | 93   |     |
| <i>Dryas octopetala</i> -           | - | 1 |     |   |   | 6 |     | 8 | 9 | 10 | 11 | 12 | 93   |     |
| <i>Geum urbanum</i> -               | - | 1 | 2   | 3 | 4 | 5 | 6   | 7 | 8 | 9  | 10 | 11 | 12   | 94  |
| „ <i>rivale</i> -                   | - | 1 | 2   |   | 5 |   |     |   |   |    |    | 12 | 94   |     |
| <i>Rosa spinosissima</i> -          | - | 1 | 2   | 3 | 4 | 5 | 6   | 8 | 9 |    | 11 | 12 | 95   |     |
| „ <i>hibernica</i> -                | - |   |     |   |   |   |     |   |   |    |    | 12 | 95   |     |
| „ <i>Sabini</i> -                   | - |   |     |   |   |   |     | 9 |   |    |    | 12 | 95   |     |
| „ <i>Wilsoni</i> -                  | - |   |     |   |   |   |     |   |   |    |    | 12 | 96   |     |
| „ <i>villosa</i> -                  | - |   |     |   |   |   |     |   |   |    |    | 12 | 96   |     |
| „ <i>tomentosa</i> -                | - | 1 | 2   |   | 4 | 5 | 6   | 8 | 9 | 10 | 11 | 12 | 96   |     |
| „ <i>micantha</i> -                 | - | 1 | 2   |   |   |   |     |   |   |    |    | 12 | 97   |     |
| † „ <i>rubiginosa</i> -             | - |   |     |   |   |   |     |   |   |    |    | 12 | 98   |     |
| „ <i>canina</i> -                   | - | 1 | 2   | 3 | 4 | 5 | 6   | 7 | 8 | 9  | 10 | 11 | 12   | 98  |
| „ <i>systyla</i> -                  | - | 1 | 2   |   |   |   |     |   |   |    |    | 12 | 99   |     |
| „ <i>arvensis</i> -                 | - | 1 | 2   | 3 | 4 | 5 | 6   | 8 |   |    |    | 12 | 99   |     |
| <i>Cratægus Oxyacantha</i> -        | - | 1 | 2   | 3 | 4 | 5 | 6   | 7 | 8 | 9  | 10 | 11 | 12   | 100 |
| <i>Pyrus Malus</i> -                | - | 1 | 2   | 3 | 4 | 5 |     | 7 | 8 | 9  |    | 12 | 100  |     |
| „ <i>Aucuparia</i> -                | - | 1 |     |   | 4 | 5 | 6   | 7 | 8 | 9  | 11 | 12 | 100  |     |
| „ <i>Aria</i> -                     | - | 1 | (2) |   | 4 | 5 | (6) | 8 | 9 |    |    | 12 | 100  |     |
| <i>Lythrum Salicaria</i> -          | - | 1 | 2   | 3 | 4 | 5 | 6   | 7 | 8 | 9  | 10 | 11 | 12   | 101 |
| „ <i>hyssopifolium</i> -            | - |   |     |   |   |   |     |   |   |    |    | 12 | 101  |     |
| <i>Peplis Portula</i> -             | - | 1 | 2   | 3 | 4 | 5 | 6   | 7 | 8 | 9  | 10 | 11 | 12   | 102 |
| <i>Epilobium angustifolium</i> -    | - |   |     |   | 4 | 5 |     |   |   |    |    | 11 | 12   | 102 |
| „ <i>hirsutum</i> -                 | - | 1 | 2   | 3 | 4 | 5 | 6   | 7 | 8 | 9  |    | 11 | 12   | 103 |
| „ <i>parviflorum</i> -              | - | 1 | 2   | 3 | 4 | 5 | 6   | 7 | 8 | 9  | 10 | 11 | 12   | 103 |
| „ <i>montanum</i> -                 | - | 1 | 2   | 3 | 4 | 5 | 6   | 7 | 8 | 9  | 10 | 11 | 12   | 103 |
| ‡ „ <i>roseum</i> -                 | - |   |     |   |   |   |     |   |   |    |    | 12 | 103  |     |
| „ <i>obscurum</i> -                 | - | 1 | 2   | 3 | 4 | 5 | 6   | 7 | 8 | 9  | 10 | 11 | 12   | 104 |
| „ <i>palustre</i> -                 | - | 1 | 2   |   | 4 | 5 | 6   |   | 8 | 9  |    | 11 | 12   | 104 |
| <i>Circæa lutetiana</i> -           | - | 1 | 2   | 3 | 4 | 5 | 6   | 7 | 8 | 9  | 10 | 11 | 12   | 104 |
| „ <i>alpina</i> -                   | - |   |     |   |   |   |     |   | 8 | 9  | 10 | 11 | 12   | 104 |
| <i>Myriophyllum verticillatum</i> - | 1 | 2 |     |   | 5 | 6 |     | 8 | 9 |    |    | 12 | 105  |     |
| „ <i>spicatum</i> -                 | 1 | 2 |     | 4 | 5 | 6 | 7   |   |   |    |    | 12 | 106  |     |



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| <i>Myriophyllum alterniflorum</i> - | 1   |     | 3   | 4   |   | 6   |   | 8 | 9  |    | 11 |    | 106  |
| <i>Hippurus vulgaris</i> -          | 1   | 2   | 3   | 4   | 5 | 6   | 7 | 8 | 9  | 10 | 11 | 12 | 106  |
| <i>Montia fontana</i> -             | 1   | 2   | 3   | 4   | 5 | 6   | 7 | 8 | 9  | 10 | 11 | 12 | 107  |
| <i>Lepigonum rubrum</i> -           |     |     |     |     | 5 |     |   |   |    |    |    | 12 | 107  |
| „ <i>Rupicola</i> -                 | 1   | 2   |     | 4   | 5 | 6   |   |   |    |    | 11 | 12 | 108  |
| „ <i>salinum</i> -                  | 1   | 2   | 3   | 4   | 5 | 6   |   | 8 | 9  |    | 11 | 12 | 108  |
| „ <i>marinum</i> -                  | 1   | 2   |     | 4   | 5 | 6   |   | 8 | 9  |    | 11 | 12 | 109  |
| <i>Spergula arvensis</i> -          | 1   | 2   | 3   | 4   | 5 | 6   | 7 | 8 | 9  | 10 | 11 | 12 | 109  |
| <i>Scleranthus annuus</i> -         | 1   | 2   |     | 4   | 5 |     |   |   |    |    |    | 12 | 109  |
| <i>Sedum Rhodiola</i> -             | 1   | 2   |     |     |   | 6   |   | 8 | 9  |    | 11 | 12 | 110  |
| „ <i>Telephium</i> -                | (1) | (2) | (3) | (4) |   | (6) | 7 | 8 | 9  | 10 |    | 12 | 110  |
| * „ <i>dasyphyllum</i> -            | 1   | 2   |     |     |   |     |   |   |    |    |    |    | 111  |
| „ <i>anglicum</i> -                 | 1   | 2   |     | 4   | 5 | 6   | 7 | 8 | 9  |    | 11 | 12 | 111  |
| „ <i>acre</i> -                     | 1   | 2   | 3   | 4   | 5 | 6   | 7 | 8 | 9  |    | 11 | 12 | 112  |
| * „ <i>reflexum</i> -               | 1   | 2   | 3   | 4   | 5 | 6   |   |   | 10 |    |    | 12 | 112  |
| * „ <i>rupestre</i> -               |     | 2   |     |     | 5 |     |   |   |    |    |    | 12 | 113  |
| <i>Cotyledon Umbilicus</i> -        | 1   | 2   | 3   | 4   | 5 | 6   | 7 | 8 | 9  |    | 11 | 12 | 113  |
| <i>Saxifraga umbrosa</i> -          | 1   | 2   |     |     |   |     |   | 8 | 9  |    | 11 |    | 114  |
| „ <i>hirsuta</i> -                  | 1   |     |     |     |   |     |   |   |    |    |    |    | 115  |
| „ <i>Geum</i> -                     | 1   |     |     |     |   |     |   |   |    |    |    |    | 115  |
| „ <i>stellaris</i> -                | 1   | 2   |     | 4   | 5 |     |   | 8 |    |    | 11 | 12 | 116  |
| „ <i>Hirculus</i> -                 |     |     |     |     |   |     | 7 |   |    |    |    | 12 | 117  |
| „ <i>aizoides</i> -                 | 1   |     |     |     |   |     |   |   | 9  |    |    | 12 | 117  |
| „ <i>hypnoides</i> -                | 1   | 2   |     |     |   | 6   | 7 |   | 9  | 10 |    | 12 | 118  |
| „ <i>hirta</i> -                    | 1   | 2   |     |     |   |     |   |   |    |    |    |    | 118  |
| „ <i>affinis</i> -                  | 1   |     |     |     |   |     |   |   |    |    |    |    | 118  |
| „ <i>tridactylites</i> -            | 1   | 2   | 3   | 4   | 5 | 6   | 7 | 8 | 9  |    | 11 | 12 | 119  |
| „ <i>granulata</i> -                |     |     |     |     | 5 |     |   |   |    |    |    | 12 | 119  |
| „ <i>nivalis</i> -                  |     |     |     |     |   |     |   |   | 9  |    |    |    | 119  |
| „ <i>oppositifolia</i> -            |     |     |     |     |   |     |   | 8 | 9  |    | 11 | 12 | 119  |
| <i>Chrysosplenium alternifolium</i> |     |     |     |     |   |     |   |   |    | 10 |    | 12 | 120  |
| „ <i>oppositifolium</i>             | 1   | 2   | 3   | 4   | 5 | 6   | 7 | 8 | 9  | 10 | 11 | 12 | 120  |
| <i>Hydrocotyle vulgaris</i> -       | 1   | 2   | 3   | 4   | 5 | 6   | 7 | 8 | 9  | 10 | 11 | 12 | 121  |
| <i>Sanicula europæa</i> -           | 1   | 2   | 3   | 4   | 5 | 6   | 7 | 8 | 9  | 10 | 11 | 12 | 121  |
| <i>Eryngium maritimum</i> -         | 1   | 2   |     | 4   | 5 | 6   |   | 8 |    |    | 11 | 12 | 121  |
| <i>Cicuta virosa</i> -              |     |     |     |     | 5 |     | 7 |   | 9  | 10 |    | 12 | 121  |
| <i>Apium graveolens</i> -           | 1   | 2   | 3   | 4   | 5 |     |   | 8 |    |    |    | 12 | 122  |
| <i>Helosciadium nodiflorum</i> -    | 1   | 2   | 3   | 4   | 5 | 6   | 7 | 8 | 9  | 10 | 11 | 12 | 122  |
| „ <i>inundatum</i>                  | 1   | 2   | 3   | 4   | 5 | 6   |   | 8 | 9  | 10 | 11 | 12 | 123  |
| ‡ <i>Ægopodium Podagraria</i>       | 1   | 2   | 3   | 4   | 5 |     | 7 |   |    | 10 | 11 | 12 | 123  |
| <i>Carum verticillatum</i> -        | 1   |     |     |     |   |     |   |   |    |    |    | 12 | 123  |
| <i>Bunium flexuosum</i> -           | 1   | 2   | 3   | 4   | 5 | 6   |   | 8 | 9  | 10 | 11 | 12 | 124  |
| <i>Pimpinella magna</i> -           | 1   | 2   |     |     |   | 6   |   | 8 | 9  |    |    |    | 124  |
| „ <i>Saxifraga</i>                  | 1   | 2   | 3   | 4   | 5 | 6   | 7 | 8 |    |    | 11 | 12 | 125  |
| <i>Sium latifolium</i> -            |     |     |     |     | 5 | 6   | 7 |   |    | 10 |    | 12 | 125  |
| „ <i>angustifolium</i>              | 1   | 2   |     | 4   | 5 | 6   | 7 |   |    |    | 11 | 12 | 126  |
| <i>Oenanthe fistulosa</i> -         | 1   | 2   |     | 4   | 5 | 6   |   |   | 9  |    | 11 | 12 | 126  |
| „ <i>Lachenalii</i>                 | 1   | 2   |     | 4   | 5 |     |   | 8 |    |    | 11 | 12 | 126  |
| „ <i>crocata</i> -                  | 1   | 2   | 3   | 4   | 5 |     |   | 8 |    | 10 | 11 | 12 | 127  |
| „ <i>Phellandrium</i>               |     | 2   |     | 4   | 5 | 6   |   | 8 | 9  | 10 | 11 | 12 | 127  |
| <i>Æthusa Cynapium</i> -            | 1   | 2   | 3   | 4   | 5 | 6   |   | 8 | 9  | 10 |    | 12 | 127  |

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| ‡ Foeniculum officinale - | 1   | 2   |     | 4 | (5) |   |   | (8) |   |    |    | (12) | 128  |
| Haloscias scoticum -      | -   | -   | -   | - | -   | - | - | -   | - | -  | 11 | 12   | 128  |
| Silaus pratensis -        | -   | -   | -   | - | -   | - | - | -   | - | -  | -  | 12   | 129  |
| Crithmum maritimum -      | 1   | 2   |     | 4 | 5   | 6 |   | 8   | 9 |    | 11 | 12   | 129  |
| Angelica sylvestris -     | 1   | 2   | 3   | 4 | 5   | 6 | 7 | 8   | 9 | 10 | 11 | 12   | 129  |
| ‡ Pastinaca sativa -      | -   | -   | -   | - | -   | - | - | -   | - | -  | -  | -    | 130  |
| Heracleum Sphondylium     | 1   | 2   | 3   | 4 | 5   | 6 | 7 | 8   | 9 | 10 | 11 | 12   | 130  |
| Daucus Carota -           | 1   | 2   | 3   | 4 | 5   | 6 |   | 8   | 9 |    | 11 | 12   | 131  |
| Torilis Anthriscus -      | 1   | 2   | 3   | 4 | 5   | 6 | 7 | 8   | 9 | 10 | 11 | 12   | 131  |
| „ nodosa -                | 1   | 2   |     | 4 | 5   | 6 | 7 |     |   |    |    | 12   | 131  |
| Scandix Pecten-Veneris    | 1   | 2   | 3   | 4 | 5   | 6 |   | 8   |   | 10 | 11 | 12   | 132  |
| Anthriscus sylvestris -   | 1   | 2   | 3   | 4 | 5   | 6 | 7 | 8   | 9 | 10 | 11 | 12   | 132  |
| „ vulgaris -              | (1) | (2) |     | 4 | 5   |   |   | 8   | 9 |    | 11 | 12   | 132  |
| Chærophyllum temulum      | -   | -   | 3   |   | 5   |   |   |     |   |    |    | 12   | 133  |
| * Myrrhis odorata -       | -   | -   | -   | - | 5   |   | 7 |     |   | 10 | 11 | 12   | 133  |
| Conium maculatum -        | 1   | 2   | 3   | 4 | 5   | 6 |   | 8   | 9 | 10 | 11 | 12   | 134  |
| ‡ Smyrniolum Olusatrum    | 1   | 2   | 3   | 4 | 5   | 6 | 7 | 8   | 9 | 10 | 11 | 12   | 134  |
| Adoxa Moschatellina -     | -   | -   | -   | - | -   | - | - | -   | - | -  | -  | 12   | 135  |
| Hedera Helix -            | 1   | 2   | 3   | 4 | 5   | 6 | 7 | 8   | 9 | 10 | 11 | 12   | 135  |
| Cornus sanguinea -        | -   | (2) | (3) |   | (5) | 6 |   |     |   | 10 |    |      | 136  |
| ‡ Sambucus Ebulus -       | 1   | 2   | 3   | 4 | 5   | 6 |   |     | 9 | 10 | 11 | 12   | 137  |
| „ nigra -                 | 1   | 2   | 3   | 4 | 5   | 6 | 7 | 8   | 9 | 10 | 11 | 12   | 137  |
| Viburnum Opulus -         | 1   | 2   | 3   | 4 | 5   | 6 | 7 | 8   | 9 | 10 | 11 | 12   | 137  |
| Lonicera Periclymenum     | 1   | 2   | 3   | 4 | 5   | 6 | 7 | 8   | 9 | 10 | 11 | 12   | 138  |
| Sherardia arvensis -      | 1   | 2   | 3   | 4 | 5   | 6 | 7 | 8   | 9 | 10 | 11 | 12   | 138  |
| Asperula cynanchica -     | 1   | 2   |     |   |     | 6 |   | 8   |   |    |    |      | 138  |
| „ odorata -               | 1   | 2   | 3   | 4 | 5   | 6 | 7 | 8   | 9 | 10 | 11 | 12   | 139  |
| Galium boreale -          | 1   | 2   |     |   |     | 6 | 7 | 8   | 9 | 10 | 11 | 12   | 139  |
| „ Aparine -               | 1   | 2   | 3   | 4 | 5   | 6 | 7 | 8   | 9 | 10 | 11 | 12   | 140  |
| „ erectum -               | -   | -   | -   | - | 5   |   |   |     |   |    |    |      | 140  |
| „ Mollugo -               | -   | -   | -   | - | 5   |   |   |     |   |    |    | 12   | 140  |
| „ verum -                 | 1   | 2   | 3   | 4 | 5   | 6 | 7 | 8   | 9 | 10 | 11 | 12   | 141  |
| „ saxatile -              | 1   | 2   | 3   | 4 | 5   | 6 | 7 | 8   | 9 | 10 | 11 | 12   | 141  |
| „ sylvestre -             | 1   |     | 3   |   |     | 6 |   |     |   |    |    | 12   | 141  |
| „ uliginosum -            | -   | -   | -   | ? | 5   | ? |   |     |   |    |    |      | 142  |
| „ palustre -              | 1   | 2   | 3   | 4 | 5   | 6 | 7 | 8   | 9 | 10 | 11 | 12   | 142  |
| Rubia peregrina -         | 1   | 2   |     |   | 5   | 6 |   | 8   | 9 |    |    |      | 143  |
| Valeriana officinalis     | 1   | 2   | 3   | 4 | 5   | 6 | 7 | 8   | 9 | 10 | 11 | 12   | 143  |
| Valerianella olitoria -   | 1   | 2   | 3   | 4 | 5   | 6 | 7 |     |   | 10 | 11 | 12   | 144  |
| „ Auricula                | 1   | 2   |     |   | 5   | 6 |   | 8   | 9 |    |    |      | 144  |
| „ dentata -               | 1   | 2   | 3   | 4 | 5   | 6 | 7 | 8   |   | 10 |    | 12   | 144  |
| Dipsacus sylvestris -     | 1   | 2   | 3   |   | 5   | 6 |   |     |   |    |    |      | 145  |
| Knautia arvensis -        | 1   | 2   | 3   | 4 | 5   |   | 7 | 8   | 9 | 10 |    | 12   | 146  |
| Scabiosa succisa -        | 1   | 2   | 3   | 4 | 5   | 6 | 7 | 8   | 9 | 10 | 11 | 12   | 146  |
| Eupatorium cannabinum     | 1   | 2   | 3   | 4 | 5   | 6 | 7 | 8   | 9 | 10 | 11 | 12   | 146  |
| Petasites vulgaris -      | 1   | 2   | 3   | 4 | 5   | 6 | 7 | 8   | 9 | 10 | 11 | 12   | 146  |
| Tussilago Farfara -       | 1   | 2   | 3   | 4 | 5   | 6 | 7 | 8   | 9 | 10 | 11 | 12   | 147  |
| Aster Tripolium -         | 1   |     |     | 4 | 5   | 6 |   | 8   | 9 |    | 11 | 12   | 147  |
| Erigeron acris -          | -   | 2   | 3   | 4 | 5   | 6 |   |     |   |    |    |      | 147  |
| Bellis perennis -         | 1   | 2   | 3   | 4 | 5   | 6 | 7 | 8   | 9 | 10 | 11 | 12   | 148  |
| Solidago Virgaurea -      | 1   | 2   | 3   | 4 | 5   | 6 | 7 | 8   | 9 | 10 | 11 | 12   | 148  |

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| ‡ „ <i>Helenium</i> - - -                               | 1 | 2 |   | 4 |     | 6 |   | 8 |   | 10 |      | 12 | 149  |
| „ <i>crithmoides</i> - - -                              | 1 | 2 |   |   | 5   |   |   |   |   |    |      |    | 149  |
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| <i>Bidens triparita</i> - - -                           | 1 | 2 |   | 4 | 5   | 6 |   | 8 | 9 | 10 | 11   | 12 | 150  |
| „ <i>cernua</i> - - -                                   | 1 | 2 | 2 | 4 | 5   |   | 7 | 8 | 9 | 10 | 11   | 12 | 150  |
| <i>Achillea Ptarmica</i> - - -                          | 1 | 2 | 3 | 4 | 5   | 6 | 7 | 8 | 9 | 10 | 11   | 12 | 150  |
| „ <i>Millefolium</i> - - -                              | 1 | 2 | 3 | 4 | 5   | 6 | 7 | 8 | 9 | 10 | 11   | 12 | 151  |
| <i>Anthemis arvensis</i> - - -                          | 1 | 2 |   |   | 5   |   |   | 8 |   |    |      |    | 151  |
| „ <i>Cotula</i> - - -                                   | 1 | 2 | 3 | 4 | 5   | 6 | 7 | 8 |   |    |      |    | 151  |
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| <i>Matricaria inodora</i> - - -                         | 1 | 2 | 3 | 4 | 5   | 6 | 7 | 8 | 9 | 10 | 11   | 12 | 152  |
| † „ <i>Chamomilla</i> - - -                             | ? |   |   |   | 5   |   |   |   |   |    |      | 12 | 152  |
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| <i>Diotis maritima</i> - - -                            | 1 | 2 |   |   |     |   |   |   |   |    |      |    | 153  |
| ‡ <i>Artemisia Absinthium</i> - - -                     | 1 | 2 | 3 | 4 | 5   | 6 | 7 | 8 | 9 | 10 | 11   | 12 | 154  |
| „ <i>vulgaris</i> - - -                                 | 1 | 2 | 3 | 4 | 5   | 6 | 7 | 8 | 9 | 10 | 11   | 12 | 154  |
| „ <i>maritima</i> - - -                                 |   |   |   |   | 5   |   |   |   |   |    |      |    | 154  |
| * <i>Tanacetum vulgare</i> - - -                        | 1 | 2 | 3 | 4 | 5   |   | 7 |   | 9 | 10 | 11   | 12 | 155  |
| <i>Filago germanica</i> - - -                           | 1 | 2 | 3 | 4 | 5   | 6 | 7 | 8 | 9 | 10 | 11   | 12 | 155  |
| „ <i>minima</i> - - -                                   | 1 | 2 |   | 4 | 5   |   |   |   |   | 10 |      |    | 155  |
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| „ <i>sylvaticum</i> - - -                               | 1 | 2 |   |   | 5   |   |   | 8 | 9 | 10 |      |    | 156  |
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| † „ <i>viscosus</i> - - -                               |   |   |   |   | ?   | 5 |   |   |   |    |      | 12 | 157  |
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| * „ <i>saracenicus</i> - - -                            | 1 | 2 | 3 |   |     |   |   |   |   |    |      | 12 | 159  |
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| <i>Carlina vulgaris</i> - - -                           | 1 | 2 | 3 | 4 | 5   | 6 | 7 | 8 |   |    |      | 12 | 160  |
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| „ <i>minus</i> - - -                                    | 1 | 2 | 3 | 4 | 5   | 6 | 7 | 8 |   | 10 | 11   | 12 | 161  |
| „ <i>intermedium</i> - - -                              | 1 | 2 |   |   |     |   |   |   | 9 |    |      |    | 161  |
| <i>Centaurea nigra</i> - - -                            | 1 | 2 | 3 | 4 | 5   | 6 | 7 | 8 | 9 | 10 | 11   | 12 | 161  |
| „ <i>Cyanus</i> - - -                                   | 1 | 2 |   | 4 | 5   |   |   |   |   | 10 | 11   | 12 | 162  |
| „ <i>Scabiosa</i> - - -                                 | 1 | 2 | 3 |   | 5   | 6 |   | 8 |   |    |      |    | 162  |
| <i>Carduus nutans</i> - - -                             | 1 | 2 |   |   | (5) | 6 |   |   |   |    | (12) |    | 163  |
| „ <i>crispus</i> - - -                                  |   |   |   |   | 5   |   | 7 |   |   | 10 | 11   | 12 | 163  |
| „ <i>tenuiflorus</i> - - -                              | 1 | 2 | 3 | 4 | 5   | 6 | 7 |   |   | 11 | 12   |    | 164  |
| „ <i>lanceolatus</i> - - -                              | 1 | 2 | 3 | 4 | 5   | 6 | 7 | 8 | 9 | 10 | 11   | 12 | 164  |
| „ <i>arvensis</i> - - -                                 | 1 | 2 | 3 | 4 | 5   | 6 | 7 | 8 | 9 | 10 | 11   | 12 | 164  |
| „ <i>palustris</i> - - -                                | 1 | 2 | 3 | 4 | 5   | 6 | 7 | 8 | 9 | 10 | 11   | 12 | 164  |
| „ <i>pratensis</i> - - -                                | 1 | 2 | 3 | 4 | 5   | 6 | 7 | 8 | 9 | 10 | 11   | 12 | 165  |
| * <i>Silybum Marianum</i> - - -                         | 1 | 2 | 3 | 4 | 5   |   |   | 8 |   | 10 |      |    | 165  |
| <i>Lapsana communis</i> - - -                           | 1 | 2 | 3 | 4 | 5   | 6 | 7 | 8 | 9 | 10 | 11   | 12 | 166  |
| ‡ <i>Cichorium Intybus</i> - - -                        | 1 | 2 |   | 4 | 5   |   |   |   |   |    |      | 12 | 166  |

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| <i>Hypochoeris radicata</i> . . .    | 1 | 2 | 3 | 4 | 5   | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 167  |
| <i>Thrinchia hirta</i> . . .         | 1 | 2 |   | 4 | 5   | 6 |   | 8 |   |    |    |    | 167  |
| <i>Apargia hispida</i> . . .         | 1 | 2 | 3 | 4 | 5   |   |   | 8 | 9 |    | 11 | 12 | 167  |
| „ <i>autumnalis</i> . . .            | 1 | 2 | 3 | 4 | 5   | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 168  |
| <i>Tragopogon pratensis</i> . . .    |   | 2 |   | 4 | 5   | 6 |   | 8 | 9 |    |    |    | 168  |
| <i>Helminthia echioides</i> . . .    |   | 2 |   |   | 5   |   |   |   |   |    |    |    | 169  |
| <i>Lactuca muralis</i> . . .         |   |   |   | 4 | 5   |   |   |   |   |    |    |    | 170  |
| <i>Leontodon Taraxacum</i> . . .     | 1 | 2 | 3 | 4 | 5   | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 170  |
| <i>Sonchus oleraceus</i> . . .       | 1 | 2 | 3 | 4 | 5   | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 171  |
| „ <i>asper</i> . . .                 | 1 | 2 | 3 | 4 | 5   | 6 |   | 8 | 9 |    |    |    | 171  |
| „ <i>arvensis</i> . . .              | 1 | 2 | 3 | 4 | 5   | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 171  |
| <i>Crepis virens</i> . . .           | 1 | 2 | 3 | 4 | 5   | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 172  |
| „ <i>biennis</i> . . .               |   |   |   |   |     |   |   |   |   |    |    |    | 172  |
| „ <i>paludosa</i> . . .              | 1 | 2 |   | 4 | 5   |   |   | 8 | 9 | 10 | 11 | 12 | 172  |
| <i>Hieracium Pilosella</i> . . .     | 1 | 2 | 3 | 4 | 5   | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 173  |
| „ <i>anglicum</i> . . .              | 1 |   |   |   |     |   |   | 8 | 9 |    | 11 | 12 | 173  |
| „ <i>iricum</i> . . .                | 1 |   |   |   |     | 6 |   | 8 | 9 |    | 11 | 12 | 174  |
| „ <i>pallidum</i> . . .              | 1 |   |   |   |     |   |   | 8 |   |    |    |    | 174  |
| „ <i>lasiophyllum</i> . . .          |   |   |   |   |     |   |   |   | 9 |    |    | 12 | 174  |
| „ <i>murorum</i> . . .               |   |   |   |   |     |   |   |   |   | 11 |    |    | 174  |
| „ <i>cesium</i> . . .                |   |   |   |   |     |   |   |   |   |    | 11 |    | 175  |
| „ <i>vulgatum</i> . . .              |   |   |   | 4 | 5   |   |   |   |   | 11 |    |    | 175  |
| „ <i>gothicum</i> . . .              | 1 |   |   |   | 5   |   |   | 8 |   |    |    |    | 175  |
| „ <i>prenanthoides</i> . . .         |   |   |   |   |     |   |   |   |   | 10 |    |    | 176  |
| „ <i>strictum</i> . . .              |   |   |   | 4 |     |   |   |   |   |    |    |    | 176  |
| „ <i>umbellatum</i> . . .            | 1 |   | 3 | 4 |     |   |   | 8 |   |    |    |    | 176  |
| „ <i>crocatum</i> . . .              |   |   |   |   |     |   |   | 8 |   |    |    |    | 177  |
| „ <i>corymbosum</i> . . .            |   |   |   | 4 |     |   |   |   |   |    |    |    | 177  |
| „ <i>boreale</i> . . .               | ? |   |   | 4 | 5   |   |   |   |   |    |    |    | 177  |
| <i>Lobelia Dortmanna</i> . . .       | 1 | 2 |   | 4 |     | 6 |   | 8 | 9 | 10 | 11 | 12 | 178  |
| <i>Jasione montana</i> . . .         | 1 | 2 | 3 | 4 | 5   | 6 |   | 8 | 9 |    | 11 | 12 | 178  |
| <i>Campanula latifolia</i> . . .     |   |   | ? | ? |     |   |   |   |   |    |    |    | 179  |
| „ <i>Trachelium</i> . . .            |   |   | 3 |   | (5) |   |   |   |   |    |    |    | 179  |
| „ <i>rotundifolia</i> . . .          | 1 | 2 |   | 4 | 5   | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 179  |
| <i>Wahlenbergia hederacea</i> . . .  | 1 | 2 |   | 4 |     |   |   |   |   |    |    |    | 180  |
| <i>Arbutus Unedo</i> . . .           |   | 1 |   |   |     |   |   |   |   |    |    |    | 180  |
| <i>Arctostaphylos Uva-ursi</i> . . . |   |   |   |   |     | 6 |   | 8 | 9 |    | 11 | 12 | 181  |
| <i>Andromeda polifolia</i> . . .     | 1 |   | 3 | 4 | 5   | 6 | 7 | 8 | 9 | 10 |    | 12 | 181  |
| <i>Calluna vulgaris</i> . . .        | 1 | 2 | 3 | 4 | 5   | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 182  |
| <i>Erica cinerea</i> . . .           | 1 | 2 | 3 | 4 | 5   | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 182  |
| „ <i>ciliaris</i> . . .              |   |   |   |   |     |   |   | 8 |   |    |    |    | 183  |
| „ <i>Makaiana</i> . . .              |   |   |   |   |     |   |   | 8 |   |    |    |    | 183  |
| „ <i>Tetralix</i> . . .              | 1 | 2 | 3 | 4 | 5   | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 183  |
| „ <i>mediterranea</i> . . .          |   |   |   |   |     |   |   | 8 |   |    |    |    | 184  |
| <i>Dabeocia polifolia</i> . . .      |   |   |   |   |     |   |   | 8 |   |    |    |    | 184  |
| <i>Vaccinium Myrtillus</i> . . .     | 1 | 2 | 3 | 4 | 5   | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 185  |
| „ <i>Vitis-idaea</i> . . .           |   | 2 |   | 4 | 5   |   | 7 | 8 | 9 | 10 | 11 | 12 | 185  |
| „ <i>Oxycoccus</i> . . .             | 1 | 2 |   | 4 | 5   | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 186  |
| <i>Pyrola media</i> . . .            |   |   |   |   |     | 6 |   |   | 9 |    | 11 | 12 | 186  |
| „ <i>minor</i> . . .                 |   |   |   | 4 |     |   | 7 |   |   |    | 11 | 12 | 187  |
| „ <i>secunda</i> . . .               |   |   |   |   |     |   |   |   |   |    | 12 |    | 187  |

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| <i>Monotropa Hypopitys</i> -     | - |     |   |     | 5   | 6   |     |     |     |    |      | 12   | 187  |     |
| <i>Ilex Aquifolium</i> -         | - | 1   | 2 | 3   | 4   | 6   | 7   | 8   | 9   |    | 11   | 12   | 188  |     |
| <i>Ligustrum vulgare</i> -       | - | (1) | 2 | (3) | (4) | (5) | (6) | (7) | (9) |    | (11) | (12) | 188  |     |
| <i>Fraxinus excelsior</i> -      | - | 1   | 2 | 3   | 4   | 5   | 6   | 7   | 8   | 9  | 10   | 11   | 12   | 188 |
| <i>Chlora perfoliata</i> -       | - | 1   | 2 | 3   | 4   | 5   | 6   | 7   | 8   | 9  |      | (12) | 189  |     |
| <i>Erythræa pulchella</i> -      | - | 1   | 2 |     |     |     |     |     |     |    |      | ?    | 189  |     |
| „ <i>Centaurium</i> -            | - | 1   | 2 | 3   | 4   | 5   | 6   | 7   | 8   | 9  | 11   | 12   | 190  |     |
| <i>Cicendia filiformis</i> -     | - | 1   |   |     |     |     |     |     |     |    |      |      | 190  |     |
| <i>Gentiana Amarella</i> -       | - | 1   | 2 | 3   | 4   | 5   | 6   | 7   | 8   | 9  |      | 12   | 190  |     |
| „ <i>campestris</i> -            | - | 1   | 2 | 8   | 4   | 5   | 6   | 7   | 8   | 9  | 11   | 12   | 191  |     |
| „ <i>verna</i> -                 | - |     |   |     |     | 6   |     | 8   | 9   |    |      |      | 191  |     |
| <i>Menyanthes trifoliata</i> -   | - | 1   | 2 | 3   | 4   | 5   | 6   | 7   | 8   | 9  | 10   | 11   | 12   | 192 |
| <i>Convolvulus arvensis</i> -    | - | 1   | 2 | 3   | 4   | 5   | ?   | 7   |     | 10 |      | 12   | 192  |     |
| „ <i>sepium</i> -                | - | 1   | 2 | 3   | 4   | 5   | 6   | 7   | 8   | 9  |      | 11   | 12   | 193 |
| „ <i>Soldanella</i> -            | - | 1   | 2 |     | 4   | 5   | 6   |     |     |    | 11   | 12   | 193  |     |
| * <i>Cuscuta Epilinum</i> -      | - | 1   | 2 | 3   | 4   | 5   |     | 8   | 9   |    | 11   | 12   | 193  |     |
| <i>Cynoglossum officinale</i> -  | - | 1   | 2 | 3   | 4   | 5   |     |     |     |    |      | 12   | 194  |     |
| „ <i>montanum</i> -              | - |     |   |     |     | 5   |     |     |     |    |      |      | 194  |     |
| * <i>Anchusa sempervirens</i> -  | - | 1   | 2 |     |     | 5   |     |     | 9   | 10 | 11   | 12   | 195  |     |
| <i>Lycopsis arvensis</i> -       | - | ?   | 2 | 3   | 4   | 5   |     |     |     |    |      | 12   | 195  |     |
| <i>Symphytum officinale</i> -    | - | 1   | 2 | 3   | 4   | 5   | 6   | 7   | 8   | 9  | 10   | 11   | 12   | 196 |
| <i>Echium vulgare</i> -          | - | 1   | 2 | (3) | 4   | 5   |     |     |     |    |      | 12   | 196  |     |
| <i>Mertensia maritima</i> -      | - | ?   |   |     | 4   | 5   |     |     |     |    | 11   | 12   | 197  |     |
| <i>Lithospermum officinale</i> - | - | 1   | 2 | 3   | 4   | 5   | 6   | 7   | 8   |    | 10   | 12   | 197  |     |
| „ <i>arvense</i> -               | - | 1   | 2 | 3   | 4   | 5   | 6   |     | 9   | 10 |      | 12   | 198  |     |
| <i>Myosotis palustris</i> -      | - | 1   | 2 | 3   | 4   | 5   | 6   | 7   | 8   | 9  | 10   | 11   | 12   | 198 |
| „ <i>repens</i> -                | - | 1   |   |     | 4   | 5   |     | 8   | 9   |    | 11   | 12   | 199  |     |
| „ <i>caespitosa</i> -            | - | 1   | 2 | 3   | 4   | 5   | 6   | 8   | 9   |    | 11   | 12   | 199  |     |
| „ <i>arvensis</i> -              | - | 1   | 2 | 3   | 4   | 5   | 6   | 7   | 8   | 9  | 10   | 11   | 12   | 199 |
| „ <i>collina</i> -               | - |     |   |     | 4   | 5   |     |     |     |    |      | 12   | 199  |     |
| „ <i>versicolor</i> -            | - | 1   | 2 | 3   | 4   | 5   | 6   | 7   | 8   | 9  | 10   | 11   | 12   | 200 |
| † <i>Solanum nigrum</i> -        | - | 1   |   |     |     | 5   | 7   |     |     |    |      | 12   | 200  |     |
| „ <i>Dulcamara</i> -             | - | 1   | 2 | 3   | 4   | 5   | 6   | 7   | 8   | 9  | (10) | 11   | 12   | 200 |
| * <i>Atropa Belladonna</i> -     | - | 1   |   | 3   |     | 5   | 6   |     |     |    |      | ?    | 201  |     |
| <i>Hyoxyamus niger</i> -         | - | 1   | 2 | 3   | 4   | 5   | 7   |     | 9   | 10 |      | 12   | 202  |     |
| <i>Orobanchè rapum</i> -         | - | 1   | 2 | 3   | 4   | ?   |     |     |     |    |      |      | 202  |     |
| „ <i>rubra</i> -                 | - |     |   |     |     |     | 6   |     | 8   |    | 11   | 12   | 203  |     |
| „ <i>Hederæ</i> -                | - | 1   | 2 | 3   | 4   | 5   | 6   |     | 8   | 9  | 11   |      | 203  |     |
| <i>Lathræa Squamaria</i> -       | - |     | 2 |     | 4   | 5   | 6   |     |     | 10 |      | 12   | 204  |     |
| <i>Verbascum Thapsus</i> -       | - | 1   | 2 | 3   | 4   | 5   | 6   | 7   |     | 9  | 10   | 12   | 205  |     |
| † „ <i>Blattaria</i> -           | - | 1   | 2 |     | 4   |     |     |     |     |    |      |      | 205  |     |
| † „ <i>virgatum</i> -            | - | 1   | 2 |     |     |     |     |     |     |    |      |      | 206  |     |
| <i>Digitalis purpurea</i> -      | - | 1   | 2 | 3   | 4   | 5   | 6   | 7   | 8   | 9  | 10   | 11   | 12   | 206 |
| † <i>Antirrhinum Orontium</i> -  | - | 1   | 2 |     |     | 5   | 6   |     |     |    |      |      | 206  |     |
| <i>Linaria Elatine</i> -         | - | 1   | 2 |     |     |     | 6   |     |     |    |      |      | 207  |     |
| „ <i>minor</i> -                 | - |     | 2 | 3   | 4   | 5   |     |     |     |    |      |      | 207  |     |
| „ <i>repens</i> -                | - | 1   |   | 3   |     | 5   |     |     |     |    |      |      | 208  |     |
| „ <i>vulgaris</i> -              | - | 1   | 2 | 3   | 4   | 5   | 7   | 8   |     |    |      | 12   | 208  |     |
| <i>Scrophularia nodosa</i> -     | - | 1   | 2 | 3   | 4   | 5   | 6   | 7   | 8   | 9  | 10   | 11   | 12   | 209 |
| „ <i>aquatica</i> -              | - | 1   | 2 |     | 4   | 5   |     | 8   | 9   |    |      | 12   | 209  |     |
| <i>Melampyrum pratense</i> -     | - | 1   | 2 |     | 4   | 5   | 6   | 7   | 8   | 9  | 10   | 11   | 12   | 210 |
| „ <i>sylvaticum</i> -            | - |     |   |     |     |     |     |     |     |    |      | 12   | 210  |     |

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| <i>Pedicularis palustris</i> -    | - | 1   | 2   | 3 | 4   | 5 | 6 | 7 | 8 | 9  | 10 | 11 | 12   | 211 |
| „ <i>sylvatica</i> -              | - | 1   | 2   | 3 | 4   | 5 | 6 | 7 | 8 | 9  | 10 |    | 12   | 211 |
| <i>Rhinanthus Crista-galli</i> -  | - | 1   | 2   | 3 | 4   | 5 | 6 | 7 | 8 | 9  |    | 11 | 12   | 211 |
| <i>Eufragia viscosa</i> -         | - | 1   | 2   |   |     |   |   |   |   |    |    |    |      | 211 |
| <i>Euphrasia officinalis</i> -    | - | 1   | 2   | 3 | 4   | 5 | 6 | 7 | 8 | 9  | 10 | 11 | 12   | 212 |
| „ <i>Odontites</i> -              | - | 1   | 2   | 3 | 4   | 5 | 6 | 7 | 8 | 9  | 10 | 11 | 12   | 212 |
| <i>Sibthorpia europæa</i> -       | - | 1   |     |   |     |   |   |   |   |    |    |    |      | 212 |
| <i>Veronica scutellata</i> -      | - | 1   | 2   |   | 4   | 5 | 6 | 7 | 8 | 9  | 10 | 11 | 12   | 213 |
| „ <i>Anagallis</i> -              | - | 1   | 2   | 3 | 4   | 5 | 6 | 7 | 8 | 9  | 10 | 11 | 12   | 213 |
| „ <i>Beccabunga</i> -             | - | 1   | 2   | 3 | 4   | 5 | 6 | 7 | 8 | 9  | 10 | 11 | 12   | 213 |
| „ <i>Chamædrys</i> -              | - | 1   | 2   | 3 | 4   | 5 | 6 | 7 | 8 | 9  | 10 | 11 | 12   | 213 |
| „ <i>montana</i> -                | - | 1   | 2   |   | 4   | 5 |   | 7 | 8 | 9  | 10 | 11 | 12   | 213 |
| „ <i>officinalis</i> -            | - | 1   | 2   | 3 | 4   | 5 | 6 | 7 | 8 | 9  |    | 11 | 12   | 214 |
| „ <i>serpyllifolia</i> -          | - | 1   | 2   | 3 | 4   | 5 | 6 | 7 | 8 | 9  | 10 | 11 | 12   | 214 |
| „ <i>arvensis</i> -               | - | 1   | 2   | 3 | 4   | 5 | 6 | 7 | 8 | 9  | 10 | 11 | 12   | 214 |
| * „ <i>peregrina</i> -            | - |     |     |   |     | 6 |   |   |   | 10 |    | 12 |      | 215 |
| „ <i>agrestis</i> -               | - | 1   | 2   | 3 | 4   | 5 | 6 | 7 | 8 | 9  | 10 | 11 | 12   | 215 |
| „ <i>polita</i> -                 | - | 1   | 2   | 3 | 4   | 5 | 6 | 7 | 8 | 9  | 10 | 11 | 12   | 215 |
| * „ <i>Buxbaumii</i> -            | - | 1   | 2   |   | 4   | 5 | 6 |   |   | 10 |    | 12 |      | 215 |
| „ <i>hederifolia</i> -            | - | 1   | 2   | 3 | 4   | 5 | 6 |   |   | 10 | 11 | 12 |      | 216 |
| ‡ <i>Mentha rotundifolia</i> -    | - | 1   | 2   |   | 4   | 5 |   | 8 |   |    |    | 12 |      | 216 |
| „ <i>piperita</i> -               | - | 1   | (2) |   | (5) |   |   | 8 |   |    |    | 12 |      | 217 |
| „ <i>aquatica</i> -               | - | 1   | 2   | 3 | 4   | 5 | 6 | 7 | 8 | 9  | 10 | 11 | 12   | 218 |
| „ <i>sativa</i> -                 | - | 1   | 2   | 3 | 4   | 5 |   | 8 | 9 | 10 |    | 12 |      | 218 |
| „ <i>arvensis</i> -               | - | 1   | 2   |   | 4   | 5 | 6 | 7 | 8 | 9  |    | 12 |      | 219 |
| „ <i>Pulegium</i> -               | - | 1   | 2   |   | 4   | 6 |   |   |   |    |    | 12 |      | 219 |
| <i>Lycopus europæus</i> -         | - | 1   | 2   | 3 | 4   | 5 | 6 | 8 | 9 | 10 | 11 | 12 |      | 220 |
| <i>Salvia Verbenaca</i> -         | - |     | 2   | 3 | 4   | 5 | 6 |   |   |    |    |    |      | 220 |
| <i>Origanum vulgare</i> -         | - | 1   | 2   | 3 | 4   | 5 | 6 | 7 |   | 10 |    | 12 |      | 220 |
| <i>Thymus Serpyllum</i> -         | - | 1   | 2   | 3 | 4   | 5 | 6 | 7 | 8 | 9  | 10 | 11 | 12   | 221 |
| <i>Calamintha officinalis</i> -   | - | 1   | 2   | 3 | 4   | 5 | 6 |   | 8 | 9  |    | 11 |      | 221 |
| „ <i>Nepeta</i> -                 | - | 1   |     |   |     |   |   |   |   |    |    |    |      | 222 |
| „ <i>Acinos</i> -                 | - |     |     |   | 4   | 5 |   |   |   |    |    |    |      | 222 |
| „ <i>Clinopodium</i> -            | - | 1   |     | 3 | 4   | 5 |   |   |   |    | 11 |    |      | 222 |
| <i>Scutellaria galericulata</i> - | - | 1   | 2   | 3 | 4   | 5 | 6 | 7 | 8 | 9  | 10 |    | 12   | 223 |
| „ <i>minor</i> -                  | - | 1   | 2   | 3 | 4   |   | 6 |   | 8 | 9  |    |    |      | 223 |
| <i>Prunella vulgaris</i> -        | - | 1   | 2   | 3 | 4   | 5 | 6 | 7 | 8 | 9  | 10 | 11 | 12   | 223 |
| † <i>Nepeta Cataria</i> -         | - | 1   | 2   | 3 |     | 5 | 6 |   | 8 | 9  |    | 12 |      | 223 |
| „ <i>Glechoma</i> -               | - | 1   | 2   | 3 | 4   | 5 | 6 | 7 | 8 | 9  | 10 | 11 | 12   | 224 |
| <i>Lamium amplexicaule</i> -      | - | 1   | 2   | 3 | 4   | 5 |   |   |   |    |    | 12 |      | 224 |
| „ <i>intermedium</i> -            | - |     |     |   |     |   |   |   | 9 |    |    | 12 |      | 225 |
| „ <i>incisum</i> -                | - | 1   | 2   | 3 | 4   | 5 | 6 |   | 8 | 9  | 10 | 12 |      | 225 |
| „ <i>purpureum</i> -              | - | 1   | 2   | 3 | 4   | 5 | 6 | 7 | 8 | 9  | 10 | 11 | 12   | 225 |
| „ <i>album</i> -                  | - | (1) |     | 3 | 4   | 5 |   | 7 |   | 9  | 10 |    | 12   | 225 |
| „ <i>Galeobdolon</i> -            | - |     |     |   | 4   | 5 |   | 7 |   |    |    |    | ?    | 226 |
| <i>Galeopsis Ladanum</i> -        | - |     |     | 3 | 4   | 5 |   |   |   |    |    |    |      | 227 |
| „ <i>Tetrahit</i> -               | - | 1   | 2   | 3 | 4   | 5 | 6 | 7 | 8 | 9  | 10 | 11 | 12   | 227 |
| „ <i>versicolor</i> -             | - | ?   |     | 3 |     | 5 |   |   | 8 | 9  | 10 | 11 | 12   | 227 |
| <i>Stachys Betonica</i> -         | - | 1   | 2   | 3 |     | 5 | 6 |   |   |    | 10 | 12 |      | 228 |
| „ <i>sylvatica</i> -              | - | 1   | 2   | 3 | 4   | 5 | 6 | 7 | 8 | 9  | 10 | 11 | 12   | 229 |
| „ <i>palustris</i> -              | - | 1   | 2   | 3 | 4   | 5 | 6 | 7 | 8 | 9  | 10 | 11 | 12   | 229 |



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| Rumex conglomeratus -    | 1   | 2   | 3 | 4   | 5   | 6   | 7   | 8   | 9   | 10   | 11 | 12 | 251  |
| „ sanguineus -           | 1   | 2   | 3 | 4   | 5   | 6   | 7   | 8   | 9   | 10   | 11 | 12 | 251  |
| † „ pulcher -            | -   | -   | - | -   | 5   | -   | -   | -   | -   | -    | -  | -  | 251  |
| „ obtusifolius -         | 1   | 2   | 3 | 4   | 5   | 6   | 7   | 8   | 9   | 10   | 11 | 12 | 251  |
| „ crispus -              | 1   | 2   | 3 | 4   | 5   | 6   | 7   | 8   | 9   | 10   | 11 | 12 | 252  |
| „ Hydrolapathum -        | 1   | 2   |   | 4   | 5   | 6   |     | 8   |     | 10   |    | 12 | 252  |
| „ Acetosa -              | 1   | 2   | 3 | 4   | 5   | 6   | 7   | 8   | 9   | 10   | 11 | 12 | 253  |
| „ Acetosella -           | 1   | 2   | 3 | 4   | 5   | 6   | 7   | 8   | 9   | 10   | 11 | 12 | 253  |
| Oxyria reniformis -      | 1   | 2   |   |     |     |     |     | 8   | 9   |      |    |    | 253  |
| † Polygonum Bistorta -   | 1   | 2   | 3 |     | 5   | 6   |     |     | 9   | 10   |    | 12 | 254  |
| „ viviparum -            | -   | -   | - | -   | -   | -   | -   | -   | 9   | -    | -  | -  | 254  |
| „ amphibium -            | 1   | 2   | 3 | 4   | 5   | 6   | 7   | 8   | 9   | 10   | 11 | 12 | 255  |
| „ lapathifolium -        | 1   | 2   |   | 4   | 5   |     |     | 8   | 9   |      | 11 | 12 | 255  |
| „ Persicaria -           | 1   | 2   | 3 | 4   | 5   | 6   | 7   | 8   | 9   | 10   | 11 | 12 | 255  |
| „ Hydropiper -           | 1   | 2   | 3 | 4   | 5   | 6   | 7   | 8   | 9   | 10   | 11 | 12 | 255  |
| „ minus -                | 1   | 2   | 3 | 4   | 5   | 6   |     | 8   | 9   |      | 11 | 12 | 256  |
| „ aviculare -            | 1   | 2   | 3 | 4   | 5   | 6   | 7   | 8   | 9   | 10   | 11 | 12 | 256  |
| „ Raii -                 | 1   | 2   |   | 4   | 5   | 6   |     | 8   |     |      | 11 | 12 | 257  |
| „ Convolvulus -          | 1   | 2   | 3 | 4   | 5   | 6   | 7   | 8   | 9   | 10   | 11 | 12 | 257  |
| Empetrum nigrum -        | 1   | 2   |   | 4   | 5   |     |     | 8   | 9   |      | 11 | 12 | 258  |
| Euphorbia Peplis -       | -   | 2   |   |     |     |     |     |     |     |      |    |    | 258  |
| „ helioscopia -          | 1   | 2   | 3 | 4   | 5   | 6   | 7   | 8   | 9   | 10   | 11 | 12 | 258  |
| „ hyberna -              | 1   | 2   |   |     |     | 6   |     |     | ?   |      | ?  | ?  | 258  |
| „ amygdaloides -         | 1   |     |   |     |     |     |     |     |     |      |    |    | 259  |
| „ Paralias -             | 1   | 2   |   | 4   | 5   | 6   |     |     |     |      |    | 12 | 260  |
| „ portlandica -          | 1   | 2   |   | 4   | 5   |     |     |     |     |      | 11 | 12 | 260  |
| „ Peplus -               | 1   | 2   | 3 | 4   | 5   | 6   | 7   | 8   | 9   | 10   | 11 | 12 | 261  |
| „ exigua -               | 1   | 2   | 3 | 4   | 5   | 6   | 7   |     |     |      |    | 12 | 261  |
| Mercurialis perennis -   | -   | -   | - | -   | 5   | 6   | 7   |     | 9   | 10   |    | 12 | 261  |
| † „ annua -              | 1   | 2   | 3 |     | 5   |     |     |     |     |      |    |    | 262  |
| Ceratophyllum demersum - | 1   | 2   |   |     | 5   |     |     | ?   |     |      |    | 12 | 262  |
| Callitriche verna -      | 1   | 2   | 3 | 4   | 5   | 6   | 7   | 8   | 9   | 10   | 11 | 12 | 263  |
| „ hamulata -             | 1   | 2   |   |     |     |     |     | 8   |     |      |    | 12 | 263  |
| „ autumnalis -           | -   | -   | - | -   | -   | -   | -   | 8   |     |      | 11 | 12 | 264  |
| Parietaria diffusa -     | 1   | 2   | 3 | 4   | 5   | 6   | 7   | 8   | 9   | 10   | 11 | 12 | 264  |
| Urtica urens, -          | 1   | 2   | 3 | 4   | 5   | 6   | 7   | 8   | 9   | 10   | 11 | 12 | 264  |
| „ dioica -               | 1   | 2   | 3 | 4   | 5   | 6   | 7   | 8   | 9   | 10   | 11 | 12 | 265  |
| *Humulus Lupulus -       | 1   | 2   | 3 | 4   | 5   | 6   | 7   |     | 9   |      | 11 | 12 | 265  |
| *Ulmus suberosa -        | 1   | 2   | 3 | 4   | 5   | 6   | 7   | 8   | 9   | 10   | 11 | 12 | 266  |
| † „ montana -            | (1) | (2) |   | (4) | (5) | (6) | (7) | (8) | (9) | (10) |    |    | 266  |
| Salix pentandra -        | -   | (2) |   |     |     | 6   |     | 8   | 9   | 10   | 11 | 12 | 267  |
| † „ fragilis -           | 1   | 2   | 3 | 4   | 5   |     |     |     |     |      | 11 | 12 | 267  |
| † „ alba -               | 1   | 2   | 3 | 4   | 5   |     |     |     |     |      | 11 | 12 | 268  |
| * „ undulata -           | -   | -   | - | -   | -   | -   | -   | -   | -   | -    |    | 12 | 268  |
| † „ triandra -           | 1   | 2   |   |     |     |     |     | (8) |     | 10   |    | 12 | 268  |
| † „ purpurea -           | 1   | 2   |   |     |     |     |     | 8   |     | 10   | 11 | 12 | 268  |
| † „ rubra -              | -   | (2) |   |     |     |     |     |     |     |      | 11 | 12 | 269  |
| † „ viminalis -          | 1   | 2   | 3 | 4   | 5   | 6   | 7   | 8   | 9   | 10   | 11 | 12 | 269  |
| † „ Smithiana -          | 1   | 2   |   | 4   | 5   |     |     |     |     |      |    | 12 | 270  |
| † „ acuminata -          | 1   | 2   |   | 4   |     |     |     |     |     |      |    | 12 | 270  |
| „ cinerea -              | 1   | 2   | 3 | 4   | 5   | 6   | 7   | 8   | 9   | 10   | 11 | 12 | 270  |



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| <i>Salix aurita</i> - - -          | 1   | 2   |   | 4   | 5   |     |     | 8 | 9  | 10   | 11 | 12   | 271  |
| „ <i>caprea</i> - - -              | 1   | 2   |   | 4   | 5   | 6   |     | 8 | 9  |      | 11 | 12   | 271  |
| „ <i>nigricans</i> - - -           | ?   |     |   |     |     |     |     |   |    |      |    | 12   | 271  |
| † „ <i>laurina</i> - - -           | ?   |     |   |     |     |     |     |   |    |      |    | 12   | 271  |
| „ <i>phylicifolia</i> - - -        |     |     |   |     |     |     |     |   |    |      |    | 12   | 272  |
| „ <i>repens</i> - - -              | 1   | 2   |   | 4   | 5   | 6   |     | 8 | 9  |      | 11 | 12   | 272  |
| „ <i>ambigua</i> - - -             |     |     |   |     |     |     |     |   | 9  |      |    |      | 272  |
| „ <i>procumbens</i> -              |     |     |   |     |     |     |     |   | 9  |      |    |      | 272  |
| „ <i>herbacea</i> - - -            | 1   | 2   |   | 4   |     |     |     | 8 |    | 10   | 11 | 12   | 273  |
| <i>Populus tremula</i> - - -       | 1   |     |   | 4   | 5   | 6   |     | 8 | 9  | 10   | 11 | 12   | 273  |
| <i>Myrica Gale</i> - - -           | 1   | 2   | 3 | 4   | 5   | 6   | 7   | 8 | 9  | 10   | 11 | 12   | 274  |
| <i>Betula alba</i> - - -           | 1   | 2   | 3 | 4   | 5   | 6   | 7   | 8 | 9  | 10   | 11 | 12   | 274  |
| <i>Alnus glutinosa</i> - - -       | 1   | 2   | 3 | 4   | 5   | 6   | 7   | 8 | 9  | 10   | 11 | 12   | 274  |
| <i>Quercus Robur</i> - - -         | 1   | 2   | 3 | 4   | 5   | 6   | 7   | 8 | 9  | 10   | 11 | 12   | 274  |
| <i>Corylus Avellana</i> - - -      | 1   | 2   | 3 | 4   | 5   | 6   | 7   | 8 | 9  | 10   | 11 | 12   | 275  |
| <i>Taxus baccata</i> - - -         | 1   | 2   |   | (4) | (5) | 6   |     | 8 |    | 10   | 11 | 12   | 275  |
| <i>Juniperus communis</i> - - -    | 1   |     |   | 4   |     | 6   |     | 8 |    |      | 11 | 12   | 276  |
| <i>Pinus sylvestris</i> - - -      | [1] | ?   |   |     |     |     |     | 8 |    | (10) |    |      | 276  |
| <i>Hydrocharis Morsus-ranæ</i>     |     |     |   |     | 5   | 6   | 7   | ? |    | 10   |    | 12   | 278  |
| ‡ <i>Stratiotes aloides</i> - - -  | (1) |     |   |     | ?   | ?   |     |   |    | 10   |    | (12) | 278  |
| * <i>Anacharis Alsinastrum</i>     | 1   | 2   | 3 |     | 5   | 6   | 7   |   |    |      |    | 12   | 279  |
| <i>Orchis Morio</i> - - -          |     |     |   | 3   | 4   | 5   | 6   | 7 | 8  | 9    |    |      | 280  |
| „ <i>mascula</i> - - -             | 1   | 2   | 3 | 4   | 5   | 6   | 7   | 8 | 9  | 10   | 11 | 12   | 280  |
| „ <i>maculata</i> - - -            | 1   | 2   | 3 | 4   | 5   | 6   | 7   | 8 | 9  | 10   | 11 | 12   | 281  |
| „ <i>latifolia</i> - - -           | 1   | 2   | 3 | 4   | 5   | 6   | 7   | 8 | 9  | 10   | 11 | 12   | 281  |
| „ <i>pyramidalis</i> - - -         |     | 2   | 3 | 4   | 5   | 6   | 7   | 8 | 9  | 10   |    | 12   | 281  |
| <i>Gymnadenia conopsea</i> - - -   | ?   | 2   | 3 | 4   | 5   | 6   | 7   | 8 | 9  |      | 11 | 12   | 282  |
| „ <i>albida</i> - - -              | 1   | 2   | 3 | 4   |     | 6   |     | 8 | 9  | 10   | 11 | 12   | 282  |
| <i>Neotinea intacta</i> - - -      |     |     |   |     |     | 6   |     |   |    |      |    |      | 283  |
| <i>Habenaria viridis</i> - - -     | 1   | 2   | 3 | 4   | 5   | 6   | 7   |   | 9  |      | 11 | 12   | 283  |
| „ <i>bifolia</i> - - -             | 1   | 2   | 3 | 4   | 5   | 6   | 7   | 8 | 9  |      | 11 | 12   | 284  |
| „ <i>chlorantha</i> - - -          | 1   |     |   | 4   | 5   | 6   |     | 8 | 9  |      | 11 | 12   | 284  |
| <i>Ophrys apifera</i> - - -        | 1   | 2   | 3 | 4   | 5   | 6   | 7   | 8 | 9  |      |    |      | 284  |
| „ <i>muscifera</i> - - -           |     |     | 3 |     | 5   | 6   | 7   | 8 |    |      |    |      | 285  |
| <i>Spiranthes autumnalis</i> - - - | 1   | 2   |   | 4   | 5   | 6   | 7   |   | 9  |      |    |      | 285  |
| „ <i>gemmipara</i> - - -           | 1   |     |   |     |     |     |     |   |    |      |    |      | 286  |
| <i>Listera ovata</i> - - -         | 1   | 2   | 3 | 4   | 5   | 6   | 7   | 8 | 9  | 10   | 11 | 12   | 286  |
| „ <i>cordata</i> - - -             |     |     | ? | 4   |     |     |     | 8 |    |      | 11 | 12   | 286  |
| <i>Neottia Nidus-avis</i> - - -    |     |     |   | 4   | 5   |     |     |   |    | 10   |    | 12   | 287  |
| <i>Epipactis latifolia</i> - - -   | ?   | 2   | 3 | 4   | 5   | 6   |     |   |    | 10   |    | 12   | 287  |
| „ <i>media</i> - - -               | 1   |     |   |     | 5   |     |     |   |    |      |    | 12   | 288  |
| „ <i>ovalis</i> - - -              |     |     |   |     |     | 6   |     |   |    |      |    |      | 288  |
| „ <i>palustris</i> - - -           |     |     | 3 | 4   | 5   | 6   |     | 9 | 10 | 11   | 12 |      | 288  |
| <i>Cephalanthera ensifolia</i>     | 1   |     |   |     |     |     |     |   |    |      | 11 | 12   | 289  |
| <i>Malaxis paludosa</i> - - -      | 1   |     |   | 4   | 5   | 6   |     |   |    |      |    | 12   | 290  |
| <i>Sisyrinchium anceps</i>         |     |     |   |     |     | 6   |     |   |    |      |    |      | 291  |
| <i>Iris Pseud-acorus</i> - - -     | 1   | 2   | 3 | 4   | 5   | 6   | 7   | 8 | 9  | 10   | 11 | 12   | 292  |
| † „ <i>foetidissima</i> - - -      | 1   | (2) | 3 | 4   | 5   | (6) | (7) |   |    | 10   |    | 12   | 292  |
| † <i>Narcissus biflorus</i> - - -  | ?   | ?   | 3 |     | 5   | 6   |     |   |    |      |    |      | 293  |
| <i>Asparagus officinalis</i> - - - |     | 2   |   | 4   |     |     |     |   |    |      |    |      | 294  |
| <i>Scilla verna</i> - - -          |     |     |   | 4   | 5   |     |     |   |    |      |    | 12   | 295  |

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| ‡ <i>Allium Babingtonii</i>      |   |   |   |   |     | 6 |   | 8 |   |    |    |      | 295  |     |
| „ <i>Scorodoprasum</i>           | 1 | 2 |   |   |     |   |   |   |   |    |    |      | 296  |     |
| „ <i>vineale</i> -               | - | 2 | 3 | 4 | 5   |   |   |   |   |    |    |      | 296  |     |
| „ <i>ursinum</i>                 | 1 | 2 | 3 | 4 | 5   | 6 | 7 | 8 | 9 | 10 |    |      | 297  |     |
| <i>Simethis bicolor</i>          | 1 |   |   |   |     |   |   |   |   |    |    |      | 297  |     |
| <i>Endymion nutans</i>           | - | 1 | 2 | 3 | 4   | 5 | 6 | 7 | 8 | 9  | 10 | 11   | 12   | 297 |
| <i>Colchicum autumnale</i> -     |   |   | 3 |   | 5   | 6 |   |   |   |    |    | (12) | 298  |     |
| <i>Eriocaulon septangulare</i>   | - | 1 |   |   |     |   |   | 8 |   |    | 11 | 12   | 298  |     |
| <i>Narthecium ossifragum</i>     | 1 | 2 | 3 | 4 | 5   | 6 | 7 | 8 | 9 | 10 | 11 | 12   | 299  |     |
| <i>Juncus maritimus</i> -        | 1 | 2 |   | 4 | 5   | 6 |   | 8 | 9 |    | 11 | 12   | 299  |     |
| „ <i>acutus</i> -                | - | 1 | 2 | 4 |     |   |   |   |   |    |    |      | 299  |     |
| „ <i>effusus</i> -               | - | 1 | 2 | 3 | 4   | 5 | 6 | 7 | 8 | 9  | 10 | 11   | 12   | 300 |
| „ <i>conglomeratus</i> -         | 1 | 2 | 3 | 4 | 5   | 6 | 7 | 8 | 9 | 10 | 11 | 12   | 300  |     |
| „ <i>glaucus</i> -               | 1 | 2 | 3 | 4 | 5   | 6 |   |   | 9 | 10 | 11 | 12   | 300  |     |
| „ <i>obtusiflorus</i> -          | 1 |   |   | 4 |     |   |   |   |   |    |    | 12   | 301  |     |
| „ <i>acutiflorus</i> -           | 1 | 2 | 3 | 4 | 5   | 6 | 7 | 8 | 9 | 10 | 11 | 12   | 301  |     |
| „ <i>lamprocarpus</i> -          | - | 1 | 2 | 3 | 4   | 5 | 6 | 7 | 8 | 9  | 10 | 11   | 12   | 301 |
| „ <i>supinus</i> -               | - | 1 | 2 | 3 | 4   | 5 | 6 | 7 | 8 | 9  | 10 | 11   | 12   | 301 |
| „ <i>squarrosus</i>              | 1 | 2 | 3 | 4 | 5   | 6 | 7 | 8 | 9 |    | 11 | 12   | 302  |     |
| „ <i>compressus</i> -            | - | 1 | 2 | 3 | 4   | 5 | 6 |   | 8 | 9  |    | 11   | 12   | 302 |
| „ <i>bufonius</i>                | 1 | 2 | 3 | 4 | 5   | 6 | 7 | 8 | 9 | 10 | 11 | 12   | 302  |     |
| <i>Luzula sylvatica</i> -        | - | 1 | 2 | 3 | 4   | 5 | 6 | 7 | 8 | 9  | 10 | 11   | 12   | 302 |
| „ <i>pilosa</i> -                | 1 | 2 |   | 4 | 5   |   |   |   |   | 10 |    | 12   | 303  |     |
| „ <i>campestris</i>              | 1 | 2 | 3 | 4 | 5   | 6 | 7 | 8 | 9 | 10 | 11 | 12   | 303  |     |
| „ <i>multiflora</i> -            | 1 | 2 | 3 | 4 | 5   | 6 | 7 | 8 | 9 | 10 | 11 | 12   | 303  |     |
| <i>Alisma Plantago</i> -         | 1 | 2 | 3 | 4 | 5   | 6 | 7 | 8 | 9 | 10 | 11 | 12   | 303  |     |
| „ <i>ranunculoides</i> -         | 1 | 2 | 3 | 4 | 5   | 6 | 7 | 8 | 9 | 10 | 11 | 12   | 304  |     |
| „ <i>natans</i> -                | 1 |   |   |   | ?   | 6 |   | 8 |   |    |    |      | 304  |     |
| <i>Sagittaria sagittifolia</i> - |   |   |   |   | (5) | 6 | 7 |   | 9 | 10 |    | 12   | 304  |     |
| <i>Butomus umbellatus</i>        |   | 2 |   |   | 5   | 6 | 7 |   |   | 10 |    | 12   | 305  |     |
| <i>Triglochin maritimum</i> -    | 1 | 2 | 3 | 4 | 5   | 6 |   | 8 | 9 |    | 11 | 12   | 306  |     |
| „ <i>palustre</i> -              | 1 | 2 | 3 | 4 | 5   | 6 | 7 | 8 | 9 | 10 | 11 | 12   | 306  |     |
| <i>Typha latifolia</i> -         | 1 | 2 |   | 4 | 5   |   | 7 | 8 | 9 | 10 | 11 | 12   | 306  |     |
| „ <i>angustifolia</i>            | - |   |   | 5 |     |   |   |   |   |    |    | 12   | 306  |     |
| <i>Sparganium ramosum</i> -      | 1 | 2 | 3 | 4 | 5   | 6 | 7 | 8 | 9 | 10 | 11 | 12   | 307  |     |
| „ <i>simplex</i> -               | 1 | 2 |   | 4 | 5   |   |   | 8 | 9 | 10 | 11 | 12   | 307  |     |
| „ <i>natans</i>                  | - |   |   |   |     |   |   | 8 |   |    | 11 | 12   | 307  |     |
| „ <i>minimum</i> -               | - | 1 | 2 | 4 | 5   | 6 |   |   |   | ?  | 11 | 12   | 308  |     |
| <i>Arum maculatum</i>            | 1 | 2 | 3 | 4 | 5   | 6 | 7 | 8 | 9 | 10 | 11 | 12   | 308  |     |
| <i>Lemna trisulca</i> -          |   | 2 |   | 4 | 5   | 6 |   |   | 9 |    |    | 12   | 308  |     |
| „ <i>minor</i> -                 | 1 | 2 | 3 | 4 | 5   | 6 | 7 | 8 | 9 | 10 | 11 | 12   | 309  |     |
| „ <i>polyrrhiza</i> -            |   |   |   | 5 | 6   | 7 |   |   |   |    |    |      | 309  |     |
| „ <i>gibba</i>                   | - |   |   | 5 | 6   |   |   |   |   |    |    | 12   | 309  |     |
| <i>Potamogeton natans</i> -      | - | 1 | 2 | 3 | 4   | 5 | 6 | 7 | 8 | 9  | 10 | 11   | 12   | 310 |
| „ <i>polygonifolius</i> -        | 1 | 2 | 3 | 4 | 5   | 6 | 7 | 8 | 9 |    | 11 | 12   | 310  |     |
| „ <i>plantagineus</i>            | 1 | 2 |   | 4 | 5   | 6 | 7 | 8 | 9 |    |    | 12   | 310  |     |
| „ <i>rufescens</i> -             | 1 | 2 |   | 4 |     | 6 | 7 | 8 |   | 10 | 11 | 12   | 311  |     |
| „ <i>lanceolatus</i> -           | 1 |   |   |   |     |   |   | 8 |   |    |    | 12   | 311  |     |
| „ <i>heterophyllus</i> -         | 1 | 2 | 3 | 4 | 5   |   |   | 8 | 9 | 10 |    | 12   | 312  |     |
| „ <i>lucens</i> -                | - | 1 | 3 | 4 | 5   |   |   | 8 | 9 | 10 | 11 | 12   | 312  |     |
| „ <i>prælongus</i> -             | 1 |   |   |   |     | 6 |   | 8 | 9 |    |    | 12   | 312  |     |

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| <i>Potamogeton nitens</i>     | - | 1 |   |   |   |   |   |   |   |    |    | 12 | 312  |
| „ <i>perfoliatus</i>          | - | 1 | 2 | 4 | 5 | 6 |   | 8 | 9 | 10 | 11 | 12 | 313  |
| „ <i>crispus</i>              | - | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9  | 10 | 12 | 313  |
| „ <i>zosterifolius</i>        |   |   |   |   |   |   |   |   |   |    |    | 12 | 313  |
| „ <i>gramineus</i>            |   | 1 | 2 |   |   |   |   |   |   | 10 | 11 | 12 | 313  |
| „ <i>pusillus</i>             |   | 1 | 2 | 3 | 4 | 5 |   | 8 | 9 |    |    | 12 | 314  |
| „ <i>pectinatus</i>           | - | 1 | 2 |   | 4 | 5 |   | 7 | 8 | 9  |    | 11 | 314  |
| „ <i>filiformis</i>           | - |   |   |   |   |   |   | 8 |   |    |    |    | 315  |
| „ <i>densus</i>               | - | 1 | 2 | 3 | 4 | 5 | 6 |   |   |    |    |    | 315  |
| <i>Ruppia maritima</i>        | - | 1 | 2 |   | 4 | 5 | 6 |   |   |    | 11 | 12 | 315  |
| <i>Zannichellia palustris</i> | - | 1 | 2 |   | 4 | 5 |   | 7 | 8 | 9  | 10 | 12 | 316  |
| <i>Zostera marina</i>         |   | 1 | 2 |   | 4 | 5 | 6 |   | 8 | 9  |    | 11 | 316  |
| „ <i>nana</i>                 | - |   |   |   |   | 5 |   |   |   |    |    |    | 316  |
| <i>Najas flexilis</i>         | - |   |   |   |   |   |   | 8 |   |    |    |    | 317  |
| <i>Schœnus nigricans</i>      |   | 1 | 2 |   | 4 | 5 | 6 | 7 | 8 | 9  | 10 | 11 | 317  |
| <i>Cladium Mariscus</i>       | - | 1 | 2 |   | 4 | 5 | 6 |   | 8 | 9  | 10 | 11 | 317  |
| <i>Rhynchospora alba</i>      | - | 1 | 2 |   | 4 | 5 | 6 | 7 | 8 | 9  | 10 | 11 | 318  |
| „ <i>fusca</i>                | - | 1 |   |   |   | 6 |   | 8 | 9 |    |    |    | 318  |
| <i>Eleocharis palustris</i>   | - | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9  | 10 | 11 | 319  |
| „ <i>uniglumis</i>            | - |   |   |   | 4 |   |   |   |   |    |    |    | 319  |
| „ <i>multicaulis</i>          | - | 1 | 2 | 3 | 4 |   | 6 | 8 | 9 |    | 11 | 12 | 319  |
| „ <i>acicularis</i>           | - |   |   |   |   | 6 | 7 | ? |   | 10 |    |    | 319  |
| <i>Scirpus maritimus</i>      |   | 1 | 2 | 3 | 4 | 5 | 6 | 8 | 9 |    | 11 | 12 | 320  |
| „ <i>sylvaticus</i>           |   | 1 | 2 |   |   | 6 |   |   |   | 10 | 11 | 12 | 320  |
| „ <i>lacustris</i>            | - | 1 | 2 |   | 4 | 5 | 6 |   | 8 | 9  | 10 | 11 | 320  |
| „ <i>Tabernœmontani</i>       | - | 1 | 2 |   | 4 | 5 | 6 | 8 |   |    | 11 | 12 | 321  |
| „ <i>cœspitosus</i>           |   | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9  | 10 | 11 | 321  |
| „ <i>pauciflorus</i>          | - |   |   |   |   | ? | 6 |   | 8 | 9  |    | 11 | 321  |
| „ <i>frutans</i>              | - | 1 | 2 |   | 4 | 5 |   |   | 8 | 9  |    | 11 | 321  |
| „ <i>setaceus</i>             |   | 1 | 2 |   | 4 | 5 |   |   | 8 | 9  |    | 11 | 321  |
| „ <i>Savii</i>                | - | 1 |   |   | 4 | 5 |   |   | 8 | 9  |    | 11 | 322  |
| <i>Blysmus rufus</i>          | - |   |   |   | 5 |   |   | 8 |   |    |    | 11 | 322  |
| <i>Eriophorum vaginatum</i>   | - | 1 | 2 |   | 4 | 5 | 6 | 7 | 8 | 9  | 10 | 11 | 322  |
| „ <i>angustifolium</i>        | - | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9  | 10 | 11 | 322  |
| „ <i>latifolium</i>           | - |   |   |   | 4 |   | 6 |   |   |    |    | 12 | 323  |
| <i>Carex dioica</i>           | - | 1 |   |   | 4 | 5 | 6 | 7 | 8 | 9  |    | 11 | 323  |
| „ <i>pulicaris</i>            |   | 1 | 2 |   | 4 | 5 | 6 |   | 8 | 9  |    | 11 | 323  |
| „ <i>disticha</i>             |   | 1 | 2 | 3 | 4 | 5 | 6 |   | 8 | 9  | 10 | 11 | 324  |
| „ <i>arenaria</i>             | - | 1 | 2 |   | 4 | 5 |   |   | 8 | 9  |    | 11 | 324  |
| „ <i>divisa</i>               | - |   |   |   | 5 |   |   |   |   |    |    |    | 324  |
| „ <i>vulpina</i>              | - | 1 | 2 | 3 | 4 | 5 |   |   |   |    | 11 | 12 | 324  |
| „ <i>muricata</i>             | - | 1 | 2 |   | 4 | 5 |   | 8 |   |    |    |    | 324  |
| „ <i>divulsa</i>              | - | 1 | 2 |   | 4 | 5 |   |   |   |    |    |    | 325  |
| „ <i>teretiuscula</i>         |   | 1 |   |   |   |   | 6 | 7 | 9 |    |    | 12 | 325  |
| „ <i>paradoxa</i>             | - |   |   |   |   |   | 7 |   |   |    |    |    | 326  |
| „ <i>paniculata</i>           | - | 1 | 2 |   | 4 | 5 | 6 | 7 | 8 |    | 11 | 12 | 326  |
| „ <i>axillaris</i>            |   | 1 | ? |   | 4 |   |   |   |   |    |    |    | 326  |
| „ <i>remota</i>               | - | 1 | 2 |   | 4 | 5 |   | 8 | 9 | 10 | 11 | 12 | 326  |
| „ <i>stellulata</i>           | - | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9  | 10 | 11 | 327  |
| „ <i>elongata</i>             | - |   |   |   |   |   |   |   |   |    |    | 12 | 327  |
| „ <i>curta</i>                | - | 1 | 2 | 3 | 4 | 5 |   | 8 |   | 10 | 11 | 12 | 327  |

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|-------------------------------|---|---|---|---|---|---|---|---|----|----|----|----|------|
| <i>Carex ovalis</i> - -       | 1 | 2 | 3 | 4 | 5 |   |   | 8 | 9  | 10 | 11 | 12 | 328  |
| „ <i>stricta</i>              | 1 | 2 |   | 4 | 5 | 6 | 7 | 8 | 9  | 10 | 11 | 12 | 328  |
| „ <i>acuta</i> -              | 1 |   |   | 5 | 6 |   |   |   |    |    | 11 | 12 | 328  |
| „ <i>rigida</i>               | 1 | 2 |   |   |   |   |   | 8 |    |    | 11 |    | 328  |
| „ <i>vulgaris</i> -           | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9  | 10 | 11 | 12 | 329  |
| „ <i>Buxbaumii</i>            |   |   |   |   |   |   |   |   |    |    |    | 12 | 329  |
| „ <i>pallescens</i> -         | 1 |   | ? | 4 | ? |   |   | 9 | 10 | 11 | 12 |    | 329  |
| „ <i>panicea</i>              | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9  | 10 | 11 | 12 | 330  |
| „ <i>limosa</i>               | 1 |   |   |   | ? | 6 | 7 | 8 | 9  |    | 11 | 12 | 330  |
| „ <i>strigosa</i> - -         |   | ? | 3 | 4 | 5 |   |   |   |    | 11 | 12 |    | 331  |
| „ <i>pendula</i>              |   | 2 |   | 4 | 5 |   |   |   | 10 |    | 12 |    | 331  |
| „ <i>præcox</i> -             | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9  | 10 | 11 | 12 | 332  |
| „ <i>pilulifera</i> -         | 1 | 2 | 3 | 4 | 5 |   |   | 8 | 9  | 10 | 11 | 12 | 332  |
| „ <i>glauca</i> - -           | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9  | 10 | 11 | 12 | 332  |
| „ <i>flava</i> -              | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9  | 10 | 11 | 12 | 332  |
| „ <i>extensa</i> - -          | 1 | 2 |   | 4 | 5 |   |   | 8 |    |    | 11 | 12 | 333  |
| „ <i>fulva</i> -              | 1 |   |   | 4 | 5 | 6 | 7 | 8 | 9  |    | 11 | 12 | 333  |
| „ <i>punctata</i>             | 1 |   |   |   |   |   |   |   |    |    |    |    | 333  |
| „ <i>distans</i> - -          | 1 | 2 |   | 4 | 5 |   |   | 8 |    |    | 11 | 12 | 334  |
| „ <i>binervis</i>             | 1 | 2 |   | 4 | 5 | 6 | 7 | 8 | 9  | 10 | 11 | 12 | 334  |
| „ <i>lævigata</i> -           | 1 | 2 |   | 4 | 5 |   |   | 8 | 9  |    | 11 | 12 | 334  |
| „ <i>sylvatica</i> -          | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9  | 10 | 11 | 12 | 334  |
| „ <i>Pseudo-cyperus</i> -     | 1 | 2 | 3 | 4 | 5 | 6 |   |   |    | 10 |    | 12 | 335  |
| „ <i>filiformis</i> -         | 1 |   |   |   | 5 | 6 | 7 | 8 | 9  |    | 11 | 12 | 335  |
| „ <i>hirta</i> -              | 1 | 2 |   | 4 | 5 | 6 | 7 | 8 | 9  | 10 | 11 | 12 | 335  |
| „ <i>ampullacea</i>           | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9  | 10 | 11 | 12 | 336  |
| „ <i>vesicaria</i> -          | 1 | 2 | 3 | 4 | ? |   |   | 8 | 9  | 10 | 11 | 12 | 336  |
| „ <i>paludosa</i> -           |   |   | 3 |   | 5 |   |   |   |    | 10 |    | 12 | 336  |
| „ <i>riparia</i> - -          | 1 | 2 |   | 4 |   | 6 |   |   |    |    |    | 12 | 337  |
| <i>Phalaris arundinacea</i>   | 1 | 2 |   | 4 | 5 | 6 |   | 8 | 9  | 10 | 11 | 12 | 337  |
| <i>Anthoxanthum odoratum</i>  | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9  | 10 | 11 | 12 | 338  |
| <i>Phleum arenarium</i>       | 1 | 2 |   | 4 | 5 |   |   |   |    |    | 11 | 12 | 338  |
| „ <i>pratense</i> -           | 1 | 2 |   | 4 | 5 | 6 |   | 8 | 9  |    | 11 | 12 | 338  |
| <i>Alopecurus pratensis</i> - | 1 | 2 |   | 4 | 5 |   |   | 8 | 9  |    | 11 | 12 | 339  |
| „ <i>geniculatus</i>          | 1 | 2 |   | 4 | 5 | 6 |   | 8 | 9  | 10 | 11 | 12 | 339  |
| <i>Sesleria cærulea</i> -     |   |   |   |   |   | 6 |   | 8 | 9  |    | 11 |    | 339  |
| <i>Nardus stricta</i> -       | 1 | 2 |   | 4 | 5 | 6 |   | 8 | 9  |    | 11 | 12 | 340  |
| <i>Milium effusum</i> - -     | 1 | 2 |   | 4 |   |   |   | 8 | 9  | 10 |    | 12 | 340  |
| <i>Phragmites communis</i> -  | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9  | 10 | 11 | 12 | 340  |
| <i>Psamma arenaria</i> -      | 1 | 2 |   | 4 | 5 | 6 |   | 8 | 9  |    | 11 | 12 | 341  |
| <i>Calamagrostis Epigejos</i> |   |   |   |   |   |   |   |   |    |    |    | 12 | 341  |
| „ <i>stricta</i>              |   |   |   |   |   |   |   |   | 10 |    |    | 12 | 341  |
| <i>Agrostis canina</i> - -    | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9  | 10 | 11 | 12 | 342  |
| „ <i>vulgaris</i> -           | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9  | 10 | 11 | 12 | 342  |
| „ <i>alba</i> -               | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9  | 10 | 11 | 12 | 342  |
| <i>Holcus lanatus</i>         | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9  | 10 | 11 | 12 | 342  |
| „ <i>mollis</i>               | 1 | 2 |   | 4 | 5 |   |   | 8 | 9  | 10 |    | 12 | 343  |
| <i>Aira cæspitosa</i> - -     | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9  | 10 | 11 | 12 | 343  |
| „ <i>flexuosa</i> -           | 1 | 2 |   | 4 | 5 |   |   | 8 | 9  |    | 11 | 12 | 343  |
| „ <i>caryophyllæa</i>         | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9  | 10 | 11 | 12 | 343  |
| „ <i>præcox</i> -             | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9  | 10 | 11 | 12 | 343  |

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|--------------------------------|---|---|---|---|---|---|---|---|---|------|----|----|------|
| <i>Trisetum flavescens</i>     | 1 | 2 |   | 4 | 5 | 6 |   | 8 | 9 |      |    | 12 | 344  |
| † <i>Avena fatua</i> - - -     | 1 | 2 |   | 4 | 5 |   |   |   |   |      |    |    | 344  |
| " " <i>strigosa</i> - - -      | 1 | 2 |   | 4 | 5 |   |   | 8 |   | 10   |    |    | 344  |
| " " <i>pubescens</i> - - -     | 1 | 2 |   | 4 | 5 | 6 |   | 8 | 9 |      | 11 | 12 | 344  |
| <i>Arrhenatherum avenaceum</i> | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10   | 11 | 12 | 345  |
| <i>Triodia decumbens</i> -     | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10   | 11 | 12 | 345  |
| <i>Koeleria cristata</i>       |   | 2 |   | 4 | 5 | 6 |   | 8 | 9 |      | 11 | 12 | 345  |
| <i>Melica uniflora</i> - - -   | 1 | 2 |   | 4 | 5 | 6 |   | 8 | 9 | 10   | 11 | 12 | 346  |
| <i>Molinia cærulea</i> - - -   | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10   | 11 | 12 | 346  |
| <i>Poa annua</i> - - -         | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10   | 11 | 12 | 346  |
| " <i>alpina</i> - - -          | 1 |   |   |   |   |   |   |   | 9 |      |    |    | 346  |
| " <i>nemoralis</i> - - -       |   |   |   | 4 | 5 |   |   |   |   |      |    | 12 | 347  |
| " <i>trivialis</i> - - -       | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10   | 11 | 12 | 347  |
| " <i>pratensis</i> - - -       | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10   | 11 | 12 | 347  |
| † " <i>compressa</i> - - -     |   |   |   | ? | ? |   |   |   |   |      | 11 |    | 347  |
| <i>Glyceria aquatica</i> - - - | 1 | ? |   | 4 | 5 |   | 7 |   |   |      |    |    | 348  |
| " <i>fluitans</i> - - -        | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10   | 11 | 12 | 348  |
| " <i>plicata</i> - - -         |   |   |   | 4 | 5 | 6 |   |   | 9 |      |    |    | 349  |
| <i>Sclerochloa maritima</i>    | 1 | 2 |   | 4 | 5 | 6 |   | 8 | 9 |      | 11 | 12 | 349  |
| " <i>distans</i> - - -         | 1 |   |   | 5 |   |   |   |   |   |      |    | 12 | 349  |
| " <i>Borreri</i> - - -         |   |   |   | 5 |   |   |   |   |   |      |    |    | 349  |
| " <i>procumbens</i> - - -      | 1 |   |   | 5 |   |   |   |   |   |      |    | ?  | 350  |
| " <i>rigida</i> - - -          | 1 | 2 |   | 4 | 5 | 6 |   |   |   |      | 11 | 12 | 350  |
| " <i>loliacea</i> - - -        | 1 | 2 |   | 4 | 5 |   |   | 8 |   |      | 11 | 12 | 350  |
| ‡ <i>Briza minor</i> - - -     | 1 |   |   |   |   |   |   |   |   |      |    |    | 351  |
| " <i>media</i> - - -           | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10   | 11 | 12 | 351  |
| <i>Catabrosa aquatica</i> - -  | 1 | 2 |   | 4 | 5 | 6 | 7 | 8 | 9 |      | 11 | 12 | 351  |
| <i>Cynosurus cristatus</i> - - | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10   | 11 | 12 | 352  |
| <i>Dactylis glomerata</i> - -  | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10   | 11 | 12 | 352  |
| <i>Festuca uniglumis</i>       |   |   |   | 5 |   |   |   |   |   |      |    | 12 | 352  |
| " <i>sciuroides</i>            | 1 | 2 |   | 4 | 5 | 6 |   | 8 | 9 |      | 11 | 12 | 352  |
| " <i>Myurus</i> - - -          |   | 2 |   |   |   |   |   |   | 9 |      |    |    | 353  |
| " <i>ovina</i> - - -           | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10   | 11 | 12 | 353  |
| " <i>rubra</i> - - -           | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10   | 11 | 12 | 353  |
| " <i>sylvatica</i> - - -       | 1 | 2 | 3 | 4 |   |   |   |   |   | 10   |    |    | 353  |
| " <i>gigantea</i> - - -        | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10   | 11 | 12 | 354  |
| " <i>arundinacea</i> - - -     | 1 | 2 |   | 4 | 5 | 6 |   | 8 | 9 |      | 11 | 12 | 354  |
| " <i>pratensis</i>             | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10   | 11 | 12 | 354  |
| <i>Bromus erectus</i> - - -    |   | 2 |   | 5 | 6 |   |   |   |   |      |    |    | 355  |
| " <i>asper</i> - - -           | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10   | 11 | 12 | 355  |
| " <i>sterilis</i> - - -        | 1 | 2 |   | 4 | 5 | 6 |   | 8 | 9 | 10   | 11 | 12 | 355  |
| † " <i>diandrus</i> - - -      |   | 2 |   |   |   |   |   |   |   |      |    |    | 355  |
| ‡ " <i>secalinus</i> - - -     | 1 | 2 |   | 5 | 6 |   |   |   |   |      |    | 12 | 356  |
| " <i>racemosus</i> - - -       | 1 | 2 |   | 4 | 5 |   |   | 8 | 9 |      |    | 12 | 356  |
| " <i>commutatus</i> - - -      | 1 | 2 | ? | ? | ? |   |   |   |   | (10) |    |    | 356  |
| " <i>mollis</i> - - -          | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10   | 11 | 12 | 357  |
| <i>Brachypodium sylvaticum</i> | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10   | 11 | 12 | 357  |
| <i>Triticum caninum</i> - - -  | 1 | 2 | 3 | 4 | 5 | 6 |   |   |   |      |    | 12 | 358  |
| " <i>repens</i> - - -          | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10   | 11 | 12 | 358  |
| " <i>acutum</i> - - -          | 1 | 2 |   | 4 | 5 |   |   |   |   |      | 11 | 12 | 358  |
| " <i>juncum</i> - - -          | 1 | 2 |   | 4 | 5 | 6 |   | 8 | 9 |      | 11 | 12 | 358  |

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|------------------------------------|---|---|---|---|---|---|-----|---|---|------|----|----|------|
| <i>Elymus arenarius</i>            |   |   |   | 4 |   |   |     |   | 9 |      | 11 | 12 | 359  |
| <i>Hordeum sylvaticum</i>          |   |   |   |   | 5 |   |     |   |   |      |    | 12 | 359  |
| " <i>pratense</i> -                | 1 | 2 |   | 4 | 5 |   |     |   |   |      |    | 12 | 359  |
| † " <i>murinum</i>                 | 1 | 2 |   | 5 | 6 |   |     |   | 9 |      |    | 12 | 360  |
| <i>Lepturus incurvatus</i> -       | 1 | 2 |   | 4 | 5 | 6 |     | 8 | 9 |      | 11 | 12 | 360  |
| <i>Lolium perenne</i> -            | 1 | 2 | 3 | 4 | 5 | 6 | 7   | 8 | 9 | 10   | 11 | 12 | 361  |
| † " <i>temulentum</i> -            | 1 | 2 | 3 | 4 | 5 | 6 | 7   |   |   |      | 11 | 12 | 361  |
| <i>Equisetum arvense</i>           | 1 | 2 | 3 | 4 | 5 | 6 | 7   | 8 | 9 | 10   | 11 | 12 | 362  |
| " <i>umbrosum</i> -                |   |   |   |   |   |   |     |   |   |      | 11 | 12 | 362  |
| " <i>maximum</i> -                 | 1 | 2 | 3 | 4 | 5 |   |     |   |   | 10   | 11 | 12 | 362  |
| " <i>sylvaticum</i> -              | 1 | 2 |   | 4 | 5 |   | 7   | 8 | 9 | 10   | 11 | 12 | 363  |
| " <i>limosum</i>                   | 1 | 2 | 3 | 4 | 5 | 6 | 7   | 8 | 9 | 10   | 11 | 12 | 363  |
| " <i>palustre</i> -                | 1 | 2 |   | 4 | 5 |   |     | 8 | 9 | 10   | 11 | 12 | 363  |
| " <i>hyemale</i> -                 | 1 |   | 3 | 4 | 5 |   |     |   |   |      |    | 12 | 363  |
| " <i>Moorei</i>                    |   |   |   | 4 |   |   |     |   |   |      |    |    | 364  |
| " <i>trachyodon</i> -              |   |   |   |   |   |   |     | 8 | 9 |      |    | 12 | 364  |
| " <i>Wilsoni</i>                   | 1 |   |   |   | 5 | 6 |     |   |   |      |    |    | 365  |
| " <i>variegatum</i> -              |   |   |   |   | 5 |   |     |   | 9 |      |    | 12 | 366  |
| <i>Cryptogramme crispâ</i>         |   |   |   |   | 5 |   |     |   |   | 10   |    | 12 | 366  |
| <i>Polypodium vulgare</i> -        | 1 | 2 | 3 | 4 | 5 | 6 | 7   | 8 | 9 | 10   | 11 | 12 | 367  |
| " <i>Phlegopteris</i>              | 1 |   |   | 4 | 5 | 6 |     | 8 | 9 | 10   | 11 | 12 | 367  |
| " <i>Dryopteris</i>                | ? |   |   |   |   |   |     | ? | 9 |      |    | 12 | 368  |
| <i>Lastrea Thelypteris</i>         | 1 |   |   |   | 5 | 6 | 7   | 8 |   | 10   | 11 | 12 | 369  |
| " <i>Oreopteris</i> -              | 1 | 2 |   | 4 | 5 | 6 |     | 8 | 9 | 10   | 11 | 12 | 369  |
| " <i>Filix-mas</i> -               | 1 | 2 | 3 | 4 | 5 | 6 | 7   | 8 | 9 | 10   | 11 | 12 | 369  |
| " <i>spinulosa</i>                 | 1 | 2 | 3 | 4 | 5 | 6 | 7   | 8 | 9 | 10   | ?  | 12 | 370  |
| " <i>dilatata</i> -                | 1 | 2 | 3 | 4 | 5 | 6 | 7   | 8 | 9 | 10   | 11 | 12 | 370  |
| " <i>æmula</i>                     | 1 | 2 | 3 | 4 | 5 | 6 | 7   | 8 | 9 | 10   | 11 | 12 | 371  |
| <i>Polystichum Lonchitis</i> -     | 1 |   |   |   |   |   | (7) |   | 9 | (10) | 11 |    | 371  |
| " <i>aculeatum</i> -               | 1 | 2 |   | 4 | 5 | 6 | 7   | 8 | 9 | 10   | 11 | 12 | 372  |
| " <i>angulare</i> -                | 1 | 2 | 3 | 4 | 5 | 6 | 7   | 8 | 9 | 10   | 11 | 12 | 372  |
| <i>Cystopteris fragilis</i> -      | 1 | 2 |   | 4 | ? | 6 | 7   | 8 | 9 | 10   | 11 | 12 | 373  |
| <i>Athyrium Filix-femina</i>       | 1 | 2 | 3 | 4 | 5 | 6 | 7   | 8 | 9 | 10   | 11 | 12 | 373  |
| <i>Asplenium lanceolatum</i>       | 1 |   |   |   |   |   |     |   |   |      |    |    | 374  |
| " <i>Adiantum-nigrum</i>           | 1 | 2 | 3 | 4 | 5 | 6 | 7   | 8 | 9 | 10   | 11 | 12 | 374  |
| " <i>acutum</i>                    | 1 | 2 |   | 4 |   |   |     |   |   |      |    | 12 | 374  |
| " <i>Trichomanes</i>               | 1 | 2 | 3 | 4 | 5 | 6 | 7   | 8 | 9 | 10   | 11 | 12 | 374  |
| " <i>viride</i> -                  | 1 | 2 |   |   |   |   |     | 8 | 9 |      | 11 |    | 375  |
| " <i>marinum</i> -                 | 1 | 2 |   | 4 | 5 | 6 |     | 8 | 9 | 10   | 11 | 12 | 375  |
| " <i>Ruta-muraria</i> -            | 1 | 2 | 3 | 4 | 5 | 6 | 7   | 8 | 9 | 10   | 11 | 12 | 376  |
| <i>Scolopendrium vulgare</i> -     | 1 | 2 | 3 | 4 | 5 | 6 | 7   | 8 | 9 | 10   | 11 | 12 | 376  |
| <i>Ceterach officinarum</i>        | 1 | 2 | 3 | 4 | 5 | 6 | 7   | 8 | 9 | 10   | 11 | 12 | 376  |
| <i>Blechnum boreale</i> -          | 1 | 2 | 3 | 4 | 5 | 6 | 7   | 8 | 9 | 10   | 11 | 12 | 377  |
| <i>Pteris aquilina</i> -           | 1 | 2 | 3 | 4 | 5 | 6 | 7   | 8 | 9 | 10   | 11 | 12 | 377  |
| <i>Adiantum Capillus-Veneris</i> - | 1 |   |   |   |   | 6 |     | 8 | 9 |      |    | ?  | 377  |
| <i>Trichomanes radicans</i> -      | 1 | 2 |   | 4 |   | 6 |     |   |   |      |    |    | 378  |
| <i>Hymenophyllum tunbrigense</i>   | 1 | 2 | 3 |   |   |   | 7   | 8 | 9 |      | 11 | 12 | 379  |
| " <i>Wilsoni</i>                   | 1 | 2 |   | 4 | 5 |   |     | 8 | 9 | 10   | 11 | 12 | 379  |
| <i>Osmunda regalis</i> -           | 1 | 2 | 3 | 4 | 5 | 6 | 7   | 8 | 9 | 10   | 11 | 12 | 379  |
| <i>Botrychium Lunaria</i> -        | 1 | 2 | 3 | 4 | 5 | 6 | 7   | 8 | 9 | 10   | 11 | 12 | 380  |
| <i>Ophioglossum vulgatum</i> -     | 1 | 2 | 3 | 4 | 5 | 6 | 7   | 8 | 9 | 10   |    | 12 | 380  |

|                                | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | PAGE |
|--------------------------------|---|---|---|---|---|---|---|---|---|----|----|----|------|
| <i>Pilularia globulifera</i> - |   | * |   |   |   |   |   | 8 |   |    |    | 12 | 380  |
| <i>Isoetes lacustris</i> -     | 1 |   |   | 4 |   |   |   | 8 |   | 10 | 11 | 12 | 381  |
| „ <i>echinospora</i> -         | 1 |   |   |   |   |   |   |   |   |    |    |    | 381  |
| <i>Lycopodium clavatum</i> -   | 1 | 2 |   | 4 | 5 |   |   | 8 | 9 | 10 | 11 | 12 | 381  |
| „ <i>alpinum</i> -             | 1 |   |   |   | 5 |   |   | 8 | 9 | 10 | 11 | 12 | 381  |
| „ <i>Selago</i>                | 1 | 2 |   | 4 | 5 |   | 7 | 8 | 9 | 10 | 11 | 12 | 382  |
| „ <i>inundatum</i>             |   |   |   |   |   |   |   | 8 |   |    |    |    | 382  |
| „ <i>selaginoides</i>          | 1 |   |   | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 382  |

## EXPLANATIONS OF THE FORMULA.

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The Latin names and order of the plants are taken almost entirely from Babington's *Manual of British Botany*, fifth edition, 1862.

When different Latin names are used in Hooker and Arnott's *British Flora*, or in Bentham's *Handbook*, these are quoted as synonyms in the first line, under the specific name.

Plants whose claims to be considered species are doubtful are given as sub-species, in italic type, in the centre of the page.

The signs prefixed to the specific names are used :—

† For plants which appear native, but may possibly have been introduced at a remote period.

‡ For plants probably introduced, but where some doubt exists.

\* For plants certainly introduced (whether designedly or unintentionally) by man, but which now maintain and propagate themselves in wild-looking places without human assistance.

[ Includes many species, which have either been planted, or are not thoroughly established beyond the influence of man.

The districts have been already defined in the Introduction, and are also shown on the map.

The latitude relates to Ireland only, and the range is given as far as it can be expressed in a few words within the space of the line.

The "Types" are throughout borrowed from Watson's *Cybele Britannica* (vol. iv.) as a means of comparison with Great Britain. "*British type*" signifying, briefly, general throughout Great Britain. "*English type*," Southern in Great Britain. "*Germanic type*," South-eastern in Great Britain. "*Atlantic type*," Western or South-western in Great Britain. "*Scottish*" (and "*Intermediate*"), Northern in Great Britain—more abundant in Scotland than in England. "*Highland type*" includes the mountain species, or Alpine flora.

The initials are used :—

*C. C. B.*, for Professor C. C. Babington; *I. C.*, for Isaac Carroll, of Cork; *D. M.*, for David Moore; and *A. G. M.*, for Alex. G. More.



CONTRIBUTIONS  
TOWARDS A  
CYBELE HIBERNICA.



DICOTYLEDONES OR EXOGENÆ.



ORDER I.—RANUNCULACEÆ.

*CLEMATIS* Linn.

1. \* *C. Vitalba* (Linn.)—*Traveller's Joy*.

Districts - 2 3 4 5 - 7 - - - -

Woods and hedges, also on sandhills; rare, and a very doubtful native. *Fl.* August, September.

2. On trees and hedges about Castlemartyr (certainly introduced) *Flor. Cork*.—3. Roadside hedges at Clinstown, Kilkenny; and Bordwell, Queen's county; (perhaps planted) *Rev. S. Madden*.—5. On the sandhills at Portrane, opposite Malahide, sparingly, and in one place only; *D.M.*—7. Abundant in woods at Baronston, Westmeath, probably planted; *Flor. Hib.* (Occurs in hedges near Dublin, but only where it has been planted.)

The station at Portrane is the only one in which there is any probability of the *Clematis* being native; and even here the seed may have been conveyed from plants cultivated in the vicinity. In the Appendix to Threlkeld's "Synopsis Stirpium Hibernicarum" (1726), Dr. Thomas Molyneux says that he could never meet with the *Viorna* or *Traveller's Joy* in Ireland.

*THALICTRUM* Linn.

1. *T. alpinum* (Linn.)—*Mountain Meadow-Rue*.

Districts - - - - - 8 9 - - -

Lat. 53°-55°. North-west of Ireland—Galway and Sligo.

Type in Great Britain, Highland.

Wet rocks on mountains; very rare. *Fl.* July, August.

8. Near the summit of Lettery mountain, Ballinahinch, Connemara, at the south-east part of the mountain; *Wade Rar.* Found there lately by Mr. Isaac Carroll.—9. Moist spots near the summit of Ben Bulben, Sligo; *Prof. E. Murphy* and *Flor. Ulst.*

Ranges from 1300 to 1700 feet on Ben Bulben.

2. *T. minus* (Linn.)—*Lesser Meadow-Rue*.

Districts 1 - 3 4 5 6 7 8 9 - - 12

Lat 51°-56°. From South to North of Ireland.

Type in Great Britain, Scottish, inclining to British.

Stony places and sandhills; local. *Fl.* June to August.

1. Ross-wood, Killarney; *Wade Rar.* Cliffs at Gap of Dunloe, near Killarney; *Flor. Hib.* Mangerton; *I. C.* On Sugar-loaf Mountain, Glengariff; *I. C.*—3. In a meadow near Mountmellick; *Wade Rar.*—4. Shore near Rockfield, Wicklow; *D. M.*—5. Baldoyle! Portmarnock! Ireland's Eye! *Flor. Hib.* Shore between Clontarf and Raheny; *Wade Rar.*—6. In many parts of the limestone district of north Clare and Galway; *A. G. M.*—7. Shores of Lough Ree in Westmeath and Longford; *Mr. F. J. Foot.*—8. In various parts of Mayo, especially near the large lakes; *A. G. M.*—9. Ben Bulben, Sligo (*T. calcareum*); *Mr. J. Ball.* (*Bot. Gaz. i., p. 312*).—12. Newcastle and Dundrum Bay, Down; Belfast Bay; Portmore Park and Lough-Beg, Antrim; *Flor. Ulst.* On basaltic rocks at Glenariff; *D. M.*

Ranges from sea-level to 1500 feet or more.

*T. flexuosum* (Bernh.) *T. majus* (Flor. Hib.)

Districts - - - - - 6 - 8 9 - - 12

Rocky and bushy places; rare.—6. On a hill south of Black Head, in Clare; *Mr. F. J. Foot.* On the shores of Lough Derg, near Portumna; *D. M.*—8. Near Headford, Galway

*vars. maritimum montanum*

*see ...*

(Mr. Shuttleworth) *Flor. Hib.* On an islet called Canova, in Lough Corrib; *A. G. M.* Near Pontoon, by Lough Conn! *Ir. Flor.*—9. By Lough Carra, Mayo; *Mr. J. Ball*, who mentions a large form of *Thalictrum* growing here (*A. N. H.*, Vol. ii., p. 35).—12. At the base of Slieve Donard, on the ascent from Kilkeel; *Flor. Hib.*

This is considered by Mr. Boswell Syme as a “sub-species,” and placed under *T. minus* in his edition of English Botany.

3. *T. flavum* (Linn.)—*Marsh Meadow-Rue.*

Districts - 2 3 4 5 6 7 8 9 10 - 12  
 Lat. 52°–56°. Throughout Ireland, but local.

Type in Great Britain, English.

River-sides and marshy places; rather rare. *Fl.* June, July.

Quite a local plant, though recorded from nearly all the districts.

+

*ANEMONE* Linn.

1. *A. nemorosa* (Linn.)—*Wood Anemone.*

Districts 1 2 3 4 5 6 7 8 9 10 11 12  
 Lat. 51°–56°. Throughout Ireland.

Type in Great Britain, British.

Woods and shady places, moist meadows, &c.; common. *Fl.* March to May.

Ranges from sea-level to 1200 feet in Derry.

[*Anemone apennina* (Linn.) is included in Mackay’s “*Flora Hibernica*,” as found many years ago at Glasnevin. Dr. Wade also speaks of its having been observed in a perfectly wild state at Glasnevin previous to the establishment of the present Botanic Garden; but there can be little doubt that it was planted, or had escaped from cultivation. It still grows plentifully in the grounds of Delville, at Glasnevin.]

*ADONIS* Linn.

1. † *A. autumnalis* (Linn.)—*Pheasant’s Eye.*

Districts - - - 4 5 - - - - -  
 Lat. 53°–54°. East of Ireland, Wicklow, and Dublin.

Type in Great Britain, Germanic.

Cultivated ground; very rare, and probably sown with the crops. *Fl.* July to August.

4. On broken ground by a pathway between Enniskerry and Bray; *Mr. P. M'Arde*.—5. "Inter segetes nonnunquam;" *Wade Dubl.* About Dundrum (growing with *Delphinium Consolida*); *Mr. D. Orr*. In a potato field, near the Martello Tower at Howth, sparingly, 1865; *Dr. E. P. Wright*.

Once seen on the Little Island, near Cork, by *Mr. J. Sullivan*.

### RANUNCULUS Linn.

#### 1. *R. circinatus* (Sibth.)—*Rigid Water Crow-foot*.

*R. aquaticus* var. Bentham.

Districts 1 - 3 4 5 6 - - - - -

Lat. 51°-54°. Southern half of Ireland.

Type in Great Britain, English, inclining to Germanic.

Pools and streams, apparently rare. *Fl.* May, June.

1. In the Lough of Cork, &c. *Flor. Cork*. Lough of Cork; *I. C.*—3 and 4. In the river Barrow, near Monasterivan, etc. *D. M.*—5. In the Liffey, near Chapelizod; *A. G. M.* In the Liffey, near Straffan, Kildare; *Mr. J. Douglas*.—6. Near Limerick! *Prof. Harvey* and *I. C.*

*Mr. S. A. Stewart* informs us that *R. circinatus* does not grow near Belfast; and *Dr. Dickie* writes that *R. trichophyllus* was mistaken for it at Massarene Park, Lough Neagh.

#### 2. *R. heterophyllus* (Sibth.)—*Common Water Crow-foot*.

*R. aquatilis* (Linn.) Brit. *Flor.* *R. aquaticus* var. Bentham.

Districts 1 2 3 4 5 6 7 8 9 10 11 12

Lat. 51°-56°. Throughout Ireland, in its various forms.

Type in Great Britain, British.

Ponds, streams, ditches, &c.; common *Fl.* May, June.

*R. trichophyllus* (Chaix).

Districts 1 2 - - 5 - - 8 9 - - 12

1. Dodges-glen pond; and streams in the Blarney bogs; *Flor. Cork*.—2. Near Fermoy! *Mr. T. Chandlee*.—5. In a pond, at the Rectory, Newcastle-Lyons, Dublin; *A. G. M.* 8. Hollymount, Mayo; *A. G. M.*—near Ballinrobe! *Miss K. M. Lindsey*.—9. Near Ballina, Mayo; *A. G. M.*—12. Near Belfast (both *R. Godronii* † and *R. radians* †); *Mr. S. A. Stewart*. Massarene Park! *Prof. Dickie*.

*Mr. Stewart* has ascertained that the plant recorded as

"*R. Drouetii*" in "Flora Belfastiensis" is really *R. trichophyllus*.

*R. heterophyllus* (Bab.).

District - - - - - 12

12. Lough Mourne, near Carrickfergus; salt marshes near Belfast; near Bangor, Groomsport, and on the Copeland Islands; *Mr. S. A. Stewart*; probably frequent in Ireland. When the floating leaves are absent *R. heterophyllus* is sometimes hardly distinguishable from *R. trichophyllus*.

*R. Baudotii* (Godron).

Districts 1 2 - - - 6 - 8 - - - -

1. Near Castlegregory! Kerry; *D. M.* In pools near Cork; *I. C.*—2. By the railway near Waterford; *C. C. B.*—6. Near Galway! *D. M.*—8. Near Galway, to the west of the town; *Prof. Melville*.

*Obs.*—Professor Babington considers *R. Baudotii*, of "Flora Belfastiensis," to be a form of *R. heterophyllus*.

*R. floribundus* (Bab.).

Districts - - - - 5 - - 8 9 - - -

5. In the Boyne, below Navan! *D. M.* Near Dublin; *A. G. M.*—8 and 9. Near Foxford, Mayo; *A. G. M.*, and probably frequent, but very difficult to distinguish from *R. peltatus*.

*R. peltatus* (Fries!).

Districts - - - - - 8 9 - - 12

8. In the Moy, and (9) in Lough Cullin, Mayo; *A. G. M.* 12. Frequent in Down, and rare in Antrim; *Mr. S. A. Stewart*.

*R. pseudo-fluitans* (Syme).

Districts 1 2 - - 5<sup>†</sup> - - - - 10 11 12

1. Ross Island, Killarney; *C. C. B.*—2. In the River Suir, near Clonmel; *D. M.* Near Fermoy! *Mr. T. Chandlee*.  
<sup>†</sup> 5. In the Liffey, near Chapelizod; *A. G. M.*—10 and 11. In the Erne, near Ballyshannon; *A. G. M.* 12. Near Templepatrick! *Mr. S. A. Stewart*.

*Obs.*—*R. tripartitus*, recorded in the "Flora of Ulster," as found by Mr. Templeton, at Shaw's Bridge, near Belfast, is probably some form of *R. heterophyllus*, or of *R. trichophyllus*.

3. *R. fluitans* (Lam.)—*River Crow-foot*.*R. aquaticus* var. Benth.

District — — — — — — — — — — 12

Lat. 54°–55°. North-east of Ireland—Antrim only.

Type in Great Britain, English.

In rivers; apparently very rare in Ireland. *Fl.* July, August.12. In Six-mile River, near Templepatrick, Antrim! *Mr. S. A. Stewart*. *Mr. Stewart's* specimens have been verified by Professor Babington.The "*R. fluitans*" from Ballyronan and Massarene Park (*Flor. Ulst.*) is probably *R. trichophyllus* or *R. pseudo-fluitans*.4. *R. cœnosus* (Guss.)—*Greater Ivy-leaved Crow-foot*.*R. Lenormandi* (Schultz). *R. aquaticus* var. Benth.

Districts 1 2 — 4 5 6? — — — — —

Lat. 51°–54°.—Southern half of Ireland.

Type in Great Britain, English, inclining to Atlantic.

Moist sandy places, borders of ponds, &c.; frequent. *Fl.* May to August.1. Gap of Dunloe, Killarney; *C. C. B.*—1 and 2. Dodges-glen, &c.; *Fl. Cork*. In South and North Cork; *I. C.*—2. Frequent near Fermoy; *Mr. T. Chandlee*. On Galtymore, Tipperary; *D. M.*—4. At Powerscourt; *A. G. M.*—5. Quarry holes, near Raheny, Dublin; *D. M.*—6? Believed to have been seen in Galway; *A. G. M.* Reported from Moneymore, Derry; but excluded from the "*Flora of Ulster*" by Dr. Dickie.5. *R. hederaceus* (Linn.)—*Lesser Ivy-leaved Crow-foot*.*R. aquaticus* var. Benth.

Districts 1 2 3 4 5 6 7 8 9 10 11 12

Lat. 51°–56°. Throughout Ireland.

Type in Great Britain, "British."

On wet mud, shallow pools, &c.; common. *Fl.* May to August.

Ranges from sea-level to 600 feet in Derry.

6. *R. sceleratus* (Linn.)—*Celery-leaved Crow-foot.*

Districts 1 2 3 4 5 - - 8 9 10 11 12

Lat. 51°-56°. From South to North of Ireland.

Type in Great Britain, British.

Ditches and ponds; not unfrequent, but rather local. *Fl.* June to August.

Rare or wanting in many parts of the west and north-west of Ireland.

7. *R. Flammula* (Linn.)—*Small Spearwort.*

Districts 1 2 3 4 5 6 7 8 9 10 11 12

Lat. 51°-56°. Throughout Ireland.

Type in Great Britain, British.

Watery places; very common. *Fl.* June to August.8. *R. Lingua* (Linn.)—*Great Spearwort.*

Districts 1 2 3 4 5 6 - 8 9 10 11 12

Lat. 51°-55°. From South to North of Ireland.

Type in Britain, English, inclining to British.

Margin of lakes and streams; local, and rather rare. *Fl.* June, July.

2. Blarney; *Drummond*.—3. Foulks court Bog, Kilkenny; *Rev. S. Madden*.—4. Murrrough of Wicklow; *D. M.*—5. Near the sea shore at Raheny, and Curragha Bog, Dublin; *Ir. Flor.* In the lake at Carton; *Mr. J. Douglas*. Between Castle Dermot and Carlow; *I. C. Collon*, Louth; *Flor. Hib.*—6. By the Fergus, above Ennis, Clare; *Flor. Hib.* Bog at Kilmacduagh, Galway; *A. G. M. Tuam, Ir. Flor.*—8. Maam; *C. C. B.*—9. In Lough Key, near Boyle; *Mr. F. J. Foot*.—10. Loughgall, Armagh; *A. G. M.* Shores of Lough Erne; *Flor. Hib.* Near Ecklinsville, Down; *Fl. Ulst.* Marsh, near Poplar Vale, Monaghan; *Miss Maffett*.—11. Shores of Lough Eske, Donegal; *Flor. Hib.*—12. Ram's Island, in Lough Neagh; Lagan Canal, Bog Meadows, and King's Moss, near Belfast; *Flor. Ulst.* At Toom Bridge, and Lough Beg, and by the River Bann; *D. M.* Margin of Portmore Lake, near Ballinderry; *Mr. S. A. Stewart*.

Mr. Carroll tells us that the plant does not grow at Clonakilty Bay, Cork.

9. *R. Ficaria* (Linn.)—*Pilewort*.

Districts 1 2 3 4 5 6 7 8 9 10 11 12

Lat. 51°–56°. Throughout Ireland.

Type in Great Britain, British.

Shady places, and damp pastures; abundant. *Fl.* April, May.10. *R. auricomus* (Linn.)—*Goldilocks*.

Districts 1 2 3 4 5 - 7 - 9 10 - 12

Lat. 51°–56°. From South to North of Ireland.

Type in Great Britain, British, inclining to English.

Woods and thickets; rather local. *Fl.* April to June.Scarce in the west; very rare also in the south; *I. C.*11. *R. acris* (Linn.)—*Upright Crow-foot*.

Districts 1 2 3 4 5 6 7 8 9 10 11 12

Lat. 51°–56°. Throughout Ireland.

Type in Great Britain, British.

Meadows and pastures; abundant. *Fl.* June, July.

Ranges from sea-level to 1200 feet in Derry; and higher on the southern mountains.

*Obs.*—A small form, occurring upon mountains in Kerry,<sup>+</sup> Tipperary, and Donegal, and at the base of Ben Evenagh, Derry, has been mistaken for *R. hirsutus*, of which latter we have not seen any Irish specimen. Dr. Dickie has informed us that the station "at Warrenpoint" was inadvertently transcribed into the "Flora of Ulster," and that he has never met with *R. hirsutus* in the north of Ireland.

12. *R. repens* (Linn.)—*Creeping Crow-foot*.

Districts 1 2 3 4 5 6 7 8 9 10 11 12

Lat. 51°–56°. Throughout Ireland.

Type in Great Britain, British.

Meadows and pastures, especially in damp places; abundant. *Fl.* June to August.

When growing on ground overflowed during Winter, the early leaves are cut into very narrow segments.

13. *R. bulbosus* (Linn.)—*Bulbous Crow-foot*.

Districts 1 2 3 4 5 6 7 8 9 10 11? 12

Lat. 51°–56°. Throughout nearly all Ireland.

Type in Great Britain, British, inclining to English.

+ *R. Friesianus* (Jard) *Sup. p. 9.*



Meadows and pastures; common in most parts of the country, but appears rare or wanting in the extreme north-west. *Fl.* May, June.

14. † *R. arvensis* (Linn.)—*Corn Crow-foot.*

District - - - - 5 - - - - -

Lat. 53°-54°. East of Ireland—Dublin only.

Type in Great Britain, English.

In cornfields; very rare. *Fl.* May to July.

5. On the lands of Beldrummond, near the "Man-of-War" Inn; *Flor. Hib.* In corn fields at Raheny and Malahide; *the late Mr. Johnston.* "It flowers among corn in May, about Raheny and Kilsaughan;" *Threlkeld* (1726). The latter record shows that, if originally introduced with corn, the plant has continued on the same spot for a hundred and forty years.

15. *R. parviflorus* (Linn.)—*Small-flowered Crow-foot.*

Districts 1 2 3 4 5 - - - - - 12

Lat. 51°-55°. South and East of Ireland.

Type in Great Britain, English.

In corn fields and on dry banks; very rare. *Fl.* April to June.

1. Near Carrigrohane Castle; *Drmmond.* Near the town of Cove and by the Glanmire road; *Flor. Cork.* Spike Island, on the ramparts; *I. C.*—2. At Ballyvodock, near Middleton, and Ballywilliam, near Poorhead; *Flor. Cork.* Rock of Cashel; *Miss S. Grubb.*—3. Near the City of Kilkenny; *Rev. S. Madden.*—4. Along the river side at Bray; *Wade Rar.* and *Ir. Flor.*—5. On the east side of the Green-hills, and on the ditch side beyond Miltown, about half a mile on the road to Churchtown, County Dublin; *Wade Rar.* Corn fields between Baldoyle and Howth; *Flor. Hib.* Near the lime-kiln, a little west of Howth; *Mr. D. Orr.*—12. In a sandy field at Newforge Malone, near Belfast, 1846! *Mr. D. Orr.*

CALTHA Linn.

1. *C. palustris* (Linn.)—*Marsh Marygold.*

Districts 1 2 3 4 5 6 7 8 9 10 11 12

Lat. 51°-56°. Throughout Ireland.

Type in Great Britain, British.

Marshy places; common. *Fl.* March to June.

*B. Guerinieri.* - - - - - 9 - - -  
*see Sup. p. 9.*

*TROLLIUS* Linn.*T. europæus* (Linn.)—*Globe Flower*.

Districts - - - - - 11 12?

Lat. 54°-56°. North of Ireland—Donegal and? Antrim.

Type in Great Britain, Scottish.

Mountain pastures, "woods and shady rocks;" (*Flor. Ulst.*).

Very rare. *Fl.* June, July.

11. Convoy and Lough Garten, in Donegal; *Flor. Hib.*  
Near Raphoe, certainly wild; *Prof. E. Murphy*.—12.? Near  
the Giant's Causeway (*Mr. Whitta*); *Flor. Ulst.* (Not found  
by *D. M.*)

*AQUILEGIA* Linn.1. *A. vulgaris* (Linn.)—*Columbine*.

Districts 1<sup>v</sup> ~~2~~ (3) - (5) 6 ~~7~~ 8 - - - 12

Lat. 53°-55°. Native only in the West and North-east.

Type in Great Britain, English, inclining to intermediate.

Rocky pastures, furze, brakes, and bushy places; rare;  
no doubt introduced in most of its localities. *Fl.* June.

1. At Killarney, doubtfully indigenous; *C. C. B.*—1 and 2.  
In Curraghs, near Kilbullane, Cork; *K'Eogh*. In furze,  
brakes, near Cork, doubtfully wild; *I. C.* and *Flor. Cork.*—  
2. On rocks near Glanworth, naturalized; *Mr. T. Chandlee*.  
On a limestone hill in Tipperary; *Rev. T. O. Mahony*.—3. In  
the County of Kilkenny; at Richmond, Glandine, near  
Kilkenny, &c., *Rev. S. Madden*. Troy's Wood, Kilkenny;  
*Mr. P. Duffy*.—5. Knockmaroon Hill, Dublin; *Flor. Hib.*  
Hedges near Finglass; *Mr. D. Orr*. Hedge near Glasnevin;  
*Rev. H. G. Carroll*. Along the waterfall at Leixlip; *Ir. Flor.*  
Dollardstown bog, Kildare (a bog recently drained and  
planted); *Mr. J. Douglas*.—6. In Marquis of Clanricarde's  
park, at Portumna, apparently wild; *Prof. Harvey*. On  
limestone crags between Ennis and St. John's Well; *Rev. T.*  
*Warren*.—6 and 8. On limestone rocks and pastures between  
Headford and Cong, truly wild; (*Mr. Shuttleworth*) *Flor. Hib.*  
On the eastern side of Lough Corrib (wild and plentiful);  
*Prof. Melville*. Woods near Clontueskart, in Galway;  
*K'Eogh*. Menlough Castle; *Rev. T. O'Mahony*.—12. On the

shores of Lough Neagh, near Crawfordsburn and Salters-town; *D. M.*

[*Helleborus viridis* (Linn.) is recorded as found in a meadow near Doneraile; (*Smith's "Cork"*). By the river of Duncourney, near Middleton, and at Ballydonna (*Flor. Cork*). Near the church of Kilcockan, three miles from Tallow; (*Smith's "Waterford"*). At Drummartin, near Dundrum, Dublin; (*Wade Rar*). It had, no doubt, escaped from cultivation in all these localities.]

[*H. fœtidus* (Linn.)—K'Eogh says that "*H. niger fœtidus*" grows on great mountains, particularly Slieve Baghtine, and near Druncullagher, in Limerick. No one has found it recently.]

[ORDER BERBERIDACEÆ.]

[*Berberis vulgaris* (Linn.) is occasionally seen in hedges and about cottage gardens, but only in places where it has been planted.]

ORDER II.—NYMPHÆACEÆ.

*NYMPHÆA* Linn.

1. *N. alba* (Linn.)—*White Water-Lily*.

Districts 1 2 3 4 5 6 7 8 9 10 11 12

Lat. 51°–56°. Throughout Ireland.

Type in Great Britain, British.

Lakes, ditches, and slow rivers; frequent. *Fl.* June, July.

From sea-level to 700 feet in Derry.

*NUPHAR* Smith.

1. *N. lutea* (Sm.)—*Yellow Water-Lily*.

Districts 1 2 3 4 5 6 7 8 9 10 11 12

Lat. 51°–56°. Throughout Ireland.

Type in Great Britain, English, inclining to British.

Lakes, ditches, &c.; frequent. *Fl.* June, July.

Dr. Dickie describes *N. lutea* as less abundant than *Nymphæa alba* in Ulster, and rare in North-west Donegal. *N. lutea* is rare also in Cork; (*Flor. Cork*).

## ORDER III.—PAPAVERACEÆ.

## PAPAVER Linn.

1. *P. Argemone* (Linn.)—*Long Prickly-headed Poppy*.

Districts 1 2 - 4 5 - - - - - 12

Lat. 51°–56°. South and East of Ireland chiefly.

Type in Great Britain, British, inclining to English.

Cultivated land, usually on a sandy soil, and near the coast; rare. *Fl.* June, July.

1 and 2. Near Cork, at Cove, Monkstown, &c.; *Flor. Cork*. In both divisions of Cork, but rare; *I. C.* Ardmore, Waterford; *Miss S. Grubb*.—3. In Carlow; *I. C.*—4. On the coast of Wexford; *I. C.* By the railway at Kilcool, Wicklow; *Mr. T. Chandlee*.—4. On the coast of Wexford; *I. C.*—5. A specimen or two near Athy, Kildare; *I. C.* Kilbarrock Church, and Baldoyle; *Flor. Hib.* At Cabinteely; *Rev. S. Madden*. At Rush; *Ir. Flor.*—12. Fields near Bangor, Down; *Flor. Ulst.* Belmont, near Belfast; *Mr. S. A. Stewart*. Malone and Curran of Larne; *Flor. Ulst.* Near Lisburn; *D. M.* In the parishes of Dunboe and Tamlaghtard, Derry; *D. M.* Magilligan, Derry; *Mr. S. A. Stewart*.

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

Districts 1 2 - 4 5 6 - - - - - 12

Lat. 51°–55°. East and South of Ireland chiefly.

Type in Great Britain, English.

Cultivated land, mostly on a sandy soil; rare. *Fl.* June, July.

1 and 2. On Little Island; *I. C.* Blackrock, and on the south side of Little Island; *Flor. Cork*.—4. At Kilcool, Wicklow; *Mr. T. Chandlee*.—5. Kilbarrock Church! and near Baldoyle! *Flor. Hib.* Portmarnock! and Rush; *Ir. Flor.* Swords; *Mr. D. Orr*.—6. Near Castle Taylor, in Galway; *A. G. M.*—12. Holywood, Down; *Flor. Ulst.* Near Groomsport, plentiful; *Flor. Belf.*

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

Districts 1 2 3 4 5 - 7 - - 10 - 12

Lat. 51°-56°. South and East of Ireland chiefly.

Type in Great Britain, British, inclining to English.

Cultivated land, frequent in some parts of the country, but local. *Fl.* June, July.

Very rare in Antrim, except at Lisburn; and rare or wanting in the west and north-west of Ireland, where *P. dubium* seems to be far more widely distributed.

*P. Rhœas* has not yet been found west of the Shannon.

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

Districts 1 2 3 4 5 6 - 8 9 - 11 12

Lat. 51°-56°. Throughout Ireland.

Type in Great Britain, British.

✧ Cultivated land; not unfrequent. *Fl.* June, July.

*P. Lecoqui* (Lamotte) has been found in Dublin (*A. G. M.*), Galway (*Prof. Melville*), and Mayo (*A. G. M.*); in these counties associated with *P. Lamottei* (Bor.), from which we do not think it deserves to be distinguished even as a sub-species. Mr. S. A. Stewart reports *P. Lecoqui* as the only form of *P. dubium* which he has seen in the counties of Down, Antrim, and Derry.

[*Papaver somniferum* (Linn.), the *Opium Poppy*, occurs here and there occasionally, as a weed among crops, and in waste ground near gardens, but is not indigenous, though it has continued for many years in one at least of its stations, on sandy banks and in fields at Baldoye, near Dublin.]

## MECONOPSIS Vig.

1. *M. cambrica* (Vig.)—*Welsh Poppy*.

Districts - 2 3 4 (5) 6 - 8 9 10 - 12

Lat. 52°-56°. South, East, North, and West of Ireland.

Type in Great Britain, Atlantic.

Rocky places, on mountains, and by rivers; rare. *Fl.* June, July.

2. On the Commeragh mountains, Waterford, found sparingly by Mr. J. Poole; *I. C.*—3. By the Barrow, in Queen's County; *D. M.*—4. Devil's Gap, Wicklow; *D. M.*

In the Dargle; *Mr. J. Ball*.—5. Dalkey; *Ir. Flor.*—6. In the clefts of wet limestone rocks at Poulmagolm, near Ennis, Clare; *Rev. T. Warren*.—8. On the hill above Clifden, Connemara; *Flor. Hib.*—9. On Ben Bulben (south face); *Flor. Hib.* On Legale, Sligo; *Admiral Jones*.—12. On Rostrevor Hill, Down; *Wade Rar.* On Garron Head, between it and Glenariff, Antrim; *D. M.* Fair Head and Ballycastle; *Flor. Ulst.*

Ranges from 100 feet in Antrim to 1000 feet on Ben Bulben.

*GLAUCIUM* Tourn.

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

Districts 1 2 - 4 5 6 - 8 - - - 12

Lat. 51°— Coasts round nearly all Ireland.

Type in Great Britain, English.

Sandy sea shores; frequent, but rather local. *Fl.* June to August.

Round nearly the whole coast, but most abundant in Dublin and Wicklow.

*CHELIDONIUM* Linn.

1. \* *C. majus* (Linn.)—*Celandine*.

Districts 1 2 3 4 5 - 7 8 9 10 11 12

Lat. 51°-56°. From South to North of Ireland.

Type in Great Britain, English, inclining to British.

On walls and waste places near houses; rather rare. *Fl.* May, June.

ORDER IV.—FUMARIACEÆ.

*CORYDALIS* De Cand.

1. *C. claviculata* (D C.)—*White Climbing Fumitory*.

Districts 1? - - 4 5 6? - - - - -

Lat. 53°-54°. East of Ireland—Wicklow and Dublin.

Type in Great Britain, British, inclining to Atlantic.

Gravelly and bushy places, thatched roofs, &c.; very rare. *Fl.* May to August.

1. Hedges near Kilcrea Castle, Cork; *Drummond*. Near the Ovens (Dr. Hinks); *Flor. Cork* (but not found recently).—

4. Rocky grounds about Bellview, County Wicklow; *Ir. Flor.* On cabins between Ballinteer and the Little Dargle; *Flor. Hib.* Near Enniskerry; *A. G. M.* At Powerscourt Waterfall; *D. M.*—5. Beyond Dundrum, and by-ways leading from Kilgobbin to the mountains; *Ir. Flor.* Above the Little Dargle, and on the road to Kilmashogue; way-side between Dundrum and the Dublin mountains; *Wade Rar.*—6? Old hedges at Ballinamore, and shore banks at Renvi, Connemara; *Wade Rar.* Near Kildoony, north side of Tuam, and between Tuam and Galway; *Ir. Flor.* Supposed to have been found near Warrenpoint, (*Flor. Ulst. Suppl.*), but this locality and those in Cork and Galway require confirmation.

[*C. lutea* (D.C.) is naturalized on a wall near Purdysburn; *Flor. Ulst.*]

### FUMARIA Linn.

#### 1. *F. capreolata* Linn. (Brit. Flor.)—*Ramping Fumitory.*

Districts 1 2 3 4 5 6 7 8 9 10 11 12

Lat. 51°–56°. Throughout Ireland.

Type in Great Britain, British.

Cultivated land, waste ground, &c.; frequent. *Fl.* June to September.

#### *F. pallidiflora* (Jordan).

Districts - - - - 5 6 - 8? 9 10? 11 12

*Var*  $\beta$  *Borœi* (*F. Borœi* Jord.)

12. Glenmore, Antrim; *Mr. J. H. Davies.*

#### *F. confusa* (Jordan).

Districts 1 2 - ~~4~~ 5 - - 8 9 - - 12

These two sub-species have not been sufficiently distinguished, but appear to be about equally distributed.

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

Districts 1 2 3 4 5 6 7 8 9 10 11 12

Lat. 51°–56°. Throughout Ireland.

Type in Great Britain, British.

Cultivated fields, &c.; frequent. *Fl.* June to September.

Like many other "colonists," much more rare in the West.

[*"F. parviflora"* (Lam.) is recorded to have been found on Whiddy Island, Cork (*Drummond*); on Cape Clear Island

(*Flor. Hib.*); at Three Castle Head (*Mr. Nash*); and in the county of Dublin (*Mr. J. Ball*); but we have seen no Irish specimens. The plant preserved as "*F. parviflora*" in Dr. Mackay's Herbarium is *F. micrantha* (*Lag.*), which is the more likely species to have occurred.]

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ORDER V.—CRUCIFERÆ.

*MATTHIOLA* R. Br.

1. *M. sinuata* (R. Br.)—*Sea Stock*.

Districts 1 - - 4 - 6 - - - - -  
 Lat. 52°-54°. South-east and West Coasts of Ireland.  
 Type in Great Britain, Atlantic.

Sandy sea shores; very rare. *Fl.* June to August.

1. Near Beal Castle, towards the Shannon mouth; *Smith's "Kerry."* 4. On sandy clay banks by the shore at Ballyconigar, or Blackwater, Wexford; *Mr. J. Morrison*. Near Gorey, Wexford; *Mr. H. O'Neill*. 6. On a small island called Straw Island, near the largest island of Arran; *Flor. Hib.* (not seen there lately; *D. M.*). Sandhills of Dough, county Clare, sparingly; *Wade Rar.*

*CHEIRANTHUS* Linn.

1. \* *C. Cheiri* (Linn.)—*Wall-flower*.

Districts 1 2 3 4 5 - - - - - 12  
 On old walls and ruins, rarely on calcareous rocks; well established, but no doubt an escape from cultivation. *Fl.* April, May.

Mr. Carroll describes the wall-flower as covering the lofty rocks at Myrtle Hill, Cork. In the wild state of the species (*C. fruticosus* Linn.) the flowers are much smaller, yellow, and scarcely veined.

*NASTURTIUM* R. Br.

1. *N. officinale* (R. Br.)—*Water Cress*.

Districts 1 2 3 4 5 6 7 8 9 10 11 12  
 Lat. 51°-56°. Throughout Ireland.  
 Type in Great Britain, British.

Ditches and streams, ponds, &c.; common. *Fl.* June to Aug.  
 From sea-level to 800 feet in Derry.



2. *N. palustre* (De Cand.)—*Broad-podded Marsh Cress.**N. terrestre* (Br.) Brit. Flor. and Flor. Hib.

Districts 1 2 3 4 5 6 7 8 9 10 - 12

Lat. 51°-56°. From South to North of Ireland.

Type in Great Britain, English, inclining to British.

Marshes and watery places; local, and rather rare. *Fl.* June to August.

1 and 2. By the Lough, the Lee, and in Dodges-glen, rather rare; *Flor. Cork.* In both divisions of Cork; *I. C.*—  
 2. Near Fermoy, by the Blackwater, &c.; *Mr. T. Chandlee.* Near Clonmel, Tipperary; *Miss S. Grubb.*—5. By the river at Ballitore and near Moone, Kildare; *I. C.* Near Ringsend, &c., near Dublin; *Flor. Hib.* Curragha Bog and Greenogue; *Wade Rar.* Tenure Bog, along the river side, county Louth; *Ir. Flor.*—6. Near Tuam; *Wade Rar.* Garryland, near Gort; *A. G. M.*—7. Near Lough Iron! West Meath; *Miss E. Reynell.*—8 and 9. By the Moy, near Foxford, Mayo; *A. G. M.*—10. Canal side at Tyhallen Glebe, Monaghan; *Miss. Maffett.* Shores of Lough Neagh, at Maghery, Armagh; *Flor. Ulst.* Shores of Lough Erne; *Herb. Mackay.*—12. Near Drumbridge and Belfast, and in Moira demesne; *Flor. Ulst.* In Newtownards Glen, abundant; *Mr. S. A. Stewart.* By Lough Neagh, Derry; *D. M.*

There are two forms of this plant; one is a small prostrate annual, the other is much stouter, taller, and nearly upright, with an apparently perennial root. The latter, we believe, has in many places been mistaken for *N. sylvestre*.

3. *N. sylvestre* (R. Br.)—*Narrow-podded Marsh Cress.*

Districts - 2 - - - - - - - - - -

Lat. 52°-53°. South of Ireland.

Type in Great Britain, English.

Banks of rivers; very rare? *Fl.* June to August.

2. River side near Clonmel! Tipperary; *Miss S. Grubb.* By the Suir, near Clonmel; *Mr. T. Anderson* (in Bot. Gaz.). On the west bank of the Blackwater, five miles below Lismore, Waterford; *I. C.*

The localities recorded in the North of Ireland are believed to belong to the larger forms of *N. palustre*, above noticed. The specimens preserved in Dr. Mackay's Herbarium, as from Lough Erne, are *N. palustre*, and so are all those which we have seen from Ulster.

*BARBAREA R. Br.*

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

Districts 1 2 3 4 5 6 7 8 9 10 11 12

Lat. 51°–56°. Throughout Ireland.

Type in Great Britain, British, inclining to English.

Hedge banks, roadsides, and by ditches; frequent. *Fl.* May, June.

*Var. β B. arcuata* (Reich).

Very rare.—10. On roadsides near Loughgall, Armagh; *A. G. M.* This variety, distinguished by its larger flowers and spreading pods, is figured and described as a sub-species by Mr. Syme in English Botany.

2. † *B. intermedia* (Bor.)—*Intermediate Winter Cress*.

*B. vulgaris* var. Bentham.

Districts - - - - - 10 - 12

Lat. 54°–55°. North-east of Ireland; recently introduced.

Probably introduced in Great Britain.

Cultivated fields, sandy banks, and waste places: very local. *Fl.* April, May.

10. In cultivated fields near Tartaraghan, Armagh (probably introduced with the crops); *A. G. M.*, 1854.—

12. Tollymore Park, Down; *Mr. S. A. Stewart*. The localities given for *B. præcox* in the "*Flora Belfastiensis*," Mr. Tate informs us, should be transferred to *B. intermedia*, which appears to be rather common in the neighbourhood of Belfast, having been found about Cave-hill Tramway; in fields at Wolf-hill; by the side of the Lagan; and about Lisburn, on railway banks, plentifully. In 1864 it occupied all the railway banks from Derriagh to Hillsborough, and occurred in great profusion in borders of fields in the valley of the Lagan, chiefly on a sandy soil. It was first gathered as (*B. præcox*) in fields near Ballymena, about the year 1836.

3. † *B. præcox* (R. Br.)—*Early Winter Cress.**B. vulgaris* var. Bentham.

Districts 1 2 - - - - -  
 Lat. 51°-52°. Extreme South of Ireland. A doubtful native.  
 Probably introduced in Great Britain.

Waysides and hedge-banks, waste places, &c.; very rare.  
*Fl.* April to June.

1 and 2. In several places about Cork, Great Island, Passage, Glasheen, &c.; *Flor. Cork.* Common about Cork; *I. C.* Roadside near the town of Ardmore, Waterford; *Mr. J. Sullivan.* Occurs occasionally elsewhere in the vicinity of gardens.

*TURRITIS* Linn.1. † *T. glabra* (Linn.)—*Tower Mustard.*

District - - - - - 12

Lat. 54°-55°. North-east of Ireland—Antrim only.

Type in Great Britain, Germanic, inclining to English.

Dry banks and stony places; very rare. *Fl.* June to August.

12. In a small field, or enclosure, at the foot of the White Rock Mountain, near Belfast! plentiful in 1847; *Mr. D. Orr.* As the locality was not far from a cottage, the plant may possibly have been introduced by some accident, though it is likely to be indigenous near Belfast as it occurs in the west of Scotland.

*ARABIS* Linn.1. *A. hirsuta* (R. Br.)—*Hairy Rock Cress.**A. sagittata* (De Cand.) Syme's Engl. Bot.

Districts 1 2 3 4 5 6 - 8 9 - 11 12

Lat. 51°-56°. From South to North of Ireland.

Type in Great Britain, British, inclining to English.

Walls and calcareous or basaltic rocks; local. *Fl.* June, July.

Far from common, though it probably occurs in nearly every county. It is abundant in many parts of the limestone districts of Clare and Galway; on Ben Bulbin; in Leitrim;

and Mr. Syme, in his edition of English Botany, notices a glabrous variety found on the Arran Isles, in Galway Bay.

Ranges from sea-level to 1200 feet on Ben Bulben.

*A. ciliata* (R. Br.).

Districts 1 - - - - 6 - 8 - - - -

Sandhills, banks, and rocky pastures, by the sea; very rare. *Fl.* July, August.

1. On a sandbank near the western point of the barony of Bere, (Bear Island; *Flor. Cork.*) and on sandbanks near Derrynane, Kerry; *Drummond.*—6. In the Great Island of Arran, in Galway Bay; *D. M.*—8. At Roundstone, Connemara; *C. C. B.* On the gravelly beach at Renvyle, Connemara; *Mackay Cat. Ir.*

*A. ciliata* is very closely allied to *A. hirsuta*, and the characters drawn from the leaves, seeds, and pods, seem hardly sufficient for a species; it was first found in Connemara by Dr. Mackay in 1805.

3. *A. petræa* (Lam.)—*Mountain Cress.*

District - - - - - 9 - - - -

Lat. 54°–55°. North-west of Ireland.

Type in Great Britain, Highland.

Alpine rocks; very rare. *Fl.* July, August.

9. On Glenade Mountain, adjoining Ben Bulben, in the County of Leitrim; *Mr. J. Wynne.*

CARDAMINE Linn.

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

Districts 1 2 3 4 5 6 7 8 9 10 11 12

Lat. 51°–56°. Throughout Ireland.

Type in Great Britain, British.

Shady places and waste ground; common. *Fl.* May, June.

Ranges from sea-level to 1200 feet in Derry.

*C. sylvatica* (Link).

Districts 1 2 - 4 5 6 - - 9 10 11 12

Woods and moist shady places; less common than *C. hirsuta*, but will probably be found to occur in nearly every county.

There can be little doubt that *C. sylvatica* is the plant recorded under the name of "*C. impatiens*," as growing at Shane's Castle (Phytologist, O. S., Vol. v., p. 185).

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

Districts 1 2 3 4 5 6 7 8 9 10 11 12  
 Lat. 51°-56°. Throughout Ireland.

Type in Great Britain, British.

Damp meadows and marshy places; common. *Fl.* April, May.

3. *C. amara* (Linn.)—*Common Bitter Cress*.

Districts - - - - - 10 - 21  
 Lat. 54°-55°. North-east of Ireland.

Type in Great Britain, British, inclining to Germanic.

Wet meadows and borders of streams; very rare. *Fl.* May, June.

10. Derryloan grave-yard, near Cookstown, Tyrone; *Flor. Ulst.*—12. Banks of the Lagan, near Belfast (Mr. D. Orr), *Flor. Ulst.* and *Flor. Belf.* Wet meadows near Toombridge, and in Castle Dawson demesne, by the side of the Mayola, Derry; *D. M.*

\* † *Hesperis matronalis* (Linn.), *Dame's Violet*, occurs occasionally in fields and waste places, but only as an escape from cultivation. ‡ - - - 4 - - - - 9 - - - See Su

*SISYMBRIUM* Linn.

1. *S. officinale* (Scop.)—*Hedge Mustard*.

Districts 1 2 3 4 5 6 7 8 9 10 11 12.  
 Lat. 51°-56°. Throughout Ireland.

Type in Great Britain, British.

Waste places, banks, and roadsides, &c.; common. *Fl.* June, July.

2. † *S. Irio* (Linn.)—*London Rocket*.

District - - - - 5 - - - - -  
 Lat. 53°-54°. East of Ireland—County of Dublin only.

Type in Great Britain, English.

Waste places, roadsides, walls, &c.; very local. *Fl.* May to July.

5. Common about Dublin, Glasnevin, and Clontarf.

3. *S. Sophia* (Linn.)—*Flixweed*.

Districts - 2 - 4 5 - - - - - 12

Lat. 52°-55°. East side of Ireland.

Type in Great Britain, English, inclining to British.

Waste places, sandy banks, &c.; rare. *Fl.* June to August.

2. By the Suir, near Clonmel; *Mr. T. Anderson* (in *Bot. Gaz.*) not seen by *Mr. Carroll*. Passage, Waterford (specimen seen); *Miss S. Grubb*.—4. Murrough of Wicklow; *D. M.*—5. A single specimen near Ballitore; *Mr. T. N. Cole*. It grows among rubbish, and upon some of the low thatched cabins at the end of *New-street*, near Black-pits; *Threlkeld* (1726). About Dublin, Glasnevin, Kilbarrock, Portmarnock, &c.; *D. M.* By the road to Slieve Gullion, three miles from Dundalk; *Flor. Ulst.*—12. Near Carrickfergus; *Flor. Ulst.*

Cheiffy near towns, and in cultivated ground.

4. *S. thalianum* (Gaud.)—*Thale Cress*.*Arabis thaliana* (Linn.).

Districts 1 2 - 4 5 6 7 8 - - 11 12

Lat. 51°-56°. From South to North of Ireland.

Type in Great Britain, British, inclining to English.

Dry banks, rocks, walls, &c.; local and rather rare. *Fl.* April, May.

## ALLIARIA Adans.

1. *A. officinalis* (Andrz.)—*Jack-by-the-Hedge*.*Erysimum Alliaria* (Linn.).

Districts 1 2 3 4 5 6 7 - 9 10 11 12

Lat. 51°-56°. From South to North of Ireland.

Type in Great Britain, British, inclining to English.

Hedges and shady places; rather rare and local. *Fl.* May, June.

Apparently rare or wanting in several of the western and midland counties. Local in Ulster. Abundant about Dublin. Rare near Cork.

\*†*Erysimum cheiranthoides* (Linn.) has been found two or three times near Cork; and a few specimens were gathered near Ballitore, Kildare, in 1856; but there is no doubt that the plant was introduced, and it has since disappeared.‡

See p. 10 Supp.

[*E. orientale* (R. Br.) has also been once or twice found by Mr. John Morrison, on waste ground near Enniscorthy; and in flax fields near Dingle, Kerry, by Professor C. C. Babington.]

## BRASSICA Linn.

1. † *B. oleracea* (Linn.)—*Wild Cabbage*.

Districts — (2) — — — — — — — — — — (12)  
 Lat. 51° 52°. South coast of Ireland? A doubtful native.  
 Type in Great Britain, Atlantic.

Cliffs and stony beaches by the sea; very rare. *Fl.* May, June.

2. On cliffs near Youghal, sparingly, and probably an outcast from a Garden; *Drummond*. Perhaps introduced in this locality; *I. C.*—12. Among stones on the beach in the Island of Rathlin; *Flor. Ulst.* Probably an escape from cultivation in both these stations. "*Brassica marina anglica*," noticed by Dr. Smith as growing on the coast of Cork, will be found quoted under *Crambe maritima*.

[*Brassica campestris* (Linn.), *B. Rapa* (Linn.), *Turnip* and *B. Napus* (Linn.), *Rape*, are occasionally seen growing in fields and waste ground, on hedge-banks, and also along river sides, in places where the seeds have been conveyed by floods; but they are not native plants.]

*Obs.*—*B. monensis* (R. Br.) was included in the "Irish Flora" on the faith of Lightfoot's locality, the Scottish island of Arran.

## SINAPIS Linn.

1. † *S nigra* (Linn.)—*Black Mustard*.

*Brassica nigra* (Boiss.) Benth.

Districts 1 2 — ~~4~~ (5) 6 — — — — — — — — — — ~~12~~  
 Lat. 51°—53° or 56°. Perhaps native in the South of Ireland.  
 Type in Great Britain, English.

Banks near the sea, and in cultivated land, waste places, &c.; rare. *Fl.* June to August.

1 and 2. By the sea near Cork, rather general; *Flor. Cork*. Abundant near Queenstown, &c., and appears indigenous; *I. C.*—4. Near Blackstones, Wicklow; *D. M.*—5. Portmarnock sands, and fields near Chapelizod; *Mackay Cat. Ir.*

About Rush, Skerries, Swords, Finglas, and Glasnevin, in corn and potato fields; *Ir. Flor.*—12. At Falls Road; and Carrickfergus; *Flor. Ulst.* Under hedges, near Kilrea, Derry; *D. M.*

2. *S. arvensis* (Linn.)—*Charlock*.

*Brassica Sinapistrum* (Boiss.) Benth.

Districts 1 2 3 4 5 6 7 8 9 10 11 12

Lat. 51°–56°. Throughout Ireland.

Type in Great Britain, British.

Cultivated ground and waste places; common. *Fl.* May to August.

From sea-level to 600 feet in Derry.

3. *S. alba* (Linn.)—*White Mustard*.

*Brassica alba* (Boiss.) Benth.

Districts 1 2 3 4 5 6 7 8 9 10 11 12

Lat. 51°–54°.—South and Middle of Ireland.

Type in Great Britain, English, inclining to British.

Cultivated fields, especially on a calcareous soil; local, and rather rare. *Fl.* June, July.

1 and 2. Near Cork; *Flor. Cork* and *I. C.*—2. Near Glanworth, Kilcrumper, and Fermoy, rare; *Mr. T. Chandlee*. In Waterford, *I. C.*—4. Near Bray, &c., in Wicklow; *D. M.*—5. At Portmarnock, and about Dublin; *Flor. Hib.* Ballitore, frequent; *I. C.* Straffan, Kildare; *Mr. J. Douglas*.—6. Near Castle Taylor, Galway; *A. G. M.*—8 and 9. Near Foxford, Mayo (perhaps sown with the crops); *A. G. M.*

*DIPLOTAXIS* De Cand.

1. † *D. muralis* (D C.)—*Wall Mustard*.

*Sinapis muralis* (Br.), *Brassica muralis* (Boiss.) Benth.

Districts 1? 2 - - 5 - - - - -

Lat. 51° or 52°–54°. East coast of Ireland.

Type in Great Britain, English.

Sandy banks, fields, and waste places near the sea; very rare. *Fl.* June to August.

1.? On the strand by the Lower Glanmire Road (Mr. Alexander); *Flor. Cork*. Probably an error; *I. C.* Ardmore, Waterford, on the cliffs and sand; *Mr. J. Cooke*.—5. Sandy



banks at Baldoy! plentiful; *D. M.* By the sea at Portmarnock, in considerable quantity; *Mr. T. Chandlee.*

This plant does not appear to have been noticed near Dublin by the older botanists. First found at Portmarnock in 1837, it has rapidly increased since that date.

[*Diplotaxis tenuifolia* (D C.)—In August, 1840, Professor C. C. Babington gathered a single plant “somewhere near the harbour” at Westport, Mayo, where the seed had probably been accidentally introduced.]

[*Alyssum calycinum*\* (Linn.) and “*A. minimum*” are recorded by Mackay (*Addenda*) as having been found on a sandy bank near the farm-house at Portmarnock, in 1817; and again in a sandy field near the same place in 1837. We believe that both names, and also “*Clypeola Jonthlaspi*,” of Mackay’s “Catalogue,” refer to the same species, which has not been recently observed, and was, no doubt, introduced in this locality.] \* see p. 11. *Supp.*

+ ———— DRABA Linn.

1. *D. incana* (Linn.)—*Twisted-podded Whitlow-grass.*

Districts 1 - - - - - 8 9 - - 12  
Lat. 51°-56°. South-west, North-west, and North of Ireland.  
Type in Great Britain, Highland.

Mountain rocks, also on sandhills by the sea; rare, and very local. *Fl.* June, July.

1. Cliffs on Macgillicuddy’s Reeks, Kerry; *Flor. Hib.*—  
9. Abundant on limestone cliffs on Kesh Corran, Sligo, nine miles north-west of Boyle; *Mr. F. J. Foot.* Glenade, Leitrim; *Admiral Jones.* On Ben Bulben, and other mountains in Sligo; *Flor. Hib.* On sandhills near Ben Bulben; *D. M.*—12. On Ben Evenagh, and on sandhills at Magilligan, Derry; *D. M.*

From sea-level at Magilligan, and in Sligo, to 1100 feet on Ben Evenagh (*D. M.*) and 1200 feet on Ben Bulben; *Flor. Ulst.*

2. *D. verna* (Linn.)—*Common Whitlow-grass.*

Districts 1 2 3 4 5 6 7 8 9 - 11 12  
Lat. 51°-56°. From South to North of Ireland.

Type in Great Britain, British.

Walls, banks, rocks, dry pasture, &c.; frequent. *Fl.* March, April.

Not common, but appears to be widely distributed. Especially abundant in the Burren district of Clare, and on sandhills near the sea.

[*D. muralis* (Linn.)—A single plant was found “in the walls of Blarney Castle,” by Mr. Drummond, but the species has not been re-discovered in this locality. Dr. Power mentions a wall at Evergreen, and the wall of the Mathew Cemetery, to which the seed was no doubt conveyed from the old Botanic Garden. Dr. Dickie notices it as naturalized upon old walls about Belfast, &c., where, also, it has probably escaped from cultivation.]

### COCHLEARIA Linn.

1. *C. officinalis* (Linn.)—*Common Scurvy-grass*.

Districts 1 2 3 4 5 6 - 8 - - 11 12

Lat. 51°–56°. Coasts of all Ireland.

Type in Great Britain, British.

On rocks, and muddy places near the sea; common; also, (*var. alpina*) on mountains. *Fl.* May, June.

*Var. β alpina* (*C. grælandica*, Sm.)

1. Brandon Mountain, Kerry; *D. M.* On the top of Hungry Hill, *Drummond*.—2. On the Galtee Mountains, Tipperary; *D. M.*—9. On Ben Bulbin; *Flor. Ulst.*—12. On Ben Evenagh, Derry; *D. M.*

Ranges from sea-level (*C. officinalis*) to 2500 feet (*var. alpina*).

*C. danica* (Linn.)—*Danish Scurvy-grass*.

*C. officinalis var.* Brit. Flor. and Bentham.

Districts 1 2 - 4 5 6 - 8 9 - - 12

Lat. 41°–56°. Coast, from South to North of Ireland.

Type in Great Britain, British.

On rocks, banks, and on roofs near the sea; not common. *Fl.* May, June.

1. On Cape Clear and Innisherkin; on roofs at Kinsale, &c.; *Flor. Cork*.—2. On rocks and walls near Middleton, &c., and along the coast of Cork in abundance; *Flor. Cork*. On roofs at Corkbeg; *Flor. Hib.*—4. Bray Head; *A. G. M.*—

5. "Salt marshes?" below the Dublin Custom House; *Flor. Hib.* Between Clontarf and Howth; *Ir. Flor.*—8. On roofs at Galway; *D. M.* Connemara; *I. C.*—9. Sligo Bay; *Flor. Ulst.*—12. Shore of Belfast Lough, near Macedon, at Portaferry and Castle Ward, Larne, Glenarm, and Horn-head; *Flor. Ulst.* At Skerries, Portrush, and Downhill, in Derry; *D. M.*

Some of the above localities may belong to *C. officinalis*, to which *C. danica* is at least very closely allied. Mr. Syme places *C. danica* and *C. grœnlandica* (our *var. alpina*) as a subspecies under *C. officinalis*; while he keeps *C. anglica* as a distinct species. *C. danica* seldom grows in salt marshes.

## 2. *C. anglica* (Linn.)—*English Scurvy-grass.*

*C. officinalis* var. Bentham.

Districts 1? 2? - 4 5 6? - - - 10? - 12

Lat. 51°-56°. South, East, and North coasts of Ireland.

Type in Great Britain, English.

Muddy estuaries and sea shores; very rare. *Fl.* May, June.

1.? On the shore at Bantry; *Flor. Cork.* River-side below Cork; *Drummond.* Not found by Mr. Carroll.—2.? Middleton; *Flor. Cork.*—5. Banks of the Dodder; *Flor. Hib.* ~~By the railway on the South side of Killiney Hill;~~ *D. M.*—12.? Shore between Belfast and Carrickfergus (Mr. Millen); *Flor. Ulst.* Belfast to Holywood; *Flor. Belf.* (not found by Dr. Dickie). At the mouth of the river Roe, and of the Foyle in Derry; *D. M.*, who is not quite sure of the species.

Some of these localities probably belong to *C. officinalis*.

## ARMORACIA Rupp.

### 1. *A. amphibia* (Koch)—*Water Radish.*

*Nasturtium amphibium* (R. Br.) *Flor. Hib.*

Districts - 2 - 4 5 6 7 8 9 10 11 12

Lat. 52°-56°. In many parts of Ireland.

Type in Great Britain, English.

Watery places, river sides, &c.; rather local. *Fl.* June to August. Rare in the south.—2. Fermoy, but rare; *Mr. T. Chandlee.*—4. Ditches in the Murrough of Wicklow; *D. M.*

Frequent on the borders of lakes and rivers in the middle and north of Ireland.

[*Armoracia rusticana* (Rupp.), *Horse Radish*, occurs occasionally in waste ground, but is not native.]

[*Camelina sativa* (Crantz) and *C. fastida* (Fries) are frequently found growing as weeds among flax; but there is no doubt that they are unintentionally sown with the crop.]

### THLASPI.

1 † *T. arvense* (Linn.)—*Penny Cress*.

Districts 1 - 3 4 5 6 - - - 10 - 12

Lat. 51°-56°. East of Ireland, chiefly.

Type in Great Britain, British, inclining to English.

Cultivated land and roadsides; very rare. *Fl.* May to Aug.

1. At Ardagh, near Rosscarbery; *Flor. Cork*.—3. Side of the road between Ballybracken and Kilkenny; *Flor. Hib.* Near Freshford, Kilkenny; *Rev. S. Madden*. Clonmore Castle, Carlow; *Mr. T. Chandlee*.—4. Murrough of Wicklow; *D. M. Bray*, "et alibi copiose;" *Wade, Dubl.*—5. Dundrum; *D. M.* South side of the Hill of Howth; *Flor. Hib.* Glasnevin, Finglas, Blackpits, Raheny; *Ir. Flor.* Clogher Head, Louth; *Mr. J. Ball*.—6. In the Great island of Arran, in Galway Bay; *Prof. Melville*.—10. Loughgall, Armagh; *A. G. M.*—12. Near Dundrum, county Down; *Flor. Hib.* Newcastle and Donaghadee Pier; *Flor. Ulst.* Belfast; Ballycastle; Red Bay; *Flor. Ulst.* At the base of Umbra Rocks, Derry; *D. M.* Magilligan; *Prof. E. Murphy*. By the side of the Crumlin river, near Lough Neagh; *D. M.* Railway bank at Glenavy; *Mr. S. A. Stewart*.

[*Hutchinsia petraea* (R. Br.) still grows on the walls of the Mathew Cemetery at Cork, formerly a Botanic Garden, where it has been known as naturalized for many years. See *Flor. Cork*.]

### LEPIDIDIUM Linn.

1. *L. campestre* (R. Br.)—*Common Pepper-wort*.

Districts 1 2 3 - 5 - - - - 10 - 12

Lat. 51°-56°. South, East, and North of Ireland.

Type in Great Britain, British, inclining to English.

Cultivated fields and way-sides; rare. *Fl.* June to Aug.

1. Near Cork; *Drummond*. Not seen by *I. C.*—2. Near Youghal; *Flor. Cork*. Near Clonmel; *Miss S. Grubb*.—3. Near "The Rocks," Kilkenny; *Rev. S. Madden*. One mile west of Carlow; *Mr. John Sim.*—5. Banks of the canal, near Blanchardstown, Dublin; *the late Mr. Johnston*. Abundant in cultivated fields near Dundrum, Dublin; *Mr. D. Orr*. Near Collon, Belpatrick, Summerhill, and Mullaghconlan, county Louth; *Ir. Flor.*—10. Lough-gall and Tartaraghan, county Armagh; *A. G. M.*—12. Newcastle, county Down; *Flor. Ulst.* Near Drumbo, Ballinahinch, and Kinnegar; at Giant's Ring, Belfast, and near Ballycarry; at Largy, on shore of Lough Neagh; *Flor. Ulst.* Near Lough Neagh, from Antrim to Glenavy river; *D. M.*

2. *L. Smithii* (Hook.)—*Smooth-podded Pepper-wort*.

Districts 1 2 3 4 5 - - - - 10 - 12  
 Lat. 51°-56°. From South to North of Ireland.

Type in Great Britain, British, inclining to English.

Hedge banks, road sides, and borders of fields; rather rare. *Fl.* May to August.

1 Killarney; *C. C. B.*—1 and 2. Throughout the county of Cork; *Flor. Cork*. In Waterford; *I. C.* In Tipperary; *Miss S. Grubb*.—3. Kilmacow, Kilkenny; *Mr. T. Chandlee*.—4. In Wicklow, about Bray, Enniskerry, &c.; *A. G. M.*—5. Ballitore, Kildare; *I. C.* In Dublin, Dundrum, Howth, &c., frequent; *D. M.*—10. In Armagh; *Flor. Ulst.*—12. Warrenpoint; *Flor. Hib.* Greencastle; *Ir. Flor.* Knock, county Down; *Flor. Belf.* Portstewart; *Flor. Ulst.* About Belfast, &c.; *Flor. Ulst.* Near Carrickfergus and Ballymena, Antrim; near Coleraine, and by the river Roe, in Derry; *D. M.*

Often found in suspicious stations, near mills, &c.

3. *L. latifolium* (Linn.)—*Dittander*.

Districts 1 2 - - - - -  
 Lat. 51°-52°. South of Ireland—Kerry and Cork only.

Type in Great Britain, English, inclining to Germanic.

Salt marshes and damp places near the sea; very rare. *Fl.* July to September.

1. Near the head of Kenmare river; *Smith's "Kerry."*

Abundant near Kinsale; *Prof. E. Murphy*.—2. Corkbeg, on the east side of Cork harbour; *Smith's "Cork."* Still plentiful at Corkbeg; *I. C.* Spike Island; *Flor. Cork.* In the parish of Kinsalebeg, near the east side of Youghal harbour; *Smith's "Waterford."* Possibly the remains of ancient cultivation.

[*Lepidium ruderales* (Linn.)—By the Suir, near Clonmel, on the south side of the river; *Mr. T. Anderson* (in *Bot. Gaz.*) On the North Wall, Dublin; *Wade Rar.* Sea shore opposite Kilbarrock church (Dr. Osborne); *Flor. Hib.* The plant has not been recently found near Dublin, and it seems possible that *Senebiera didyma* (Pers.) has been mistaken for it in some, if not all, of these localities.]

#### CAPSELLA Vent.

##### 1. *C. Bursa-pastoris* (D. C.)—*Shepherd's Purse*.

Districts 1 2 3 4 5 6 7 8 9 10 11 12

Lat. 51°–56°. Throughout Ireland.

Type in Great Britain, British.

Waste places and cultivated ground; very common. *Fl.* April to September.

#### SUBULARIA Linn.

##### 1. *S. aquatica* (Linn.)—*Awl-wort*.

Districts 1 - - 4 - 6 - 8 - 10 11 12

Lat. 51°–56°. From South to North of Ireland.

Type in Great Britain, Scottish.

Shallow margins of lakes, chiefly in mountainous districts; rare. *Fl.* July, August.

1. Lakes at the Gap of Dunloe; *Mackay Rar.* In Guogaunbarra Lake, Cork; *Prof. Harvey*.—4. Luggielaw, and Upper Lough Bray; *Mackay Rar.*—6. Between Miltown and Kilkee, in Clare; *D. M.*—8. Lake near the half-way house to Roundstone; *D. M.* Lakes at Ballinahinch, Connemara; *Mackay Rar.* Lake on Mweelrea mountain, Mayo, fifteen hundred feet above the sea; *Flor. Hib.*—10. In Lough Neagh, county Armagh; *D. M.*—11. In Lough Carban, north-west of the Gap of Barnesmore, Donegal; *Prof. E. Murphy*.—12. In the canal at Newry; *Flor. Ulst.* Plentiful along the shores of Lough Neagh, between the Lagan Canal

and Portmore. At Selchin, and near the Creagh bog; *D. M.* Lough Neagh, at Ballinderry; *Flor. Ulst.* Below the salmon-leaps above Coleraine; *Flor. Ulst.* In Lough Neagh, near Moyra (Dr. Sherard), *Raii Synopsis*, Ed. 2 (1706); at that date the only locality known in the British isles.

Ranges from 20 feet at Coleraine to 1500 feet in Mayo.

*SENEBIERA* Pers.

1. † *S. Coronopus* (Poiret)—*Swine's Cress.*

*Coronopus Ruellii* (Sm.) *Flor. Hib.*

Districts 1 2 3 4✓ 5 6 - 8 9 10 11 12

Lat. 51°-56°. From South to North of Ireland.

Type in Great Britain, English, inclining to British.

Waste ground and road sides, especially near the sea; rather local. *Fl.* June to September.

Rare in the western and midland counties, and usually found near towns and houses, as well as along the public roads.

2. † *S. didyma* (Pers.)—*Lesser Swine's Cress.*

*Coronopus didyma* (Smith) *Flor. Hib.*

Districts 1 2 3 4 5 6 - 8 - - - (12)

Lat. 51°-54°. South Ireland—chiefly near the coast.

Type in Great Britain, Atlantic.

Road sides and waste places; very local. *Fl.* July to September.

1 and 2. In many parts of the county Cork; *Flor. Cork.* Frequent on the coast of Cork; *I. C.*—2. Near the mill at Fermoy, rare; *Mr. T. Chandlee.* Tramore, Waterford; *I. C.* Plentiful near Clonmel; *Miss S. Grubb.*—3. Road sides near Carlow; *Mr. John Sim.*—4. New Ross, Wexford; *Mr. J. Morrison.*—5. At the foot of walls and by roadsides about Dublin; *Mr. D. Orr.*—6. Miltown Malbay and Corrofin, Clare; *A. G. M.* Near Ennis, by the road to Ennistymon, abundantly; *Rev. T. Warren.*—8. About the town of Galway; *Prof. Melville.*—(12). Recently introduced with ballast at Ballyliff quarries, near Larne; *Mr. S. A. Stewart.*

Chiefly in the neighbourhood of harbours, towns, and houses, and has apparently increased rapidly near Cork since 1819, when Mr. Drummond knew of only a single locality.

[*Isatis tinctoria* (Linn.) is rarely found as a weed among crops, and sometimes continues for a few years in fields where it has been cultivated, but is not thoroughly naturalized.]

*CAKILE* Gaert.

1. *C. maritima* (Scop.)—*Sea Rocket*.

Districts 1 2 - 4 5 6 - 8 9 - 11 12

Lat. 51°–56°. Round all the coast of Ireland.

Type in Great Britain, British.

Sandy sea-shores; common. *Fl.* June, July.

*CRAMBE* Linn.

1. *C. maritima* (Linn.)—*Sea Kale*.

Districts 1 - - 4 5 6 - - - - 11 12

Lat. 51°–56°. South, East, West, and North coasts of Ireland.

Type in Great Britain, English.

Sandy and stony sea shores; very rare. *Fl.* June.

1. On the strand near Bantry; *Drummond*. By Douglas Channel, near Lakelands; *Flor. Cork*. On the shores of Cloghnikelty Bay, and other places on the sea coast; *Smith's "Cork"* (sub *Brassica marina anglica*).—5. Merrion, Dunleary, and near Warren House, on the way to Howth; *Wade Dubl.* South side of Howth; *Ir. Flor.* Sandy coast between Portmarnock and Malahide; *Flor. Hib.* "It is found on our shore, and is in request as a kale;" *Rutty* (1772). Upon the sea beach near Dunleary; *Threlkeld* (1726). Now nearly extinct.—6. Isles of Arran, in Galway Bay; *Prof. Melville*.—11. On Tory Island, Donegal (Mr. Hyndman); *Flor. Ulst.* At Nonvany point in the parish of Clonmary, Donegal! *Mr. Charles Moore*.—12. At Church Bay, Island of Rathlin (Mr. Templeton); *Flor. Ulst.*

*RAPHANUS* Linn.

1. *R. Raphanistrum* (Linn.)—*Wild Radish*.

Districts 1 2 3 4 5 6 - 8 9 10 11 12

Lat. 51°–56°. Throughout Ireland.

Type in Great Britain, British.

Cultivated fields, especially on a sandy soil; frequent. *Fl.* June to August.



2. *R. maritimus* (Sm.)—*Sea Radish*.*R. Raphanistrum* var. Bentham.

Districts - - - 4 5 6 - 8 9 - 11 12

Lat. 53°-56°. East, West, and North coasts of Ireland.

Type in Great Britain, Atlantic.

Sea cliffs and sandy shores; rare. *Fl.* July to September.5. South side of Howth, sparingly; *Flor. Hib.* and *D. M.*—6. Great Island of Arran, in Galway Bay; *D. M.*—8. At Roundstone, Connemara; *Prof. Oliver.*—9. Coast between Sligo and Ballina; *Mr. J. Ball.*—11. Shore at Innishowen Head; *Flor. Ulst.*—12. Abundant on the Curran of Larne; *D. M.* and *Flor. Ulst.* Sparingly at Carnlough Bay, Antrim; *D. M.* Rathlin Island (Miss C. Gage); *I. C.*

## ORDER VI.—RESEDACEÆ.

*RESEDA*—Linn.1. † *R. lutea* (Linn.)—*Wild Mignonnette*.

Districts - 2 - 4 5 6 - - - - 12

Lat. 51°-54°. South and East of Ireland.

Type in Great Britain, English, inclining to Germanic.

Banks, waste places, and sandy fields; very rare, and perhaps introduced in all the stations. *Fl.* June to August.2. Sandy bank by the Bride, above Castlelyons; *Flor. Cork.* Above the bridge at Dungarvan, Waterford; *Flor. Cork.* Fairy Hill, county Waterford; *Miss A. Taylor.*—4. Near Enniscorthy, Wexford; *Mr. J. Morrison.*—5. Sandy-mount; *Wade Dubl.* Near Chapelizod; *Flor. Hib.* On chalky soil beyond Knockmaroon hill, on the way to Lucan; *Ir. Flor.* Castlenock; *D. M.* Sandy fields near Malahide, probably introduced; *D. M.* Abundant in the sandy fields about Rush; *Ir. Flor.* Road side between Oldcastle and the Abbey of Fore; *Flor. Hib.*—12. Introduced with ballast at Ballyligg quarries, near Larne, Antrim; *Mr. S. A. Stewart.*

2. *R. Luteola* (Linn.)—*Weld*.

Districts 1 2 3 4 5 6 7 8 9 10 11 12  
 Lat. 51°–56°. Throughout Ireland.

Type in Great Britain, British, inclining to English.

Banks and waste places; frequent. *Fl.* June to August.

[*Reseda suffruticulosa* (Linn.) has been observed occasionally about Cork, Dublin, and Belfast, &c., in places where it has evidently escaped from cultivation.]

## ORDER VII.—CISTACEÆ.

*HELIANTHEMUM* Gaert.1. *H. canum* (Dun.)—*Hoary Rock-rose*.

District - - - - - 6 - - - - -  
 Lat. 53°–54°. West of Ireland—Clare and Arran Isles only.  
 Type in Great Britain, intermediate, inclining to Atlantic.

On limestone rocks; very rare. *Fl.* May to July.

6. In the large Island of Arran! in Galway Bay; *Mr. L. Ogilby*. On limestone crags at Glanquin, in Burren, Clare! *Rev. T. Warren*. Plentiful on the coast north-east of Poul-sallagh, Clare; *Mr. F. J. Foot*.

2. *H. guttatum* (Mill.)—*Spotted Rock-rose*.

District 1 - - - - -  
 Lat. 51°–52°. South-west of Ireland—County of Cork only.  
 Type, Hibernian. Not found in Great Britain.<sup>1</sup>

Banks by the sea; very rare. *Fl.* June to August.

1. At Three-Castle-Head, Carbery; (*Miss Harriett Townsend*); *Flor. Cork*. *Mr. Chandlee* reports it as rather plentiful in this locality, where it extends over several acres.

First found in Ireland by *Miss Townsend*, previous to 1843.

*Obs.*—*H. vulgare* (Gaert.) is stated to occur on limestone hills near Castlemore, Muskery (*Smith*), and on Cape Clear Island; *Flor. Cork*. In the latter station *Mr. Carroll* could

<sup>1</sup> Unless *H. Breweri* (Planchon), found in Anglesea, be considered a variety of the same species

not find any *Helianthemum* ; but *H. canum* or *H. guttatum* are as likely to occur in either of these localities as *H. vulgare*. The "*H. vulgare*" of Flor. Hib. is now well understood to have been *H. canum*.

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ORDER VIII.—VIOLACEÆ.

*VIOLA* Linn.

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

Districts 1 2 - 4 5 6 7 8 9 10 11 12  
 Lat. 51°-56°. Throughout Ireland.

Type in Great Britain, British.

Bogs and marshes ; frequent. *Fl.* April, June.

Chiefly in the mountainous districts, and more abundant in the West and North of Ireland.

Ranges from sea-level to 600 feet in Derry.

2. † *V. odorata* (Linn.)—*Sweet Violet*.

Districts 1 2 3 4 5 - - - - 10 - 12  
 Lat. 51°-56°. Perhaps native in the East of Ireland.

Type in Great Britain, English.

Woods, hedges, banks, and roadsides, usually near houses ; rare, and a doubtful native. *Fl.* March, April.

Occurs here and there in the Counties of Cork, Waterford, Tipperary, Carlow, Wexford, Queen's County, Wicklow, Dublin, Westmeath, Louth, King's County, Cavan, Armagh, Down, Antrim, and Derry. Possibly native in some of the eastern counties. Mr. Carroll considers it introduced in Cork, but possibly native near Athy, Kildare ; and Mr. R. Mallet describes it as growing on old hedge-banks for a distance of several miles along the road between Castlecomer and Athy. Mr. John Morrison, of Enniscorthy, finds *Viola odorata*, with both white and blue flowers, on the roadsides near Newtownbarry, Wexford ; abundantly along roadsides in Carlow ; and in various parts of the Queen's County, between Carlow and Mountmellick, and considers it indigenous in these localities. Miss S. Grubb also reports the sweet violet

as quite wild on a bank bordering a field at Mountmellick, and informs us that it has been found growing on a roadside hedge along the Cork road, about a mile from Clogheen, Tipperary.

3. *V. hirta* (Linn.)—*Hairy Violet*.

Districts 1? - - - 5 6# - - - - - 12?

Lat. 53°-54°. East of Ireland—? Dublin only.

Type in Great Britain, English.

Sandy pastures, banks, and bushy places; very rare. *Fl.* April.

1.? In a wood at Blarney, and near Evergreen; *Flor. Cork*; but not seen in the county by Mr. Carroll or Mr. Drummond.—5. Sandy shore at Raheny! *Wade Dubl.* Plentiful on banks by the sea between Clontarf and Kilbarrock Church! and on sand-hills and banks at Portmarnock! *Flor. Hib.* East side of Howth; Knockmaroon Hill, on the road to the Strawberry Banks; and side of a glen in the Phoenix Park; *Ir. Flor.*—6.? On the Great Island of Arran, in Galway Bay; *Mackay Rar.*—12.? In a plantation at Fort William, on the side of the road from Forth River to Black Mountain, and in the graveyard near Shane's Castle; *Flor. Ulst. Suppl.* (excluded by Dr. Dickie as probably not indigenous).

There is reason to fear that *Viola odorata* has been mistaken for *V. hirta* in Cork and Arran—perhaps also in Antrim.

4. *Viola sylvatica* (Fries)—*Dog-Violet*.

*V. canina* (Linn.), Bentham, and *Flor. Hib.*

Districts 1 2 3 4 5 6 7 8 9 10 11 12

Lat. 51°-56°. Throughout Ireland.

Type in Great Britain, British.

Woods, banks, and pastures; common. *Fl.* April, May.

*V. Reichenbachiana* (Bor.) has been found at Castle Taylor, Galway, and at Powerscourt, Wicklow (*A. G. M.*), and in Colin Glen, near Belfast! (*Mr. S. A. Stewart*), but appears to be less frequent in Ireland than *V. Riviniana* (Reich).

Ranges from sea-level to 2500 feet on Slieve Donard (*Flor. Ulst.*).

5. *V. canina* Linn. (Fries)—*Heath Violet*.

*V. flavicornis*, Smith; *V. pumila*, Brit. Flor.; *V. lactea*, Smith and Flor. Hib.

Districts 1 - - 4 5 6 - 8 9 10 - 12

Lat. 51°-56°. From South to North of Ireland.

Type in Great Britain, British, inclining to English.

Sandy and heathy places, and on the shores of lakes; rare. *Fl.* April, June.

1. Brandon Mountain; *Flor. Hib.* Mountains near Castletown (*V. lactea*); *Flor. Hib.* Gap of Dunloe? (*V. stagnina*); *Rev. W. M. Hind.* Mountains near Bantry (*V. lactea*); *Flor. Cork.*—4. On the Murrough of Wicklow; *D. M.*—5. Sandhills at Portmarnock! and Portrane! *D. M. and A. G. M.*—6. By the lake at Garryland, Galway! *A. G. M.*—8. Shores of Lough Cullin and of Lough Conn, Mayo; *A. G. M.*—9. Shores of Lough Carra, Mayo; *A. G. M.*—10. Shores of, and islets in, Lough Neagh, county Armagh; *A. G. M.*—12. On the shores of Lough Neagh, near Crumlin; *Mr. S. A. Stewart.* On the links at Newcastle; *Flor. Ulst.* Slieve Gullion (*Rev. W. T. Whan*); *Flor. Ulst.*

6. *V. stagnina* (Kit.)—*Pale Dog-Violet*.

*V. canina* var. Bentham; *V. stricta*, Bab. (in A. N. H.).

District - - - - - 6 - - - - -

Lat. 53°-54°. West of Ireland—Galway only.

Type in Great Britain, English.

Damp stony places, and boggy pasture-ground overflowed in winter; very rare. *Fl.* June.

By the lake in Garryland Wood, near Gort, and on the borders of several of the "turloughs" in that vicinity; *A. G. M.*

In *The Phytologist* (N.S., Vol. ii., p. 24), the Rev. W. M. Hind has recorded his finding *Viola stagnina* in the Gap of Dunloe, Killarney. We have not seen his specimens, but we suppose this is the same Violet as that found on the mountains of Brandon, Castletown, and Bantry, and which, for the present, we have placed under *V. canina* (see *Flor. Hib.*, p. 32).

7? *V. lutea* (Huds.)—*Mountain Pansy*.

*V. tricolor* var. Benth.

Districts 1 - - - 5 6 - 8 - - - 12?

Lat. 52°-55°. West, East, and perhaps North-east of Ireland.

Type in Great Britain, Scottish.

Upland pastures, and sand-hills by the sea; very rare.  
*Fl.* June, July.

1. Mountains near Castletown (Mr. Drummond); *Flor. Cork*.—5. On the Hill of Lyons, Dublin; *D.M.*—6. On the ascent towards the Cliffs of Moher, Clare; *A. G. M.* Sand-hills of Dough and Ballingaddy, Clare; *Wade, Rar.* On the sand-hills at Miltown Malbay, and at Lahinch (this comes near *V. Curtisii*, but its stipules are those of *V. lutea*); *A. G. M.*—8. Sandhills at Roundstone, Connemara; *I. C.*—12. On the shore of Lough Neagh, near Shane's Castle (this rather than *V. tricolor*); *D. M.*

Range from sea-level to about 700 feet in Clare.

8.? *V. Curtisii* (Forst.)—*Sea Pansy*.

*V. lutea* var. Bab. *V. tricolor* var. Benth. *V. Symei*, Baker.

Districts 1 2 - 4 5 6 - 8 9 - 11 12?

Lat. 51°-56°. South and West coasts of Ireland.

Type in Great Britain, Atlantic.

Sand-hills on the coast; local. *Fl.* June to August.

1. Sand-hills on the shore near Brandon, Kerry! *D. M.* Valentia, Kerry (this or *V. lutea*); *Rev. S. Madden*. Strand near Kinsale (*V. lutea*); *Drummond*.—2. Sands at Ballycotton and Youghal; *Flor. Cork*. Tramore, Waterford; *Rev. S. Madden*.—9. Sandhills at Iniscrone, on Killala Bay; *Mr. B. St. George*. Mullaghmore, Sligo (*V. Symei*)! *Mr. J. T. B. Syme*.—11. Sand-hills at Malin, Donegal, and at Dunfanaghy (*V. lutea*); *Flor. Ulst.*—12.? Belfast; Links at Newcastle, &c.; *Flor. Ulst.* Some of these localities may belong to *V. lutea* or *V. tricolor*.

The *V. Curtisii* of the west coasts of Ireland is much larger than any examples which we have seen from the sand-hills of North Devon, Anglesea, and Cheshire.

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

Districts 1 2 3 4 5 6 7 8 9 10 11 12  
 Lat. 51°-56°. Throughout Ireland!

Type in Great Britain, British.

Sandy and heathy places, and cultivated land; frequent.  
*Fl.* May to August.

The large flowered typical form of the plant is rather rare.

*Var. β arvensis.*

Not unfrequent in cultivated land.

*Var. γ maritima (V. Curtisi, Mackay).*

5. On the sandhills at Portmarnock, Baldoyle, Malahide, Portrane, &c., near Dublin (see *Flor. Hib.*)—12. In the counties of Down and Derry; *Mr. J. Ball*.

Mr. Syme places both *Viola lutea* and *V. Curtisi* as subspecies under *V. tricolor*, and there is no doubt often great difficulty in separating these three plants.

## ORDER IX.—DROSERACEÆ.

*DROSERA* Linn.1. *D. rotundifolia* (Linn.)—*Round-leaved Sun-dew*.

Districts 1 2 3 4 5 6 7 8 9 10 11 12  
 Lat. 51°-56°. Throughout Ireland.

Type in Great Britain, British.

Bogs, and moist heathy ground; common. *Fl.* July, Aug.  
 Ranges from sea level to about 1000 feet in Wicklow.

2. *D. intermedia* (Hayne)—*Long-leaved Sun-dew*.

*D. longifolia* (Linn.)—Brit. Flor. Flor. Hib.

Districts 1 ✓ - - - 5? 6 - 8 9 10 H 12  
 Lat. 51°-55°. West of Ireland chiefly.

Type in Great Britain, English.

Bogs, especially in the west of Ireland. *Fl.* July, August.

1. Killarney; *C. C. B.* South Cork only; *I. C.*—5.  
 In county Dublin; *Wade Dubl.* Bogs of Ardee and Cool, Louth; *Ir. Flor.*—10. On a mountain near Florence-court,

Fermanagh; *Flor. Hib.*—12. Foot of the Mourne mountains; *Ir. Flor.* Birky moss (Mr. Templeton), Moyntagh bogs (Mr. Hyndman), but very rare in the north of Ireland; *Flor. Ulst.* Frequent in districts 6, 8, and 9.

3. *D. anglica* (Huds.)—*Great Sun-dew*.

Districts 1 2 3 - 5 6 7 8 9 10 11 12  
 Lat. 51°-56°. From South to North of Ireland.

Type in Great Britain, Scottish.

Spongy bogs; common in the west and north, rare elsewhere. *Fl.* July, August.

1. Frequent in Kerry; *Mackay Rar.* Bogs near Castle-town, Berehaven; and in west Cork only; *Flor. Cork.*—3. Plentifully in a bog by Edenderry (Mr. Heaton); *How Phytol. Brit.* (1650).—5. On the bog by Isaactown, Meath (Mr. Sherard); *App. to Threlkeld.* Narraghmore bog, Kildare; *I. C.*—7. Balreagh bog, Westmeath; *Miss E. Reynall.* Frequent in districts 6, 8, 9, 10, 11, and 12.

*Var. β obovata* (*D. obovata* M. et K.).

12. On Slogan bog, near Randalstown, Antrim! *D. M.* This is by some botanists supposed to be a hybrid between *D. anglica* and *D. rotundifolia*.

*PARNASSIA* Linn.

1. *P. palustris* (Linn.)—*Grass of Parnassus*.

Districts - 2 3 4 5 6 7 8 9 10 11 12  
 Lat. 52°-56°. All Ireland, except the extreme South.

Type in Great Britain,

Boggy places, damp pastures, and sandhills by the sea; not unfrequent. *Fl.* August, September.

Rare in the south, and apparently not found in the counties of Kerry and Cork. Occurs near Clonmel, in Tipperary and Waterford; *Miss S. Grubb.* Along the railway in Tipperary; *Prof. Harvey.* In several places in Kilkenny; *Rev. S. Madden* and *Mr. T. Chandlee.* Though not a common species, it is frequent throughout the middle and north of Ireland.



## ORDER X.—POLYGALACEÆ.

*POLYGALA* Linn.1. *P. vulgaris* (Linn.)—*Milk-wort*.

Districts 1 2 3 4 5 6 7 8 9 10 11 12

Lat. 51°–56°. Throughout Ireland.

Type in Great Britain, British.

Dry pastures and banks; frequent. *Fl.* May to August.*P. depressa* (Wend.).

Districts 1 - - - - - - - - - - 10 - 12 ✓

1. Very common in boggy ground in the south of Ireland; *Mr. J. Woods*.—12. At Clough, in Antrim; *Rev. A. C. Hassé*. Probably frequent in boggy and heathy ground throughout the country.

Ranges from sea-level to about 2000 feet on Errigal (*Flor. Ulst.*)

We have reason to believe that some form of *P. vulgaris* was mistaken for *P. calcarea* (F. Schultz), said to have been found on the ascent to Divis mountain, near Belfast. (See *Flor. Ulst.*, p. 17.)

## ORDER XI.—ELATINACEÆ.

*ELATINE* Linn.1. *E. hexandra* (D. C.)—*Hexandrous Water-wort*.

Districts 1 - - - - - 6 - - - - - 12

Lat. 51°–56°. West and North of Ireland, chiefly.

Type in Great Britain, English.

Margin of lakes and ditches; rare. *Fl.* July, August.

1. Plentiful in a small lake by the roadside near Bantry (probably this species); *Drummond* (sub *E. Hydropiper*).—6. Between Miltown Malbay and Kilrush; *Mr C. Carter*. Abundant in pools on Dunbeg bog, Clare: *D. M.*—11. In Lough Erigh, between Doochary-bridge and Glenties; *Flor. Ulst.*—12. Border of Castlewellan lake, Down; *Flor. Hib.* MacAuley's lake, near Ballinahinch; *Mr. S. A. Stewart*. In Lough Beg; and in the river Bann, near Coleraine; *D. M.* In Enagh lough, near Derry; *D. M.* On Rathlin Island (*Miss C. Gage*); *I. C.*

2. *E. Hydropiper* (Linn.)—*Octandrous Water-wort*.

District - - - - - 12

Lat. 54°-55°. North-east of Ireland.

Type in Great Britain, English.

Margins of lakes and canals; very rare. *Fl.* August.

12. In the canal at Newry; *Flor. Ulst.* In the Lagan canal, between Lough Neagh and the first bridge; *Flor. Ulst.* In the Lagan canal, close to Lough Neagh, and in Lough Neagh, a little north of the canal; *D. M.* Near Belfast; *Flor. Ulst.*

## ORDER XII.—CARYOPHYLLACEÆ.

*SAPONARIA* Linn.1. \* *S. officinalis* (Linn.)—*Soap-wort*.

Districts ✓1 2 3 4. 5 ✓6 7 8 - - 11 12

Banks, hedges, sides of rivers, and waste places, usually near houses, and no doubt an escape from cultivation. *Fl.* July, August.

Thoroughly established in many different parts of the country.

*SILENE* Linn.1. *S. anglica* (Linn.)—*English Catch-fly**S. gallica* (Linn.) Bentham.

Districts 1 2 3 4 5 - - 8 - - 11 12

Lat. 51°-56°. From South to North of Ireland.

Type in Great Britain, English.

Cultivated fields, mostly on a sandy soil; rare. *Fl.* June to August.

1. Field near Castletown, Berehaven; *Drummond*.—1 and 2. Little Island, near Cork; *Flor. Cork*.—3. Near Carlow; *Mr. J. Morrison*.—4. Ballyconigar, and at Curacloa, Wexford, plentiful; *I. C.*—8. Oughterard, Galway; *C. C. B.*—11. In county Donegal; *Mackay* (*App. to "Frazer's Guide"*).—12. Fields by the shore about Kilkeel; *Wade Rar.* At Greencastle, Down; *Ir. Flor.* Newcastle, Down; *Rev. W. M. Hind* and *Flor. Ulst.* Sandy fields at Benone, Magilligan, Derry; *D. M.*

2. *S. inflata* (Sm.)—*Bladder Campion*.Districts 1 2 3 4 5 6 7 8 9 10 **H** 12

Lat. 51°–56°. Throughout Ireland.

Type in Great Britain, British, inclining to English.

Cultivated fields, hedge banks, and road-sides; frequent.  
*Fl.* June to August.3. *S. maritima* (With.)—*Sea Campion*.*S. inflata* var. Bentham.

Districts 1 2 - 4 5 6 - 8 9 - 11 12

Lat. 51°–56°. Round all the coast of Ireland.

Type in Great Britain, British.

Shingly and rocky sea shores; common also on mountains.  
*Fl.* June to August.1. Abundant on the shores of the Lakes of Killarney; *I. C.*  
—8. On the summit of "the Reek" (Croagh Patrick); *Dr.*  
*P. Browne* (under *S. montana*). Mountains in Connemara;  
*Mackay Rec.*—9. On Ben Bulbin, &c.; *Flor. Hib.*—11. Errigal;  
*Flor. Ulst.*Ranges from sea-level to 1200 feet in Derry, and 1500 feet on Errigal. *Flor. Ulst.*[*S. conica* (Linn.) was found, in 1837, in sandy cultivated ground at Portmarnock, near Dublin, in which locality it was probably introduced with the crops, and is believed to have since disappeared. Mr. J. Sullivan has also seen it growing among corn on Little Island, near Cork, but considers it hardly naturalized.][*S. Armeria* (Linn.) has been found by the river Roe, in Derry; and also in Clare (*Flor. Hib.*) and Cork; *I. C.*, but only in places where the seeds had been accidentally carried.]4. † *S. noctiflora* (Linn.)—*Night-flowering Catch-fly*.

Districts - - - - - 7 - - - - 12

Lat. 53°–55°. Centre and North-east of Ireland.

Type in Great Britain, English.

Sandy cultivated fields and banks; very rare. *Fl.* July, August.7. Field near Tullamore, King's County, found by Miss Green; *Mackay Addit.*—12. At a railway cutting near the base of one of the "drumlins" or eskers, between Belfast

and Lisburn; *D. M.* In a sand pit at the cross-roads half-a-mile from Lisburn, on the road to Lurgan; *D. M.*

5. *S. acaulis* (Linn.)—*Cushion Pink*.

Districts - - - - - 9 - 11 12

Lat. 54°-56°. North and North-west of Ireland.

Type in Great Britain, Highland.

Rocks and cliffs on mountains; very local. *Fl.* July, August.

9. Limestone cliffs of Ben Bulbin, &c., Sligo; *Flor. Hib.* Also in the county of Leitrim; *the late Mr. J. Wynne*.—11. At Dunaff Head, Donegal! *Mr. C. Moore*.—12. On trap rocks on Ben Evenagh, near Magilligan, Derry; *D. M.*

From 1000 to 1200 feet on Ben Evenagh.

[*Dianthus plumarius* (Spreng.) was found by Mr. J. Drummond, in an old quarry at Blackrock; and on the cliffs of Hop Island, Cork. Smith had previously recorded its occurrence on the walls of an old castle in the market place of Kinsale; and Mr. Drummond saw it still growing on some old houses near the site of the old castle. Dr. Mackay has left a note to the effect that it is common on the town wall of Youghal. In all these localities it is merely an escape from cultivation.]

[*D. deltoides* (Linn.) was gathered in 1837, near Dunscombe's Wood, Cork, but was, no doubt, introduced, and appears to have become extinct.]

*LYCHNIS* Linn.

1. *L. Flos-cuculi* (Linn.)—*Ragged Robin*.

Districts 1 2 3 4 5 6 7 8 9 10 11 12

Lat. 51°-56°. Throughout Ireland.

Type in Great Britain, British.

Boggy pasture, moist meadows, &c.; common. *Fl.* May, June.

From sea-level to 500 feet in Derry.

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

*L. dioica* var.  $\beta$ . *Flor. Hib.*

Districts 1 2 3 4 5 - - - - - **H** 12

Lat. 51°-55°. South and East of Ireland.

Type in Great Britain, British, inclining to English.

Cultivated ground and adjoining banks; local. *Fl.* June to August.

Very rare in the north-east of Ireland, and not ascertained to grow in any of the midland or western counties.

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

*L. dioica* var. *a.* Flor. Hib.

Districts 1 2 3 4 5 - 7 - 9 10 11 12

Lat. 51°-56°. From South to North of Ireland.

Type in Great Britain, British.

Hedges and woods; frequent, but rather local. *Fl.* May, June.

Rare about Cork, as well as in the west of Ireland generally, and not yet found west of the Shannon.

From sea-level to 1000 feet in Derry.

4. *L. Githago* (Lam.)—*Corn Cockle*.

*Agrostemma Githago* (Linn.) Brit. Flor. and Flor. Hib.

Districts 1 2 3 4 5 6 7 8 9 10 11 12

Lat. 51°-56°. Throughout Ireland.

Type in Great Britain, British.

Cultivated fields, often sown with the crop; frequent. *Fl.* June to August.

*SAGINA* Linn.

1. *S. procumbens* (Linn.)—*Procumbent Pearl-wort*.

Districts 1 2 3 4 5 6 7 8 9 10 11 12 .

Lat. 51°-56°. Throughout Ireland.

Type in Great Britain, British.

Waste ground, damp, grassy, or boggy places; common. *Fl.* May to September.

From sea-level to 1400 feet in Derry, and 2500 in Wicklow.

2. *S. apetala* (Linn.)—*Annual Pearl-wort*.

*S. procumbens* var. Bentham.

Districts 1 2 3 4 5 6 7 - - 10 - 12

Lat. 51°-56°. Throughout Ireland.

Type in Great Britain, English, inclining to British.

Dry banks, walls, pastures, &c.; frequent. *Fl.* May to July.

*S. ciliata* (Fries.)

Districts - - - 4 5 6 - - - - 12

Banks and walls near the sea; apparently rare in Ireland.

5. Walls near the sea, about Dublin; *A. G. M.* Banks above Howth (*S. filiformis*); *Mr. J. Ball.*—6. Near Moerne Head, Clare! *D. M.*—12. Ballycastle, Antrim! *Rev. W. W. Newbould*, and *C. C. B.*

3. *S. maritima* (Don)—*Sea Pearl-wort.*

*S. procumbens* var. Bentham.

Districts 1 2 - 4 5 6 - 8 9 - 11 12

Lat. 51°–56°. Round all the coast of Ireland.

Type in Great Britain, British.

Banks, rocks, and moist pastures, near the sea; frequent. *Fl.* May to August.

4. *S. subulata* (Wimm.)—*Awl-leaved Pearl-wort.*

*S. Linnæi* (Presl.) Bentham. *Spergula subulata* (Swartz).

Districts 1 - - - - 6 - 8 - - H 12

Lat. 51°–56°. West and North of Ireland, chiefly.

Type in Great Britain, Scottish, inclining to British.

Elevated pastures, and banks near the sea; rare. *Fl.* June to August.

1. Plentiful on Brandon mountain, Kerry; *D. M.* Near the telegraph on Bear Island; *Drummond* (under *Spergula saginoides*). On mountains near Bantry (*Miss Hutchins*); *Flor. Hib.* (probably this rather than *Mænchia*, which is preserved under the name of "*Spergula saginoides*," in *Dr. Mackay's Herbarium*.) About Derry, Rosscarbery; *Flor. Cork.*—6. Cliffs of Moher, Clare! *I. C.* Near Kilmoran, South Isles of Arran; *Prof. Oliver.*—8. On Lettery mountain, Connemara; *Wade Gallovid.* Near Roundstone; *Prof. Oliver.* Connemara; *Flor. Hib.*—12. Isle of Muck, and Island Magee; *Flor. Ulst.* Fairhead; Island of Rathlin; and Portrush; *D. M.*

Ranges from sea-level in Rathlin to 2000 feet on Brandon.

5. *S. nodosa* (E. Meyer)—*Knotted Spurrey*.*Spergula nodosa* (Linn.) Flor. Hib.

Districts 1 2 3 4 5 6 7 8 9 - 11 12

Lat. 51°-56°. Throughout Ireland.

Type in Great Britain, British.

Moist sandy places, and in marshes; frequent. *Fl.* July, August.*HONKENEJA* Ehrh.1. *H. peploides* (Ehrh.)—*Sea Purslane*.*Arenaria peploides* Linn.

Districts 1 2 - 4 5 - - 8 9 - 11 12

Lat. 51°-56°. Round the whole coast of Ireland.

Type in Great Britain, British.

Sandy sea-shores; frequent. *Fl.* June, July.*ALSINE* Wahl.1. *A. verna* (Jacq.)—*Spring Sand-wort*.*Arenaria verna* (Linn.)—Brit. Flor. and Bentham.

Districts - - - - 6 - - 9 - - 12

Lat. 53°-56°. West and North of Ireland, near the coast.

Type in Great Britain, Intermediate, inclining to Scottish.

Rocky places; very local. *Fl.* May to August.

6. Between Lunenagh Castle and Kilferna, Clare; *Flor. Hib.* On the coast at Black Head, abundantly; *A. G. M.* Common in Burren; *Mr. F. J. Foot.* Great Island of Arran; *D. M.*—9. About Cong, Mayo; *Dr. P. Browne* (under *Arenaria saxatilis*). In the county of Sligo [probably on Ben Bulbin]; *the late Mr. J. Wynne.*—12. Rocks at Carlingford Castle, Antrim; *Flor. Ulst.* In the low glens near Ballinbeg; *Ir. Flor.* On the mountains of Lurgedon, Sillagh Braes, Agnew's Hill, and in glens adjacent, Antrim; on the mountains of Benbradagh and Ben Evenagh, and on Umbra rocks, Magiligan, Derry; *D. M.* On trap rocks, along the coasts of Antrim and Derry; on limestone in Burren and Sligo.

*Mr. Syme* refers the Arran plant to *var β Gerardi*; and the specimens from Cushendall, Antrim, appear to be the same.

Ranges from sea-level in Clare to 1300 feet in Derry.

*ARENARIA* Linn.

1. *A. trinervis* (Linn.)—*Three-nerved Sand-wort*.  
*Mœhringia trinervia* (Clairv.)

Districts 1 2 3 4 5 - 7 8 9 10 - 12

Lat. 51°–55° or 56°. From South to North of Ireland.

Type in Great Britain, British, inclining to English.

Shady places; rather rare. *Fl.* May, June.

A scarce plant in the west and north of Ireland.

Ranges from about sea-level to 300 feet in Derry.

2. *A. serpyllifolia* (Linn.)—*Thyme-leaved Sand-wort*.

Districts 1 2 3 4 5 - - 8 - - 11 12

Lat. 51°–56°. From South to North of Ireland.

Type in Great Britain, British.

Sandy and gravelly places, walls, &c.; frequent, especially near the coast. *Fl.* June to August.

*Var. β leptoclados* (*Arenaria leptoclados*, Guss.)

5. On a wall at Merrion, near Dublin; and 6. At Castle Taylor, Galway; *A. G. M.* Probably not unfrequent.

3. *A. ciliata* (Linn.)—*Fringed Sand-wort*.

District - - - - - 9 - - -

Lat. 54°–55°. North-west of Ireland—Sligo only.

Type, Hibernian. Not found in Great Britain.

Limestone cliffs; very rare. *Fl.* June, July.

9. On Sea-Fin and Ben Bulben, Sligo; *Flor. Hib.* Near Lobiermot Cave, above Glen Gorragh, on Ben Weiske, Sligo; *C. C. B.* Abundant on Ben Bulben, and other mountains in Sligo; *Flor. Ulst.* First found by Dr. Mackay in September, 1806.

Ranges from 1000 feet to the summit of Ben Bulben (1722 feet); *Flor. Ulst.*

*STELLARIA* Linn.

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

Districts 1 2 3 4 5 6 7 8 9 10 11 12

Lat. 51°–56°. Throughout Ireland.

Type in Great Britain, British.

Waste places, cultivated ground, &c.; very common. *Fl.* March to September.



Var.  $\beta$  *S. Borœana* (Jord.) *S. apetala* (Bor.) *Alsine pallida* (Dum.)

5. On the sand-hills at Portrane and Portmarnock; *D. M.* and *A. G. M.*

The variety  $\gamma$  *neglecta* (*S. neglecta*, Weihe.) is believed to occur in Antrim, &c., but we have not been able to examine any specimens.

Range from sea-level to 2200 feet in Derry.

## 2. *S. Holostea* (Linn.)—*Greater Stitch-wort.*

Districts 1 2 3 4 5 - 7 8 9 10 11 12  
Lat 51°-56°. Throughout Ireland.

Type in Great Britain, British.

Woods and hedges; frequent. *Fl.* May, June.

From sea-level to 300 feet in Derry.

## 3. *S. glauca* (With.)—*Marsh Stitch-wort.*

Districts - - - 4 5 6 - 8 9 - - -  
Lat. 51°-54°. East, West, and Centre of Ireland.

Type in Great Britain, English, inclining to British.

Bogs and marshes; rare. *Fl.* June, July.

4. Plentiful in Glencree, between Enniskerry and Bray; *Flor. Hib.* Murrough of Wicklow, and wet slopes of the Dublin Mountains; *D. M.*—5. Curragha Bog, Dublin; *Wade Rar.* Tinure and Rathbran Bogs, near Collon, Louth; *Ir. Flor.* Rathangan Bog, Kildare; *Mr. P. M'Arde.*—6. Portumna, Galway; *D. M.*—8. Renvi (Renvyle), Connemara; *Wade Rar.*—9. Knockview, Roscommon; *Rev. S. Madden.* Hollymount, Mayo; *A. G. M.*

## 4. *S. graminea* (Linn.)—*Lesser Stitch-wort.*

Districts 1 2 3 4 5 6 7 8 9 10 - 12  
Lat 51°-56°. Throughout Ireland.

Type in Great Britain, British.

Heathy and bushy places; common. *Fl.* May to July.

5. *S. uliginosa* (Murr.)—*Bog Stitch-wort*.

Districts 1 2 3 4 5 6 7 8 9 10 11 12  
 Lat. 51°–56°. Throughout Ireland.

Type in Great Britain, British.

Watery places; common. *Fl.* May to July.

Range from sea-level to 600 feet in Derry, and probably much higher.

*Obs.*—*Malachium aquaticum* (Fries) is supposed to have been gathered on the banks of the Lee, near Cork (*Flor. Hib.* and *Flor. Cork.*), but no recent botanist has succeeded in rediscovering it, and we fear there has been a mistake.

*CERASTIUM* Linn.1. *C. glomeratum* (Thuil.)—*Broad-leaved Mouse-ear*.

*C. vulgatum* (Sm.), Brit. Flor. and Bentham.

Districts 1 2 3 4 5 6 - 8 9 10 - 12  
 Lat. 51°–56°. Throughout Ireland.

Type in Great Britain, British.

Pastures, banks, and fields; common. *Fl.* April to June.

As with many other common plants, we have no authority for the occurrence of this species in Districts 7 and 11.

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

*C. viscosum* (Sm.), Brit. Flor. *C. vulgatum* var. Bentham.

Districts 1 2 3 4 5 6 - 8 9 10 - 12  
 Lat. 51°–56°. Throughout Ireland.

Type in Great Britain, British.

Pastures, banks, walls, and waste places; common. *Fl.* May to August.

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

*C. vulgatum* var. Bentham.

Districts 1 2 - 4 5 - - 8 9 10? 11 12  
 Lat. 51°–51°. Round all the coast of Ireland.

Type in Great Britain, British.

Sandy ground near the sea; frequent. *Fl.* May to July.

Restricted almost entirely to the neighbourhood of the coast, but occurs on the shores of Lough Conn, Mayo, *A. G. M.*; and Lough Neagh, *D. M.*; also on dry boggy ground near Hollymount and Foxford, Mayo; *A. G. M.*

4. *C. semidecandrum* (Linn.)—*Little Mouse-ear*.*C. vulgatum* var. Bentham.

Districts 1 2 - 4 5 - - 8 - 10? 11 12

Lat. 51°-56°. From South to North of Ireland.

Type in Great Britain, British, inclining to English.

Sand-hills and dry places near the sea; apparently rare, but probably overlooked in many places. *Fl.* April, May.

1 and 2. Near Cork and Middleton; *Flor. Cork*.—4 and 5. Common on the sand-hills of Wicklow and Dublin; *D.M.*—8. On the west side of Galway; *Prof. Melville*.—9. Mullaghmore, Sligo; *Admiral Jones*.—11. Sand-hills near Ardara, Donegal; *A.G.M.*—12. Shores of Lough Neagh, and sand-hills on the coast of Derry; *D.M.*

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

Districts 1 2 - - 5 6 - 8 - - - 12?

Lat. 51°-55°. South, West, and East coasts of Ireland.

Type in Great Britain, British, inclining to English.

Sandy banks, and among rocks, chiefly near the sea, and very local. *Fl.* May to July.

1. On the Blasquet Islands, Kerry; *Mr. W. Andrews* (*var. strictum*).—2. By the shore at Ballyvodock, Middleton; *Flor. Cork*.—5. About Kilbarrock, Baldoye, Portmarnock, and Rush; *Ir. Flor.* Between Clontarf and Howth; *Flor. Hib.*—6. Frequent in the Burren district of Clare; *Mr. F. J. Foot*. South shores of Galway Bay; *A. G. M.* Great Isle of Arran (*var. strictum*); *Mr. W. Andrews*.—8. To the west of Galway, near the shore; *Prof. Melville*.—12.? Greencastle, Down; *Ir. Flor.*

*Obs.*—*Cerastium trigynum* (Vill.), *Stellaria cerastoides* (Linn.) is stated to have been found on "High mountains near Bantry, rare (Miss Hutchins);" *Mackay, Cat. Ir.*; and "On a high mountain near Bantry (Miss Hutchins);" *Flor. Hib.*; but has not been re-discovered by any other botanist since Miss Hutchins; and in Scotland it is one of the most alpine species, belonging exclusively to the "super-arctic zone" of Watson, with its lower limit at 2700 feet on Ben Nevis. It is, however, common on the higher Pyrenees, and as there

are specimens in Dr. Mackay's Herbarium correctly named, we trust that some effort will be made to re-discover this interesting plant, which is a truly alpine species. The search should be made on the mountains between Glengariff and Hungry Hill, or on Brandon.

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ORDER XIII.—MALVACEÆ.

*MALVA* Linn.

1. *M. moschata* (Linn.)—*Musk Mallow*.

Districts ✓1 2 3 4 ✓5 - 7 - - 10 - 12  
 Lat. 51°-56°. From South to North of Ireland.

Type in Great Britain, British, inclining to English.

Dry banks, way sides, and borders of fields; rare. *Fl.*  
 July, August.

1 and 2. Rather rare, and only on limestone soils, about Cork; *Flor. Cork*—2. Rare near Clonmel; *Mr. T. Chandlee*. South Tipperary; *Miss S. Grubb*.—3. In Kilkenny, several localities; *Wade Rar.*, &c.—4. About Enniscorthy and Wexford; *Rev. S. Madden*. Near Enniskerry; *Flor. Hib.* On the Murrough of Wicklow; *D. M.*—5. In Kildare; *Mr. F. Haughton*. Two miles north of Dundalk; *Flor. Ulst.*—7. Ballyduff, King's County; *Ir. Flor.* Between Moate and Athlone; *Wade Rar.*—10. Tandragen; *Flor. Ulst.*—12. Gilford and Holywood, Down; *Flor. Ulst.* Templepatrick; Lurgan; along the Bann; Ballyroan and Moneymore; *Flor. Ulst.* Gravel pit at Shane's Castle, and by the Crumlin River, Antrim. By the roadside near Downhill, Derry, along with the white variety; often an escape from gardening in the north of Ireland; *D. M.* Road-sides near Holywood, but not native; *Mr. D. Orr*. Apparently wanting on the west side of the Shannon. No doubt introduced in some of the above localities.

Ranges from 40 to 300 feet in Derry.

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

Districts 1 2 3 4 5 ✓ 6 7 8 9 10 11 12  
 Lat. 51°–56°. Throughout Ireland.

Type in Great Britain, British.

Hedge-banks, waysides, and borders of fields; frequent. ✓  
*Fl.* June to August.

Probably sometimes an escape from cultivation, being frequently grown in cottage gardens.

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

Districts 1 2 3 4 5 6 - 8 - - - 12  
 Lat. 51°–56°. From South to North of Ireland.

Type in Great Britain, English, inclining to British.

Waste places, especially near the sea; rather rare. *Fl.*  
 June to September.

Scarce in the west and north, and perhaps introduced in some of the stations.

## ALTHÆA Linn.

1. *A. officinalis* (Linn.)—*Marsh Mallow*.

Districts 1 2 - - (5) 6 - 8 - - - -  
 Lat. 51°–54°. South and West coasts of Ireland.

Type in Great Britain, English.

Salt marshes; rather local. *Fl.* August, September.

1. Cape Clear Island; *Drummond*. Coast near Kilbrittain; *I. C.*—2. Castlemartyr; *Flor. Cork*. Cable Island, near Youghal Harbour; *Smith's "Cork."* In many salt marshes in Cork; *Wade Rar.* Strand at Kilfarasy, Waterford; *Miss A. Taylor*.—(5). On the road to Cardiff's Bridge, near Cabragh, Dublin; *Wade Rar.* (doubtless introduced).—6. Plentiful in salt marshes about the Shannon and Fergus rivers; *Wade Rar.* Dunbeg, Clare; *D. M.* Roadside between Lahinch and Miltown; *Flor. Hib.* Roadsides between Loophead and Miltown Malbay, but nearly always by cottages; *I. C.*—8. Old Head, south side of Clew Bay, Mayo; *Miss S. Grubb*.

An escape from cultivation in many places.

## LAVATERA Linn.

1. † *L. arborea* (Linn.)—*Tree Mallow*.

Districts 1 2 - - 5 6 - 8 - - 12

Lat. 51°–56°. Coasts from South to North of Ireland.

Type in Great Britain, Atlantic.

Cliffs by the sea; rare, and usually near houses or gardens.  
*Fl.* July to September.

1. Near Dingle; *Flor. Hib.*—1 and 2. In South and North Cork, doubtfully indigenous; *I. C.* Cable Island, Youghal; *Smith's "Cork."* Strand at Ballycotton; *Drummond*. Whitepoint, Cove; coast near Ballymacotter Castle, Cloyne, in all the stations sparingly; *Flor. Cork*. Coast of Waterford, but probably an escape from gardens; *I. C.*—5. On Ireland's Eye, opposite Howth; *Wade Rar.* Killiney Hill; *Mr. J. Ball* and *I. C.*—6. Cliffs at Spanish Point, Clare; *Mr. C. Carter*. Cliffs on the South Isles of Arran; *Flor. Hib.*—8. Abundantly on Galway Bay; *Wade Rar.* On *old walls* near the harbour of Galway; *Flor. Hib.*—12. Coast at Newcastle, Down; *Flor. Ulst.* Carrick-a-Rede, near Ballintoy; and on a high rock at west end of the Island of Rathlin; *Flor. Ulst.* Naturalized near Ballintoy; and on the Curran of Larne, Antrim; *D. M.*

The plant is commonly cultivated in cottage gardens near the coast, whence the seeds may have spread to many, if not all, of these localities.

## ORDER TILIACEÆ.

[*Tilia europæa* (Linn.), *T. grandifolia* (Ehrh.), and *T. parvifolia* (Ehrh.), are seen occasionally in copses, parks, plantations, hedges, and about houses; but only in situations where they have evidently been planted.]

## ORDER XIV.—HYPERICACEÆ.

## HYPERICUM Linn.

1. *H. Androsæmum* (Linn.)—*Tutsan*.

Districts 1 2 3 4 5 6 7 8 9 10 11 12

Lat. 51°–56°. Throughout Ireland.

Type in Great Britain, English, inclining to British.

Bushy and rocky places; frequent. *Fl.* July, August.

Though not a common plant is very widely distributed in Ireland, and ranges from 50 to 350 feet in Derry.

[*H. elatum* (Ait.), *Brit. Flor.*; *H. anglicum* (Bert.) Bab. Man., is naturalized in the plantation above Donard Lodge, Down; *British Flora* (Ed. 8) and *Flor. Ulst.* It is recorded to have been gathered also near Galway by Professor Balfour.]

[*H. hircinum* (Linn.) is thoroughly established on walls by the road under Lota Wood, Glanmire, Cork; *I. C.* We have seen specimens collected by Dr. Balfour in this locality. Mr. Carroll has also seen it near Monkstown; and between Aghada and Cloyne.]

[*H. calycinum* (Linn.) is now abundant on Dinis Island, and is thoroughly naturalized in the woods at Mucruss, Killarney; near Enniscorthy, Wexford; at Powerscourt, Wicklow; and in many places in the county of Cork. "Several plants were discovered near Ballymaloe, in the barony of Imokilly, remote from any garden," about a hundred and twenty years ago; see *Smith's "Cork,"* p. 355.]

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

Districts 1 2 3 4 5 6 7 8 9 10 11 12  
Lat. 51°–56°. Throughout Ireland.

Type in Great Britain, British, inclining to English.

In wet and marshy places; common. *Fl.* July, August.

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

Districts 1 2 3 4 5 6 7 8 9 10 11 12  
Lat. 51°–56°. Throughout Ireland.

Type in Great Britain, British.

Woods and bushy places; frequent. *Fl.* July, August.

Rare in some parts, as about Cork, and described by Dr. Dickie as very local in Ulster, though found by *D. M.* to be not unfrequent in many parts of Derry. The variety *H. lineolatum* (Jord.) has been gathered on the banks of the Moy, in Mayo, by *A. G. M.*

Ranges from sea-level to 1200 feet in Derry.

4. *H. dubium* (Leers.)—*Imperforate St. John's-wort*.

Districts 1 2 3 4 - 6 - - - - 12  
 Lat. 51°-55°. South to North of Ireland.

Type in Great Britain, English, inclining to British.

Thickets and ditch sides; rather rare. *Fl.* July, August.

1. Killarney; *C. C. B.*—1 and 2. Common in South and North Cork; *Flor. Cork* and *I. C.* Frequent about Fermoy; *Mr. T. Chandlee*. In Waterford, near Clonmel; *Miss S. Grubb*.—3. Near Innistoyogue, Kilkenny; *Flor. Hib.* Between Cullenagh and Stradbally; *Flor. Hib.* Near Maryborough, Queen's County; *Rev. S. Madden*.—4. Roadside between Powerscourt gate and the Lower Dargle gate; *Flor. Hib.*—6. At Castle Taylor; Garryland; and Kilmacduagh, Galway; *A. G. M.*—12. Abundant on the links north from Newcastle; *Flor. Ulst.* Near Antrim; *Flor. Ulst.* Banks of the Lagan, near Belfast! *Mr. S. A. Stewart*; Frequent about Belfast; *Mr. D. Orr*.

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

Districts 1 2 3 4 5 6 7 8 9 10 11 12  
 Lat. 51°-56°. Throughout Ireland.

Type in Great Britain, British, inclining to English.

Heaths and dry banks; frequent. *Fl.* July, August.

Ranges from sea-level to 1000 feet, and probably higher.

6. *H. hirsutum* (Linn.)—*Hairy St. John's-wort*.

Districts - - - - 5 - - - - 12  
 Lat. 53°-54°. East of Ireland—Dublin and Antrim.

Type in Great Britain, British, inclining to English.

Woods and thickets on a limestone soil; very rare. *Fl.* July, August.

5. Plentiful at the Salmon Leap, near Leixlip! and at Woodlands; *Flor. Hib.* Santry; and banks of the canal from Dublin to Robertstown; *Ir. Flor.*—12. At Macedon Point, near Belfast; *Flor. Hib.*, and *Mr. S. A. Stewart*. Hedge side of second field behind the White House; *Flor. Belf.*

The Rev. S. Madden believes that he found *H. hirsutum* at Glanleem, Valentia, Kerry; a locality which it is desirable to verify before extending the range of the plant so far.



7. *H. montanum* (Linn.)—*Mountain St. John's-wort.*

District - - - - - 12

Lat. 54°-55°. North-east of Ireland—Down only.

Type in Great Britain, English.

"Bushy limestone hills;" very rare. *Fl.* July, August.12. On Mallagh Hill! in the County of Down, about eight miles east of Belfast; *Mr. D. Orr.*

Mr. Orr perfectly recollects finding the plant in this locality, and he has shown us a specimen which he gathered in 1841.

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

Districts 1 2 3 4 5 6 7 8 9 - 11 12

Lat. 51°-56°. Throughout Ireland.

Type in Great Britain, British.

Heaths, dry banks, woods, &c.; frequent. *Fl.* June, July.

Ranges from sea-level to 1500 feet in Derry.

9. *H. elodes* (Linn.)—*Marsh St. John's-wort.*

Districts 1 2 3 4 5 6 - 8 9 - 11 12

Lat. 51°-56°. From South to North of Ireland.

Type in Great Britain, English, inclining to Atlantic.

Spongy bogs; not unfrequent, but local. *Fl.* July to September.

Rare in Derry and Antrim, and in the east of Ireland generally; much more frequent in the west.

## ORDER XV.—ACERACEÆ.

*ACER* Linn.1. *A. campestre* (Linn.)—*Maple.*

Districts (1) (2) - - 5 - - - - 10 - 12

Lat. 53°-55°. East and North of Ireland.

Type in Great Britain, English.

Hedges and woods; rare in the wild state. *Fl.* May.1 and 2. Hedges and plantations near Cork (not indigenous); *I. C.* and *Flor.* Cork.—5. Narraghmore Wood,

near Ballitore, not wild; *I. C.* Hedges about Ballycullen, Dublin; *Flor. Hib.* Wild in hedges about Glasnevin and Ballymun, near Dublin; *D. M.*—10. Hedges about Loughgall, Armagh; *A. G. M.*—12. Island of Ballydonell; On the shore of Lough Neagh; and quite wild on the north bank of the Agivey river, near Castle Dawson, Derry; *D. M.* Hedge by the road side in the townland of Craigywarren, Antrim; *Mr. C. Moore.*

Threlkeld, writing in 1726, describes "*Acer minus*" as "common in every hedge" about Dublin.

2. \* *A. Pseudo-platanus* (Linn.)—*Sycamore.*

Districts 1 2 3 4 5 - - - - 10 - 12  
Plantations, hedges, and banks of rivers, &c.; frequent, but not native. *Fl.* May, June.

Naturalized by the sides of several rivers in Derry and Antrim.

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ORDER XVI.—GERANIACEÆ.

*GERANIUM* Linn.

1. *G. sylvaticum* (Linn.)—*Wood Crane's-bill.*

District - - - - - 12  
Lat. 54°-56°. North-east of Ireland—Antrim and Down only.  
Type in Great Britain, Scottish, or Intermediate.

Woods and shady rocks; very rare. *Fl.* June, July.

12. About the Giant's Causeway, &c.; *Flor. Hib.* Little Deer Park at Glenarm; woody mountains about Knapper and Cairn Castle, and about Ballinleg, Antrim; *Ir. Flor.* Dunluce Castle, Antrim; *Prof. E. Murphy.* Woods at Glenarm; *D. M.* Murlough, near the town of Antrim; and in a small den about Holywood; *Flor. Ulst.* Hedge side, Fall's Road, near Anderson's town; *Flor. Belf.*

2. *G. pratense* (Linn.)—*Meadow Crane's-bill.*

District - - - - - 12  
Lat. 55°-56°. North-east of Ireland—Antrim only.  
Type in Great Britain, British, inclining to English.

Calcareous rocks and banks; very rare. *Fl.* June to August.

12. Abundant at White Park, Ballintoy, Antrim; *D. M.* Road side near Ballycastle, Antrim; *Miss S. Grubb.* Recorded as found also at Dunluce (Mr. Templeton) and at Port Ballintrae (Mr. Hyndman) *Flor. Ulst.*; but we suspect that both the latter stations belong to *G. sylvaticum.*

3. *G. sanguineum* (Linn.)—*Bloody Crane's-bill.*

Districts - - - 4 5 6 - 8 9 - - 12

Lat. 53°-56°. West, East, and North of Ireland.

Type in Great Britain, British, or Intermediate.

Rocky and stony places, chiefly near the coast; local. *Fl.* June, July.

4. Killincarrig and Bray; *Ir. Flor.*—5. Howth (east side) and Killiney Hill; *Wade Dubl.* Ireland's Eye and Lambay; *Ir. Flor.*—6. Abundant on the limestone pastures about Castle Taylor and Garryland, Galway; *A. G. M.* Shores of Lough Derg, Galway; *D. M.* Throughout the Burren district of Clare; *Mr. F. J. Foot.*—8. Near the town of Galway, to the north-west; *Rev. W. M. Hind.*—9. At Bridewell, near Athlone; *Dr. P. Browne.*—12. Bushy places by the shore, near Crawfordsburn; *Mr. D. Orr.* Coast at Portrush (G. D.) *Flor. Ulst.*

4. † *G. pyrenaicum* (Linn.)—*Mountain Crane's-bill.*

Districts - - 3 4 5 - 7 8 - 10 - 12

Lat. 52°-55°. East of Ireland, chiefly. A doubtful native.

Type in Great Britain, English; but an uncertain native.

Hedge-banks, road-sides, borders of fields, &c., very local. *Fl.* June to August.

3. Ayresfield; New Park; and near the city of Kilkenny; *Rev. S. Madden.*—4. Near Enniskerry, Wicklow! *Mr. J. Ball.*—5. Frequent by road-sides near Ballitore, Kildare; *I. C.* Common in hedges about Straffan! *Mr. John Douglas.* Common about Dublin; *Flor. Hib.* Killiney; Finglass; Drumcondra; Portmarnock; &c.—7. Roadside near Killucan, Westmeath; *Miss E. Reynell.*—8. Near Belmullet, Mayo, close to the town; *D. M.*—10. Road-side close to a cottager's garden, near Loughgall, Armagh; *A. G. M.*—12. Hedge-

side near Groomsport! *Miss Maffett* (probably recently introduced).

More frequent in the east of Ireland, which is much more thickly inhabited.

5. *G. pusillum* (Linn.)—*Small-flowered Crane's-bill*.

Districts 1? - - 4? - 6 - - - - 12  
Lat. 51° or 53°-55°. Middle and North-east of Ireland.

Type in Great Britain, English, inclining to British.

Pastures and banks on a light soil; very rare. *Fl.* May to August.

1? By the road-side near the Ovens; *Drummond*. Not found since.—4. Near Kilmakannick, Wicklow; *Flor. Hib.*—6. Miltown Malbay! Clare; *Prof. Harvey*.—12. At Doagh; Cave Hill; and shore at Bath Lodge; *Flor. Ulst.* In a field between the base of the Cave Hill and the road leading from Belfast to Antrim; *Mr. D. Orr*.

6. *G. dissectum* (Linn.)—*Jagged-leaved Crane's-bill*.

Districts 1 2 3 4 5 6 7 8 9 - 11 12  
Lat. 51°-56°. Throughout Ireland.

Type in Great Britain, British.

Fields, banks, and bushy places; frequent. *Fl.* June to August.

7. *G. columbinum* (Linn.)—*Long-stalked Crane's-bill*.

Districts 1 2 - - 5 6 - - - 10 - 12  
Lat. 51°-55°. South and East of Ireland, chiefly.

Type in Great Britain, English, inclining to British.

Dry banks, road-sides, and waste places; local and rare. *Fl.* June, July.

1. Near Kilcreagh Abbey; about the Ovens Church (on limestone rocks). *I. C.*; near Ballincollig Castle; *Flor. Cork*. Road-side near Rafeen (!), and by the railway near Rochestown station; *T. Wright*.—2. Sunday's Well and Shanakiel; *Flor. Cork*.—2. Near Clonmel and Carrick-on-Suir; *Miss S. Grubb*.—4. Ditch banks on the Murrough of

Wicklow; *D. M.*—5. Road-sides between Knockmaroon and Lucan, and Feltreem Hill; *Ir. Flor.* Road-side at Malahide; *Mr. D. Orr.* Many places near Dublin; *Wade Dubl.*—6. On the shore of Lough Derg, near Portumna; *D. M.* On a rockery in the pleasure grounds at Castle Taylor, Galway; *A. G. M.*—10. Road-sides near Urney, Tyrone; *Admiral Jones.*—12. Ballydoon, near Killinchy; Malone, near Belfast; debris of quarries at Belfast mountains; *Flor. Ulst.* Sandy ground at Lambeg, Antrim, 1845; *Mr. D. Orr.*

8. *G. rotundifolium* (Linn.) *Round-leaved Crane's-bill.*

Districts 1 2 - - - - -

Lat. 51°-52°. Extreme South of Ireland—Cork only.

Type in Great Britain, English.

Dry banks and way-sides; very local. *Fl.* May to August.

1 and 2. Common about Cork; *Drummond* and *I. C.*

Supposed to have been found in county Dublin (about Finglas, Glasnevin, Ballymena, &c.); *Ir. Flor.*; and included also in the *Flora of Ulster* as occurring near Cookstown and Antrim; but it is believed that some other species was mistaken for it in both these counties.

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

Districts 1 2 3 4 5 6 7 8 9 10 11 12

Lat. 51°-56°. Throughout Ireland.

Type in Great Britain, British.

Banks, road-sides, and fields; common. *Fl.* May to August.

10. *G. lucidum* (Linn.)—*Shining Crane's-bill.*

Districts 1 2 3 4 5 6 7 8 9 10 - 12

Lat. 51°-56°. From South to North of Ireland.

Type in Great Britain, British, inclining to English.

Rocky places and walls; rather local. *Fl.* May to July.

By no means a common plant, though widely distributed, and found here and there in most counties, especially on a rocky limestone soil; abundant on the chalk and basaltic cliffs of Antrim. Rare in the east of Ireland.

Ascends to about 600 feet in Antrim.

12. *G. Robertianum* (Linn.)—*Herb Robert*.

Districts 1 2 3 4 5 6 7 8 9 10 11 12  
 Lat. 51°–56°. Throughout Ireland.

Type in Great Britain, British.

Rocky and shady places; common. *Fl.* May to August.

*Var. β purpureum* (*G. purpureum* Forst.).

1. About Cork; *Flor. Cork* and *I. C.*—6. In the Islands of Arran, Galway Bay; *Prof. D. Oliver*. Several other forms occur on the coast.

[*G. striatum* (Linn.) was found in 1837 naturalized on a ditch bank, within a hundred yards of MacBlain's bridge, Lisburn, Antrim; *D. M.*]

*ERODIUM* L'Hérit.1. *E. cicutarium* (Sm.) *Hemlock Stork's-bill*.

Districts 1 2 3 4 5 - - 8 9 - 11 12  
 Lat. 51°–56°. From South to North of Ireland.

Type in Great Britain, British.

Sandy ground, mostly near the sea; frequent. *Fl.* June to August.

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

Districts 1 2 - 4 5 6 - 8 - - - 12  
 Lat. 51°–55° or 56°. Coasts round nearly all Ireland.

Type in Great Britain, Atlantic.

Banks, rocky pastures, and waste places, near the coast; local. *Fl.* June, July.

1. Sandy warrens, near Clahan, Kerry; *D. M.* Dingle; *Rev. W. M. Hind.*—1 and 2. About Cork; *Flor. Cork* and *Flor. Hib.*; and seen by Mr. Carroll in both divisions of the county.—4. Curacloa, Wexford; *Mr. J. Morrison*. Between Enniskerry and Bray; *Mr. J. Ball*. On the Commons at Bray; *Wade Dubl.*—5. Rochestown Hill, near Killiney; *Ir. Flor.* Donnybrook; *Flor. Hib.* Howth and Rush; *D.M.* Artane; Dunleary (now Kingstown); Chapelizod; and near Warren House; *Wade Dubl.* Rocks at Carlingford Castle; *Flor. Hib.*—6. Grassy waysides near Limerick; *Mr. John Sim.* Road-side between Lisdoonvarna and Cliffs

of Moher; *Rev. T. Warren*. Near Galway; *the late Prof. Graham*.—8. Near Clifden, Connemara; *Rev. W. M. Hind*.—12. Abundantly in the Bay of Kilkeel, Down; *Ir. Flor.* Sandhills at Dundrum; *Mr. S. A. Stewart*. Dry places north-east of Holywood; *Flor Ulst.* Near Donaghadee; *Mr. S. A. Stewart*. Dunmurry; field by the shore below Carrickfergus; at Portaferry; Cave Hill; and Glenarm; *Flor Ulst.* Magilligan, Derry; *Mr. S. A. Stewart*, Hedgebank by the road-side near Gortnacross, Antrim; *D. M.*

Native on the sandhills and grassy banks in the neighbourhood of the coast, but probably introduced where found in inland localities.

Large forms of *E. cicutarium* are frequently mistaken for *E. moschatum*.

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

Districts 1 2 - 4 5 - - 8 - - - 12

Lat. 51°-56°. Coasts, from South to North of Ireland.

Type in Great Britain, Atlantic, inclining to English.

Banks and waste places near the sea; rare. *Fl.* May to August.

1. On the strand, near Tralee, &c.; *Smith's "Kerry."* Bro Head, Crookhaven; *Flor. Cork.* Cork Harbour, very rare; *I. C.*—2. Strand at Ballycotton; *Drummond.* Tramore, Waterford; *Mr. T. Chandlee.*—4. Curacloa, Wexford; *Mr. J. Morrison.* Ballytigue, Wexford; *Rev. S. Madden.* Killiney Bay; *Wade Rar.*—5. Howth, on the south and east side! *Wade Rar.*—8. Shore at Aghris, Connemara; *Wade Rar.*—12. Newcastle and Kirkestown, Down; *Flor. Ulst.* Between Whiteabbey and Carrickfergus; Eden, near Carrickfergus; *Flor. Ulst.* Abundant in a field below Whiteabbey; *D. M.* Glenarm; Ballycastle; and Castlerock, Coleraine; *Flor. Ulst.*

## ORDER XVII.—LINACEÆ.

*LINUM* Linn.1. *L. angustifolium* (Huds.)—*Pale-flowered Flax*.

Districts 1 2 - 4 5 - - - - -

Lat. 51°–54°. South and East of Ireland.

Type in Great Britain, Atlantic.

Pastures, mostly near the sea; rare, and very local. *Fl.* July.

1. Near Cork and Kinsale; *I. C.*—2. About Cork, rather rare; *Flor. Cork*. Near Powerstown, Tipperary; *Miss S. Grubb*. 4. Valleys above Enniskerry; *the late Mr. J. White*. Near Wicklow Head; *D. M.*—5. Knockmaroon Hill; *Wade Rar*. Dalkey; *Rev. S. Madden*. Fields above Dundrum; on Killiney Hill; Phoenix Park; near Chapelizod, &c.; *Flor. Hib.*

*Obs.*—“*Linum perenne*” is recorded by Mr. Drummond to have been found near Monkstown, Cork; but Mr. Drummond’s specimen preserved in the Herbarium of the Cork Institution, is *L. angustifolium*; (*I. C.*).

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

Districts 1 2 3 4 5 6 7 8 9 - 11 12

Lat. 51°–56°. Throughout Ireland.

Type in Great Britain, British.

Pastures and heaths; common. *Fl.* June to August.

From sea-level to 600 feet in Derry, and probably much higher.

*RADIOLA* Gmel.1. *R. millegrana* (Sm.)—*All-seed*.

Districts 1 2 - - 5 6 - 8 - - 11 12

Lat. 51°–56°. From South to North of Ireland.

Type in Great Britain, British.

Damp, sandy, and heathy or boggy places, mostly near the sea; rather local. *Fl.* July, August.



1. Plentiful about Ballylickey, near Bantry; Bandon, &c.; *Flor. Cork*.—2. Fairy Hill, Waterford; *Miss A. Taylor*.—5. Between Dolphin's-barn and Crumlin; *Threlkeld*.—6. Bogs south of Kilkee; *I. C.* Loophead, Clare; *D.M.*—8. Achill, Mayo; *Mr. T. Chandlee*. Bangor and Belmullet, in Erris; *D.M.*—9. By the shore of Lough Cullin, Mayo; *A. G. M.*—11. Rosses, in County Donegal; *Prof. E. Murphy*.—12. Kirkeel and Newcastle, Down; *Wade, Rar.* Ballygowan Lough; Murlough; and between Newcastle and Kilkeel; Newtownards; Bangor; Holywood; all in County Down; *Flor. Ulst.* Plentiful on sandy warrens from Portrush to Downhill, Derry; *D. M.*

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ORDER XVIII.—OXALIDACEÆ.

*OXALIS* Linn.

1. *O. Acetosella* (Linn.)—*Wood Sorrel*.

Districts 1 2 3 4 5 6 7 8 9 10 11 12

Lat. 51°–56°. Throughout Ireland, sparsely.

Type in Great Britain, British.

Woods, thickets, and shady banks; frequent, but not an abundant species. *Fl.* May.

A variety with red flowers has been found near Passage (*Flor. Hib.*) and at Rochestown, Cork; *I. C.* Also at Powerscourt, Wicklow; *A. G. M.* This is not the shamrock, or "Shammar-oge," or "Shamrug" of the Irish, which is *Trifolium repens* (Linn.); see under that species.

Ranges from sea-level to 1650 feet on Slieve Donard (*Flor. Ulst.*) and to 2200 feet at the top of Dart (*D. M.*)

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ORDER XIX.—CELASTRACEÆ.

*EUONYMUS* Linn.

*E. europæus* (Linn.)—*Spindle-tree*.

Districts 1 2 3 4 5 6 7 8 9 - - 12

Lat. 51°–56°. Throughout Ireland.

Type in Great Britain, English.

Bushy and rocky places, sides of rivers and lakes; not

unfrequent, especially on limestone, but local. *Fl.* May, June.

Rare in the North, though found about Lough Neagh; on Knockagh, above Carrickfergus, &c. More frequent in the rocky limestone districts and on the borders of lakes in the West. Banks of the Barrow in Kildare (*the late Mr. J. White, M.S.*).

## ORDER XX.—RHAMNACEÆ.

### *RHAMNUS* Linn.

#### 1. *R. catharticus* (Linn.)—*Purging Buckthorn*.

Districts 1 - - 4 - 6 7 - 9 10 - 12

Lat. 51°–55°. From South to North of Ireland.

Type in Great Britain, English.

Thickets, rocky places, and shores of lakes; rare. *Fl.* May, June.

1. Hedges and woods about Killarney, sparingly; *Wade Rar.* Killarney, *C. C. B.* On the Muskery hills; *Smith's "Cork."* Banks of the Lee, near Carrigrohane Castle, Cork; *Drummond*.—3. Banks of the Barrow, in Queen's County; *D. M.*—4. Shores of Lough Luggelaw, and on the Murrough of Wicklow; *D. M.*—6. Near Ballyvaughan, and on the shores of lakes near Corrofin, Clare; *Mr. F. J. Foot.* On rocky pasture ground, at Castle Taylor, Galway; *A. G. M.*—7. In hedges near Tullamore, King's County; *Mr. M. P. Edgeworth*.—8. Islands in Lough Corrib; *Wade Gallovid.* Shores of Lough Corrib and Lough Mask; *Prof. Melville.* Shores of Lough Cullin, Mayo; *A. G. M.*—9. Shore of Lough Carra; *A. G. M.*—10. Islands in Lough Erne; *Flor. Hib.*—12. Shores of Lough Neagh, one mile west of the Blackwater; *Flor. Hib.* Toom-bridge, and by the outlet of Lagan Canal; *D. M.* Creagh Island, in Lough Beg, and in a hedge near Salterstown, Derry; *D. M.*

Chiefly on the shores and islands of the larger lakes. The berries were sent to Dublin from King's County "in great quantities" in the time of Threlkeld.

2. R. Frangula (Linn.)—*Alder Buckthorn*.

Districts - - - 4 - 6 7 8 - - - 12

Lat. 53°-55°. Middle and North-east of Ireland.

Type in Great Britain, English.

Heathy and boggy places; very rare. *Fl.* May, June.

4. On wet ditch banks at the Murrough of Wicklow; *D. M.*—6. Near Rock Forest, on the borders of Clare and Galway; *Rev. T. O'Mahony*. Quite prostrate on limestone flags outside the wood at Garryland, near Gort, Galway; *A. G. M.*—7. In a wood near Tullamore, King's County; *Mr. M. P. Edgeworth*.—8. Derrynany, Mayo; *Mr. J. Ball*.—12. Townland of Crevetenan, near Ballinahinch; bog near Ballygowan bridge, Down; *Flor. Ulst.* Side of Lough Neagh, at Shane's Castle; and near Toombridge; *D. M.* Near Castlestewart; *Flor. Ulst.* Creagh Island, in Lough Beg, and at Portglenone, Derry; *D. M.*

## ORDER XXI.—LEGUMINOSÆ.

## ULEX Linn.

1. U. europæus (Linn.)—*Furze, Whin, Gorse*.

Districts 1 2 3 4 5 6 7 8 9 10 11 12

Lat. 51°-56°. Throughout Ireland.

Type in Great Britain, British.

Heaths and pastures; common. *Fl.* April, May.*Var. β. strictus* (*U. strictus* Mackay Cat.), *Irish Furze*.10. Found sparingly, by Mr. John White, in the Marquis of Londonderry's Park, at Mount Stewart, near Newtonards, in the county of Down; *Flor. Hib.*

Ranges from sea-level to about 1000 feet in Derry.

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

Districts 1 2 3 4 5 6 - 8 - 10 - 12

Lat 51°-56°. From South to North of Ireland.

Type in Great Britain, English.

Dry heaths and hilly places, mostly near the coast; frequent, but local. *Fl.* August to October."Rare towards the north-west;" *Flor. Ulst.*

The typical *U. nanus* (Forst.) has not been found in Ireland.

Ranges from 200 to 300 feet in Derry; *D.M.* From sea-level to 800 feet on Sugar Loaf, Wicklow; and 800 also on Slieve Donard, Down; *Flor. Ulst.*

### GENISTA Linn.

#### 1. *G. tinctoria* (Linn.)—*Dyer's Green-weed*.

District - - - - 5 - - - - -

Lat. 53°-54°. East of Ireland—county Dublin only.

Type in Great Britain, English.

Thickets and borders of fields; very rare. *Fl.* July, August.

5. Fields between Killiney Hill and Bray; *Mackay Cat., Ir. and Flor. Hib.*

### SAROTHAMNUS Wimm.

#### 1. *S. scoparius* (Koch.)—*Broom*.

*Cytisus scoparius*, D. C. *Spartium scoparium*, Linn.

Districts 1 2 3 4 5 6 7 8 9 10 11 12

Lat. 51°-56°. From South to North of Ireland.

Type in Great Britain, British.

Heaths and hilly places; frequent. *Fl.* May, June.

### ONONIS Linn.

#### 1. *O. arvensis* (Linn.)—*Rest Harrow*.

Districts 1 2 3 4 5 - 7 - - - 11 12

Lat. 51°-56°. From South to North-east of Ireland.

Type in Great Britain, British.

Pastures, borders of fields, and sand-hills, mostly near the sea; by no means common in Ireland. *Fl.* June to September

Frequent in some parts of the south and east of Ireland, especially on the sand-hills of the coast, but apparently rare or wanting in the west, though reported by Mr. F. J. Foot as frequent in the midland counties.

*Obs.*—*O. campestris* (Koch) (*O. antiquorum*, L. ?), is recorded by Drummond as found at Blackrock, Cork, and is also

included in Power's "Flora of Cork," but we have not seen any Irish specimens, and we fear that a thorny state of *O. arvensis* has been mistaken for it.

*MEDICAGO* Linn.

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

Districts 1 2 3 4 5 6 - 8 - 10 11 12  
 Lat. 51°-56°. From South to North of Ireland.

Type in Great Britain, British.

Pastures and wastes; rather local. *Fl.* May to August.

Abundant in the east and south of Ireland, but appears to become rare in the west and north-west. Very rare near Belfast, where Mr. Orr has met with it in two localities only. Professor Melville finds it near Galway, to the west of the town.

2. \* *M. maculata* (Sibth.)—*Spotted Medick.*

Districts - 2 - - (5) - - - - -  
 Lat. 51°-52°. South of Ireland, a doubtful native.

Type in Great Britain, English.

Cultivated land, way-sides, and waste places; very rare. *Fl.* May to July.

2. South side of the Little Island, by the shore, 1840 (at that date the only known Irish locality); *Flor. Cork.* Occasionally seen in cultivated land, as on the Model Farm, Cork, but no doubt introduced; *Prof. E. Murphy.*—(5). Between Dolphin's-barn and Crumlin, Dublin (growing with *M. denticulata*); *the late Mr. Johnston.*

Further observation is required to show whether this plant is native on the south coast; at present we must consider it introduced in the localities mentioned.

[*M. denticulata*. (Willd.) has been once found in a potato field near Blarney (*Flor. Cork*) and Mr. Sullivan reports it as occurring in cultivated ground at Bandon. The late Mr. Johnston once gathered it between Dolphin's-barn and Crumlin; but there is no doubt that it had been introduced in all these localities. Miss Maffett has shown us the sup-

*M. sativa* - - - - 5 - - - -  
*see p. 383.*

posed "*Medicago denticulata*" of "Flora Belfastiensis," from Donaghadee, which proves to be a *Melilotus*, probably *M. arvensis*.]

[*Medicago minima* (Lam.) has once been found by the Corn Market at Cork, and Mr. Sullivan informs us that he has recently found it growing in cultivated fields at Bandon, no doubt introduced with the crops.]

*MELITOTUS* Lam.

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

Districts 1? 2? 3 - 5 - - - - - 12  
Lat. 51°-55°. South and East coasts of Ireland.

Type in Great Britain, English.

Waste places, banks and borders of fields, chiefly near the sea; very local and rare. *Fl.* July to August.

1? and 2? In the Little Island; *Drummond*. In a quarry at Blackrock; *Flor. Cork* (probably *M. arvensis*; *I. C.*)—

3. By the Kilkenny railway, which passes through brackish marshes, near Waterford, plentiful (*Mr. T. Chandlee*); *I. C.*—

5. In some closes, which by the ridges appear to have been ploughed, beyond Coolack, copiously; *Threlkeld*. Sandy and bushy banks in Killiney Bay; plentifully near Baldoyle; and

in fields round the quarry near Finglas Bridge; *Wade Dubl.*

On the lands of Abbeyville, Baldoyle! and Kilbarrock! Feltrum Hill and Rush; *Ir. Flor.* Portmarnock; and old

quarries above Sutton (Howth); *the late Mr. J. White*.—  
12. On the Curran of Larne, Antrim; *D. M.*

Probably introduced in some, if not all, of these localities.

2. \* *M. arvensis* (Willd.)—*Field Melilot*.

Districts 1 2 - - - - - 12

On railway embankments, waste ground, &c., &c.; very rare, and certainly introduced. *Fl.* June to August.

1 and 2. By railways near Cork, sparingly, and now quite extinct; *I. C.*—2. Railway side at Cahir, in considerable quantity; *Mr. T. Wright*. Railway station at Clonmel;

*Miss S. Grubb*.—12. Donaghadee! *Miss Maffett* (apparently this species, but the specimen is imperfect).

3. \* *M. vulgare* (Willd.)—*White-flowered Melilot.*

*M. leucantha* (Koch.) *M. alba* (Lam.).

Districts - 2? - 4 - - - - -

Waste places, railway banks, &c.; very rare and not native. *Fl.* July, August.

2? Salt marshes near Cork (Mr. Drummond); *Flor. Hib.* (perhaps *M. officinalis*); Meadows in the Little Island (Mr. Drummond); *Flor. Cork* (locality given for *M. officinalis* in Mr. Drummond's list).—4. Abundantly for two summers along embankments by a newly-made road, near Camolin, Wexford (Mr. J. Morrison); *I. C.*

Like the former, quite uncertain in its localities, and scarcely to be considered naturalized, except upon the supposition that the seeds remain for many years dormant in the ground. But it is likely that both species spring, in most cases, from freshly imported seeds.

*TRIFOLIUM* Linn.

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

Districts 1 2 3 4 5 6 7 8 9 10 11 12

Lat. 51°–56°. Throughout Ireland.

Type in Great Britain, British.

Meadows and pastures; common. *Fl.* May to September.

2. *T. medium* (Linn.)—*Zigzag, or Mountain Clover.*

Districts 1 2 - 4 5 - - 8 9 - 11 12

Lat. 51°–56°. From South to North of Ireland.

Type in Great Britain, British.

Hilly pastures and rocky places; not common. *Fl.* June to August.

1 and 2. About Cork; *Flor. Cork*. But rare in the south; *I. C.*—2. Near Carrick-on-Suir; *Miss S. Grubb*. Mill Island, Fermoy, rare; *Mr. T. Chandlee*.—4. Banks near the sea at Rockfield, Wicklow; *D. M.*—5. Near Ballitore; *I. C.* Ballinascorney Gap, in the Dublin Mountains; *Mr. D. Orr*. Fields in the Dublin Mountains, and at their base; *Wade Dubl.*—8. On the shore of Lough Cullin; *A. G. M.*—9. Near Foxford, Mayo; *A. G. M.*—11. Ballyshannon, and Mount

Charles, Donegal; *Admiral Jones*.—12. Near Belfast, Cave Hill, Carmoney Hill, &c.; *Flor. Ulst.* Abundant in pastures along the coast of Antrim, and plentiful along the base of the basaltic range, &c., in Derry; *D. M.*

Apparently local or scarce in most parts of Ireland, but has no doubt been overlooked in many places on account of its resemblance to *T. pratense*.

Ranges from 50 to 1000 feet in Derry (*D. M.*).

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

Districts 1 2 - 4 5 - - - - - 12  
 Lat. 51°-56. South, East, and North-east coasts of Ireland.  
 Type in Great Britain, British, inclining to English.

Sandy places near the sea; rather rare and local. *Fl.* July, August.

1 and 2. Rare about Cork; *Flor. Cork*. But occurs in both divisions of the county; *I. C.*—2. Dunmore, Waterford; *I. C.*—4. Abundant at Ballyconigar, &c., Wexford; *I. C.* Coast of Wicklow; *D. M.*—5. About Rush, Dublin; *Wade Rar.* Baldoyle and Portmarnock; *Flor. Hib.* Islands of Dalkey and Lambay; *Ir. Flor.*—12. Near Belfast; *Flor. Ulst.* and *Flor. Belf.* Shores of Lough Neagh, and frequent on the coasts of Antrim and Derry; *D. M.* Rathlin; *Flor. Ulst.*

Probably occurs elsewhere, and on the western coast, but we have no information on this head.

### 4. *T. striatum* (Linn.)—*Soft Knotted Trefoil*.

Districts 1 - - 4 5 - - - - - 12  
 Lat. 51°-55°. East of Ireland chiefly.  
 Type in Great Britain, English.

Gravelly banks, mostly near the sea; very rare. *Fl.* May, June.

1. On the strand at Glandore, Cork; *Mr. J. Sullivan, Spec.*—4. Murrough of Wicklow; *D. M.*—5. Ballawley Park, near Dundrum, Dublin; *Mr. D. Orr.* Killiney, Kilbarrock, and Howth; *D. M.* Clogher Head, Louth; *Mr. J. Ball.*—12. Gravel banks on the shore at Ranboy, a



quarter of a mile west from Carrickfergus (Mr. Templeton) *Flor. Ulst.* and *Flor. Hib.* Whitehead (Mr. Millen) Castle Chichester (G. D.) *Flor. Ulst.*

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

District - - - - 5 - - - - -

Lat. 53°-54°. East coast of Ireland—Dublin and Louth.

Type in Great Britain, English.

Sandy and gravelly places near the sea; very rare. *Fl.* May, June.

5. Fields near Sandymount, and at Kilbarrock church; *Flor. Hib.* Along the North Wall, Dublin; and on the rocky grounds about Millefont, county Louth; *Ir. Flor.*

[*T. maritimum* (Huds.)—In a field near Kilbarrock churchyard; *Wade Rar.* (probably *T. striatum* was mistaken for it in this locality, which is repeated in Mackay's Catalogue). "In the Island of Lambay" (Mr. Underwood), *Mackay Rar.*, but some doubt is expressed in *Flor. Hib.* At the lower end of the North Wall, Dublin; *Mackay Rar.* (omitted in *Flor. Hib.*). The late Mr. Johnston once brought a few specimens from the neighbourhood of the glass works in the "North Lots," where the seeds may have been introduced.]

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

Districts 1 2 3 4 5 6 7 8 9 10 11 12

Lat. 51°-56°. Throughout Ireland.

Type in Great Britain, British.

Meadows and pastures; common. *Fl.* May to September.

This is the plant still worn as "Shamrock" on St. Patrick's Day (March 17), though *Medicago lupulina* is also sold in Dublin as the Shamrock. Edward Lhwyd, the celebrated antiquary, writing in December, 1699, to Tancred Robinson, says, after a recent visit to Ireland, "Their 'Shamrug' is our common clover" (*Phil. Trans.*, No. 335). Threlkeld, the earliest writer on the wild plants of Ireland, gives "Seamar-oge" (Young Trefoil) as the Gaelic name for "*Trifolium pratense album*," and says expressly that this is the plant worn by the people in their hats on St. Patrick's Day.

Wade also gives Seamrog as equivalent to *T. repens*, while the Gaelic name given for *Oxalis* by Threlkeld is "Sealgan."

Ranges from sea-level to 1000 feet in Derry.

7. *T. ornithopodioides* (Linn.)—*Bird's-foot Trefoil*.

*Trigonella ornithopodioides* (D. C.) Brit. Flor. and Benth.

Districts - - - 4 5 - - - - -

Lat. 53°-54°. East coast of Ireland—Wicklow, Dublin, Louth.

Type in Great Britain, English.

Banks, and sandy or gravelly pastures near the sea; very rare. *Fl.* June.

4. On the gravelly beach by the Murrough of Wicklow; *Flor. Hib.*—5. On the south-east side of Killiney Hill, and near Bullock, abundant; *Mackay Cat., Ir. and Flor. Hib.* Near the North Wall; *Wade Dubl.* Near the light-house at Howth; *D. M.* Clogher Head, Louth; *Mr. J. Ball.*

8. *T. fragiferum* (Linn.)—*Strawberry-headed Trefoil*.

Districts - 2 - 4 5 - - - - -

Lat. 52°-54°. South-east and East coasts of Ireland.

Type in Great Britain, English.

Damp pastures, mostly near the sea; rare and very local. *Fl.* July, August.

2. Tramore, Waterford; *Miss. S. Grubb.*—4. Murrough of Wicklow; *D. M.*—5. Sandymount and Portmarnock; *Flor. Hib.* Brickfields beyond Clontarf; on a wet common between Glasnevin and Drumcondra bridges, Dublin; *Ir. Flor.* Swords, near Dublin; *D. M.* Marshy meadows along the Boyne, beyond the Obelisk; *Ir. Flor.*

9. *T. procumbens* (Linn.)—*Hop Trefoil*.

*T. agrarium* (Linn.) Benth. and Brit. Flor.

Districts 1 2 3 4 5 6 7 8 9 10 11 12

Lat. 51°-56°. Throughout Ireland.

Type in Great Britain, British.

Dry pastures, sandy and gravelly places; frequent. *Fl.* June to August.

10. *T. minus* (Sm.)—*Small Yellow Trefoil.**T. procumbens* (Linn.) Bentham and Brit. Flor.

Districts 1 2 3 4 5 6 7 8 9 10 11 12

Lat. 51°–56°. Throughout Ireland.

Type in Great Britain, English, inclining to British.

Sandy and gravelly pastures, banks, &c.; common. *Fl.* June to August.11. *T. filiforme* (Linn.)—*Slender Yellow Trefoil.*

Districts 1? 2? - 4 5 - - 8 - - - 12

Lat. 51°–55°. From South? to North of Ireland.

Type in Great Britain, British, inclining to English.

Gravelly pastures, heathy places, &c.; rare. *Fl.* June to August.

1? and 2? Very common, *Flor. Cork* (probably a form of *T. minus*).—4. On the Murrough of Wicklow; *D. M.*—5. Killiney Hill! and Howth; *D. M.*—8. Leenane, Galway, *C. C. B.*—12. Ballyronan; Kinnegar; Holywood, and along the shores of Lough Neagh; *Flor. Ulst.* Near Belfast, *Mr. D. Orr.*

Apparently rare, but the species has been little sought for in Ireland; and is not often distinguished from *T. minus*.

## LOTUS Linn.

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

Districts 1 2 3 4 5 6 7 8 9 10 11 12

Lat. 51°–56°. Throughout Ireland.

Type in Great Britain, British.

Pastures and dry banks; common. *Fl.* June to August.*Var. β. tenuis* (*L. tenuis* Smith).

Very rare.—5. On a road-side bank near Cloghran! in the county of Dublin, 1856; *Mr. D. Orr.*

Reaches 1500 feet on the top of Carntogher, Derry.

2. *L. major* (Scop.)—*Greater Birds-foot Trefoil.**L. corniculatus* var. Bentham.

Districts 1 2 3 4 5 6 - 8 - - 11 12

Lat. 51°–56°. From South to North of Ireland.

Type in Great Britain, British, inclining to English.

Damp pastures, ditch sides, and wet bushy places; frequent.  
*Fl.* July, August.

Apparently rare in the west, not having been observed by A. G. M. in Galway and Mayo, but Professor Melville finds it near the town of Galway, Mr. Foot reports it from Clare, and Mr. S. A. Stewart describes it as plentiful near the city of Londonderry.

[*Lotus angustissimus* (or *L. hispidus*) is recorded as having been found on the strand near Passage, Cork (*Drummond*), but had become extinct at the date of the "Flora of Cork." Dr. Power, moreover, marks it as an introduced species. The specimens preserved in Dr. Mackay's Herbarium are *L. hispidus*, but, as explained in our preface, this collection is of no authority.]

### ANTHYLLIS Linn.

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

Districts 1 2 3 4 5 ✓ 6 7 8 9 10 11 12  
Lat. 51°–56°. From South to North of Ireland.

Type in Great Britain, British.

Pastures, banks and rocks, especially on a calcareous soil, and near the sea; frequent. *Fl.* June to August.

Varies with white, and sometimes red flowers (*var. Dillenii*), on the coast.

From sea-level to 1500 feet on Ben Evenagh and Carn-togher, in Derry; *D. M.*

### ASTRAGALUS Linn.

#### 1. *A. Hypoglottis* (Linn.)—*Purple Milk-Vetch*.

District - - - - - 6 - - - - -  
Lat. 53°–54°. West coast of Ireland—Arran only.

Type in Great Britain, Germanic, inclining to British.

Sandy pastures near the sea; very rare. *Fl.* May, June.

6. In the Great Island of Arran! in Galway Bay; *Flor. Hib.*

## VICIA Linn.

1. *V. hirsuta* (Koch)—*Hairy Tare*.*Ervm hirsutum* (Linn) Flor. Hib.

Districts 1 2 3 4 5 - - 8 - 10 11 12

Lat. 51°-56°. From South to North of Ireland.

Type in Great Britain, British.

Cultivated fields, hedges, &c.; rather rare. *Fl.* June to August.

Thinly scattered through most of the districts, but much more rare in the west. Not seen in Galway and Mayo by A. G. M., but found near the town of Galway by Professor Melville.

Ranges from sea-level to 500 feet in Kerry.

2. *V. tetrasperma* (Moench.)—*Smooth Tare*.*Ervm tetraspermum* (Linn.) Flor. Hib.

Districts 1 2 - - 5 - 7 - - - - -

Lat. 51°-54°. South and East of Ireland.

Type in Great Britain, English, inclining to British.

Fields and hedges; very rare. *Fl.* June to August.

1 and 2. Rare near Cork; *Flor. Cork*. But occurs in both divisions of the county, as at Blackrock, Passage, &c.; *I. C.*—5. Knockmaroon Hill, Dublin; *the late Mr. Johnston*. Weir over the Blackwater at Lasaton (Liscarton) bridge, county Meath; *Flor. Hib.* Ann's brook, near Drogheda, Meath; *Prof. E. Murphy*.—7. In a corn field near Mullingar; *Mr. F. J. Foot*.

3. *V. sylvatica* (Linn.)—*Wood Vetch*.

Districts 1 ✓ 2 3 4 5 - - 8 9 - 11 12

Lat. 51°-56°. From South to North of Ireland.

Type in Great Britain, British?

Bushy and rocky places; rare. *Fl.* July, August.

1. Abundant in the woods south of Ross Island, Killarney; *Wade Rar.* Killarney; *Rev. S. Madden*. Muckruss, Gengariff, and about Bantry Bay; *Flor. Hib.* In a furze-brake near Bantry, and by the Lee, above Carrigbroham Castle; *Drummond*. On limestone crags at Shanbally, near Monkstown;

*Flor. Cork*.—2. In a wood on the banks of the Blackwater, below Fermoy; *Drummond*. In south and north Cork, but rare; *I. C.*—3. Wilton, Kilkenny; *Rev. S. Madden*.—4. Devil's Glen, Wicklow; *Flor. Hib.* Rockfield, Wicklow (with white flowers); *D. M.*—5. Gap of Ballinascorney, Dublin; *Flor. Hib.* Killiney; *Rev. S. Madden*. In hilly thickets between Dalkey and the Malpas Obelisk; *Wade Dubl.*—8. About Streamstown, Connemara; *Ir. Flor.* Doon, at head of Lough Corrib; *Prof. Melville*.—9. In county Sligo; *the late Mr. John Wynne*. Ben Bulbin; *Flor Ulst.*—11. Shore near the town of Donegal; *Flor. Ulst.*—12. Rostrevor wood, Down; *Flor. Hib.* Culdaff and Hornhead; *Mr. C. Moore*.—12. Cave Hill; Woodburn Glen; between Whiteabbey and Carrickfergus; White-head, Knockagh, &c.; *Flor. Ulst.* Abundant along the rocky coast of Antrim; *D. M.* Among bushes by the side of Lough Neagh, near Longford Lodge (with white flowers); *D. M.* Magilligan and Drumboe; *Flor. Ulst.* South side of Ben Evenagh; *D. M.* Colin Glen, Antrim, and Charlesville Glen, Down; *Mr. D. Orr*. At Rostrevor, Down; *Ir. Flor.* and *Wade Rar.*  
From sea-level to 700 feet in Derry; *D. M.*

#### 4. V. *Orobus* (D. C.)—*Wood Bitter-Vetch*.

*Orobus sylvaticus* (Linn.) *Flor. Hib.*

Districts - - - - - 7 8 - - - -

Lat. 53°-55°. West and Centre of Ireland.

Type in Great Britain, Intermediate, inclining to Atlantic.

Rocky and bushy places; very rare. *Fl.* June to September.

7. In a wood within four miles of Cloughjordan, King's County; *Flor. Hib.*—8. Rather common in some of the islands in Lough Corrib, particularly "Bilberry Island," county Galway; *Wade Rar.* Whence it was introduced into the Glasnevin Botanic Gardens; *Ir. Flor.* On the banks of a stream near Maam, Connemara; *Mr. L. Ogilby*, "Phytologist" (O. S.), vol. ii., 346.

"*Orobus sylvaticus nostras*" is recorded as found by Sherard

near Rostrevor, in Ireland (*Raii Syn. Ed. 3*), but *Vicia sylvatica* has been lately found in this locality, and was probably the plant intended.

5. *V. Cracca* (Linn.)—*Tufted Vetch.*

Districts 1 2 3 4 5 6 7 8 9 10 11 12  
Lat. 51°–56°. Throughout Ireland.

Type in Great Britain, British.

Woods, hedges, and bushy places; common. *Fl.* July, August.

6. *V. sepium* (Linn.)—*Bush Vetch.*

Districts 1 2 3 4 5 6 - 8 9 10 11 12  
Lat. 51°–56°. Throughout Ireland.

Type in Great Britain, British.

Woods, hedges, and shady banks; common. *Fl.* May to July.

Occurs rarely (at Hollymount, Mayo, &c.) with white flowers, when it is a beautiful plant.

From sea-level to 600 feet in Derry.

7. *V. angustifolia* (Roth)—*Narrow-leaved Vetch.*

*V. sativa* var. Brit. Flor., Bab. Man., &c.

Districts 1 2 - 4 5 - - - 10 - 12  
Lat. 51°–56°. From South to North of Ireland.

Type in Great Britain, British, inclining to English.

Sandy pastures and banks by the sea, and shores of lakes; frequent. *Fl.* May, June.

Coasts of Cork, Waterford, Wicklow, Dublin, Antrim, Derry, and probably in many other parts of the coast. Also by Lough Neagh, in Armagh, Antrim, and Derry. Except Lough Neagh, we can give no inland locality, unless a "rose-flowered variety of *V. sativa*," found by Mr. Carroll among furze on Ballitore Hill, Kildare, belongs to *V. angustifolia*.

[*V. sativa* (Linn.) occurs here and there among crops, by way-sides, and in hedges, as an escape from cultivation.]

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

Districts 1? 2? - - 5 - - - - - 12

Lat. 51°-56°. South and East coasts of Ireland.

Type in Great Britain, British.

Sandy or gravelly pastures, mostly near the sea; very rare.  
*Fl.* May, June.

1? and 2? By the Glanmire road, Little Island, and Middleton; *Flor. Cork*. (Probably *V. angustifolia*; *I. C.*)  
—5. Sandy fields between Clontarf and Baldoyle; *Flor. Hib.* Sandhills at Baldoyle; *A. G. M.* Shore between Clontarf and Howth; Gravel pits under the Hibernian School in the Phoenix Park; and about the "Lots," near the North-wall, Dublin; *Ir. Fl.*—12. On the shore at Three-mile-water Point near Carrickfergus; Sandhills, Ballyholme Bay; Ballycastle; *Flor. Ulst.* Sandhills at Magilligan, Derry; *D. M.*

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

Districts 1 2 3 4 5 6 7 8 9 10 11 12

Lat. 51°-56°. Throughout Ireland.

Type in Great Britain, British.

Moist Meadows, thickets and hedges; frequent. *Fl.* July, August.

2. *L. palustris* (Linn.)—*Blue Marsh Vetchling*.

Districts - - - 4 - 6 - - - 10 - 12

Lat. 53°-55°. Middle and north of Ireland.

Type in Great Britain, English.

Marshy meadows; very local. *Fl.* June, July.

4. Marshy fields on the Murrough of Wicklow; *D. M.*—  
6. By the Shannon, at Portumna, Galway; *D. M.*—10. Abundantly on the shores of Lough Erne, in the counties of Fermanagh and Cavan; *D. M.* Islets in Lough Neagh, County Armagh; *Rev. G. Robinson*.—12. By Lough Neagh, a little north of the Lagan; *Flor. Hib.* In drains at Selchin, by Lough Neagh, Antrim; *D. M.*



3. *L. maritimus* (Big.)—*Sea Pea*.*Pisum maritimum* (Linn.) Flor. Hib.

District 1 - - - - -

Lat. 52°-53°. South-west of Ireland—Kerry only.

Type in Great Britain,

Pebbly sea-shores; very rare. *Fl.* July, August.

1. On the sandhills in the Bay of Castlemain, Kerry. "They grow annually on the south point of Inch Island, in the Bay of Castlemain, in considerable quantities;" *Smith's "Kerry"* (1756).

4. *L. macrorrhizus* (Wimm.)—*Heath Pea*.*Orobus tuberosus* (Linn.) Flor. Hib.

Districts 1 2 3 4 5 6 - 8 9 - 11 12

Lat. 51°-56°. From South to North of Ireland.

Type in Great Britain, British.

Heathy and bushy places; frequent. *Fl.* May to July.The variety *tennifolius* occurs occasionally.*ORNITHOPUS* Linn.1. *O. perpusillus* (Linn.)—*Birdsfoot*.

Districts - - - 4 5 - - - - -

Lat. 52°-54°. East coast of Ireland.

Type in Great Britain, British, inclining to English.

Sandy and gravelly places near the sea; very rare. *Fl.* May to July.

4. Balliconigar, Wexford; J. Morrison, *I. C.*—5. On the Sutton side of the Hill of Howth, abundantly; *Flor. Hib.*

## ORDER XXII.—ROSACEÆ.

*PRUNUS* Linn.1. *P. communis* (Huds.)—*Blackthorn*, *Bullace*, *Plum*.*P. spinosa* (Linn.), *Blackthorn*, or *Sloe*.

Districts 1 2 3 4 5 6 7 8 9 10 11 12

Lat. 51°-56°. Throughout Ireland.

Type in Great Britain, British.

Thickets, hedges, banks, and rocky places; common. *Fl.* April, May.

Ranges to 500 feet in Derry.

† *P. insitica* (Linn.)—*Bullace*.

Districts 1 2 3 - 5 6 - 8 - - - 12  
 Lat. 51°-56°. From South to North of Ireland.

Type in Great Britain, English.

Woods and hedges; rare. *Fl.* April, May.

1 and 2. Rather rare about Cork, and possibly introduced; *Flor. Cork*.—2. Near Clonmel; *Miss S. Grubb*.—3. Ballinalina, Kilkenny; *Rev. S. Madden*.—5. Santry wood; *Ir. Flor.* Hedges near Merrion; *Flor. Hib.*—6. In rocky clefts in the Great Island of Arran, in Galway Bay; *Mr. L. Ogilby*.—8. Islands in Lough Corrib; *Ir. Flor.* Bilberry Island; *Wade Bar*.—12. Rostrevor Wood, Down; *Ir. Flor.* Colin Glen, &c; *Flor. Ulst.* Glen at Knock; *Flor. Belf.* Ballinleddy; *Mr. S. A. Stewart*. Frequent in many parts of Antrim and Derry; *D. M.*

\* *P. domestica* (Linn.)—"Wild Plum."

Is recorded as found near Cork, where it is not supposed to be indigenous. A tree, larger than the ordinary wild form of Bullace, has also been noticed by *D. M.* in the counties of Antrim and Derry; but the true *P. domestica* (Linn.), with oblong fruit, has not been seen wild in Ireland. It seems probable that the Plum figured in English botany (tab. 1783) under the name of "*P. domestica*," corresponds with the *P. insitica* of continental botanists. Our ordinary wild Bullace is apparently the *P. fruticans* of Grenier and Godron; but the various forms with round fruit seem scarcely entitled to rank even as sub-species.

2. *P. Padus* (Linn.)—*Bird Cherry*.

Districts (1) (2) - - - 6 - - 9 - 11 12  
 Lat. 53°-56°. North of Ireland chiefly.

Type in Great Britain, Scottish.

Woods and thickets, and banks of rivers. *Fl.* May.

1 and 2. Near Carrigaline; Glenbower wood, Killeagh; rather rare about Cork, *Flor. Cork*. No doubt planted; *I. C.* Not seen wild by *I. C.*—6. Sparingly on the banks of the Suck, near Ballinasloe; *Mr. F. J. Foot*.—9. In Sligo and

Leitrim; *the late Mr. J. Wynne*. Larkfield, Leitrim; *Admiral Jones*.—11. Mentiagh Glen and Innishowen, Donegal; *Mr. C Moore*.—12. Comber; Sallagh Braes, near Larne; Glenarm Glen behind Carnlough; Glenravel; *Flor. Ulst.* Banks of the Roe, Faughan, and Agivey rivers, in Derry; *D. M.* Glens in Glensheisk, Antrim; *Ir. Flor.* Glenarm, Glenariff, and other Glens in Antrim; *D. M.*

3. † *P. avium* (Linn.)—*Tree Cherry*.

*P. Cerasus* var. Bentham.

Districts 1 2 3? - - - 7 8 - - 11 12  
Lat. 51°-56°. From South to North of Ireland.

Type in Great Britain, English, inclining to British.

Woods and hedges; not common, and usually in suspicious stations. *Fl.* May.

1. Killarney; *D. M.* South Cork; *Mr. Sullivan*.—2. North Cork; *I. C.* By the Blackwater, but very rare about Cork; *Flor. Cork*.—3. Pottlerath, Kilkenny (if not *P. Cerasus*); *Rev. S. Madden*. Kilmacow; *Mr. T. Chandlee*.—4 and 5. Frequent in Wicklow and Dublin; *D. M.*—7. West Meath; *Miss E. Reynell*.—8. In Sligo; *the late Mr. J. Wynne*.—11. Donegal; *D. M.*—12. Several places about Belfast; *Flor. Belf.* Banks of Lough Neagh, sparingly (*Mr. Thompson*); *Flor. Hib.*

‡ 4. *P. Cerasus* (Linn.)—*Dwarf Cherry*.

Districts 1 2 - - - - 8 - 10 - 12  
Lat. 51°-56°. From South to North of Ireland.

Type in Great Britain, English.

Thickets, hedges, and plantations; rare, and probably introduced. *Fl.* May.

1. In south Cork; *Mr. J. Sullivan*.—2. In North Cork; *I. C.* By the Lee, at Leemount; Blarney Lake, &c., rather rare; *Flor. Cork*. Hallahan's Rock, Fermoy; *Mr. T. Chandlee*.—8. In the demesne of Col. Knox Gore at Ballina; *D. M.*—10. Hedges near Loughgall, Armagh; *A. G. M.*—11. In the townland of Muff, Donegal; *Mr. C. Moore*.—12. On the shores of Lough Neagh, abundantly (*Mr. Thompson*); *Flor. Hib.*

*SPIRÆA* Linn. .1. *S. Ulmaria* (Linn.)—*Meadow-sweet*.

Districts 1 2 3 4 5 6 7 8 9 10 11 12  
 Lat. 51°–56°. Throughout Ireland.

Type in Great Britain, British.

Damp meadows and borders of streams; common. *Fl.* June to August.

2. *S. Filipendula* (Linn.)—*Dropwort*.

District - - - - - 6 - - - - -  
 Lat. 53°–54°. West of Ireland—Galway and Clare.

Type in Great Britain, English, inclining to Germanic.

Calcareous pastures; very local. *Fl.* June, July.

6. At Portumna, in the demesne of Marquis of Clanricarde; *D. M.* Near Gort; *D. M.* Garryland; *A. G. M.* Near Glen Columbkille, in Clare; *Rev. T. O'Mahony*. Abundantly in Glen Columbkille, and in several places thence towards Gort; *Mr. F. J. Foot*. In the barony of Burrin, Clare; *K'Eogh* (1735).

From 100 feet, or less, to 550 in Glencolumbkille (F. J. F.).

[*Spiræa salicifolia* (Linn.) is occasionally seen in hedges and copses, where it has been planted.]

*SANGUISORBA* Linn.1. *S. officinalis* (Linn.)—*Great Burnet*.

Districts - - - - - 8 - - - - - 12  
 Lat. 54°–55°. West and North of Ireland.

Type in Great Britain, Intermediate, inclining to English.

Banks of lakes and rivers, and in damp fields; very rare. *Fl.* June to August.

8. On the stony shores of Lough Cullin, and of Lough Conn, in Mayo, abundantly in many places; *A. G. M.*—  
 12. On a dry bank sloping to the Bann, a mile below Agivey, in Derry; *D. M.* On small gravelly mounds in the townland of Maddykeel, parish of Finvoy, near Rasharkin, Antrim; *D. M.* Plentiful in a field near Donaghadee, on the inland side of the road to Millisle, Down! *Miss Maffett!* Reported as found near Cork, but has not been seen there recently, unless it occur in either of the stations reported for *Poterium Sanguisorba*.

At Lough Cullin, a very little southwards of lat. 54°, and by the Bann a little north of 55°.

*POTERIUM* Linn.

1. *P. Sanguisorba* (Linn.)—*Lesser Burnet*.

Districts 1 2? 3 - 5 6 7 - 9 - - -

Lat. 51°-55°. Middle of Ireland, chiefly.

Type in Great Britain, English.

Pastures and banks on a calcareous soil; local. *Fl.* June, July.

1. Blackrock, but very rare near Cork; *Flor. Cork.*—2. Pasture in the Little Island, Cork; *Drummond*. Not seen by *I. C.* In a field near Kilcree, near Cloyne (Rev. Mr. Pyne); *Prof. E. Murphy*.—3. Enisnag glebe, Kilkenny; and Grennan Queen's County; *Rev. S. Madden*.—5. On Knockmaroon Hill, and on shady banks near the Dodder; *Wade Dubl.* South side of Howth; *the late Mr. J. White*. Feltrum Hill; banks by the shore near Raheny; *Ir. Flor.* Finglas; *Mr. D. Orr*. Gallows Hill, near Athy, Kildare; *Mr. T. Chandlee*. Rocks at Carton, near Maynooth; *Mr. J. Douglas*.—6. At Castle Taylor; and Garryland, Galway; probably frequent in this district; *A. G. M.*—7. In several of the midland counties; *Mr. F. J. Foot*.—9. Ballyshannon; *Admiral Jones*. Not found in the North of Ireland.

*AGRIMONIA* Linn.

1. *A. Eupatoria* (Linn.)—*Common Agrimony*.

Districts 1 2 3 4 5 6 7 8 9 - - 12

Lat. 51°-56°. Throughout Ireland.

Type in Great Britain, British, inclining to English.

Fields, way-sides, and bushy places; *Fl.* June to August.

Local and rather rare in many parts of the west and north of Ireland.

*A. odorata* (Mill.)

Districts 1 2 - - - - - - - - 12

Banks, road-sides, and thickets; very rare.

1. Near Dingle, Kerry, by the road-side on the north of Dingle Bay; *Prof. D. Oliver*. In some quantity by the side

of an old road near Valentia; *Mr. J. Woods*.—2. Near Fermoy! *Mr. T. Chandlee*.—12. On the shores of Lough Neagh, near Shane's Castle! *Prof. C. C. Babington*.

*ALCHEMILLA* Linn.

1. *A. vulgaris* (Linn.)—*Common Lady's Mantle*.

Districts 1 2 3 4 5 6 7 8 9 10 11 12  
Lat. 51°–56°. Throughout Ireland.

Type in Great Britain, British, inclining to Scottish.

Pastures, especially on mountains; frequent. *Fl.* June to August.

*Var. β subsericea* (*A. hybrida* Pers.)

1? Fields near the Lee; *Drummond* (not found since).—  
8. On Mam-Turk and other mountains in Connemara; *Flor. Hib.*—12. On the south side of Cave Hill, near Belfast; *Mr. J. Ball*.

From near sea-level to 2000 feet in Derry.

2. *A. alpina* (Linn.)—*Alpine Lady's Mantle*.

Districts 1 - - - - - 9 - - -  
Lat. 52°–55°. South-west and North-west of Ireland.

Type in Great Britain, Highland.

Mountain cliffs; very rare. *Fl.* June, July.

1. On Brandon Mountain! Kerry; *Flor. Hib.*—9. On Ben Bulben! Sligo; *Flor. Hib.*

Ranges from about 1200 feet on Ben Bulben to 2500 on Brandon.

3. *A. arvensis* (Scop.)—*Parsley Piert*.

*Aphanes arvensis* (Linn.)

Districts 1. 2 3 4 5 6 7 8 9 10 11 12  
Lat. 51°–56°. Throughout Ireland.

Type in Great Britain, British.

Fields and banks upon a light soil; frequent. *Fl.* May to July.

## POTENTILLA Linn.

1. *P. anserina* (Linn.)—*Silver Weed*.

Districts 1 2 3 4 5 6 7 8 9 10 11 12

Lat. 51°–56°. Throughout Ireland.

Type in Great Britain, British.

Meadows, banks, and road-sides in damp places; common.

*Fl.* June, July.2. *P. reptans*, (Linn.)—*Creeping Cinque-foil*.

Districts 1 2 3 4 5 6 7 8 9 10 11 12

Lat. 51°–56°. Throughout Ireland.

Type in Great Britain, English, inclining to British.

Meadows, and pastures, and hedge-banks; common. *Fl.*

June to August.

Perhaps rare or wanting in the extreme west of Ireland.

Not seen by A. G. M. anywhere near Foxford, Mayo.

3. *P. Tormentilla* (Nestl.)—*Tormentil*.*Tormentilla erecta* (Linn.), *T. officinalis* (Sm.), *Flor. Hib.*

Districts 1 2 3 4 5 6 7 8 9 10 11 12

Lat. 51°–56°. Throughout Ireland.

Type in Great Britain, British.

Moors and heathy places; common. *Fl.* June to August.*Var. β P. procumbens* (Sibth.), *Tormentilla reptans* (Linn.).

Occurs here and there occasionally, but is rather rare.

Ranges from about sea-level to 2646 feet on the top of Nephin (*Flor. Ulst.*); and probably higher elsewhere.4. *P. fruticosa* (Linn.)—*Shrubby Cinque-foil*.

Districts - - - - 6 - 8 - - - -

Lat. 53°–54°. West of Ireland—North Clare, and Galway.

Type in Great Britain, Intermediate.

Rocky and bushy places, on a calcareous soil; very local.

*Fl.* June and August.

6. Abundantly on the south-east side of the barony of Burren, where it joins the barony of Inchiquin; *Wade Bar.* Rock Forest, Clare; *Flor. Hib.* Glanquin; *Rev. T. Warren.* Near Ballyvaughan, covering upwards of two acres of

“Turloughs;” also south-east of Glasgeivnagh Hill, north-east of Corrofin; and sparingly in the Formoyle Valley, south of Blackhead; *Mr. F. J. Foot*. Near Headford, Galway; *Flor. Hib.*—8. Amongst rocks on the banks of Lough Corrib, near Lemonfield, Oughterard; *Wade Rar.* Plentiful among limestone rocks on the banks of Lough Crib, in the County of Galloway; *Lhwyl*, 1699 (*Phil. Trans.* xxvii., p. 524.)

5. *P. Fragariastrum* (Linn.)—*Barren Strawberry*.

Districts 1 2 3 4 5 6 7 8 9 10 11 12  
Lat. 51°–56°. Throughout Ireland.

Type in Great Britain, British, inclining to English.

Woods and banks; common. *Fl.* April, May.

*Obs.*—*Potentilla argentea* (Linn.) is given in “*Flora Hibernica*,” as occurring on the Sugar Loaf Mountain, Wicklow; but has not been recently found, and we fear that some other species was mistaken for it.

COMARUM Linn.

1. *C. palustre* (Linn.)—*Marsh Cinque-foil*.

*Potentilla Comarum* (Nestl.) Benth.

Districts 1 2 3 4 5 6 7 8 9 10 11 12  
Lat. 51°–56°. Throughout Ireland.

Type in Great Britain, British, inclining to Scottish.

Bogs and marshy meadows; common. *Fl.* July.

Much more abundant in the west and north.

FRAGARIA Linn.

1. *F. vesca* (Linn.)—*Wood Strawberry*.

Districts 1 2 3 4 5 6 7 8 9 10 11 12  
Lat. 51°–56°. Throughout Ireland.

Type in Great Britain, British.

Woods and thickets; frequent. *Fl.* May, June.

[*F. elatior* (Ehrh.) is naturalized near the old castle in the demesne at Shane’s Castle, Antrim; and was found naturalized in the lower part of Dunscombe’s Wood, Cork, by Mr. Drummond.]



RUBUS Linn.

In this *genus* we are indebted to Professor C. C. Babington for the following localities, which he has kindly extracted from his forthcoming Monograph of British *Rubi*. Their distribution in Ireland is very imperfectly known.

1. *R. idæus* (Linn.)—*Raspberry*.

Districts 1 2 3 4 5 6 7 8 9 - 11 12  
 Lat. 51°-56°. Throughout Ireland.

Type in Great Britain, British, inclining to Scottish.

Woods, thickets, and rocky places; frequent. *Fl.* June.

Ranges from about sea-level to 1,600 feet on Slieve Gullion, Derry.

2. *R. suberectus* (Anders.)

Districts 1 - - - - - 8 - - - 12

1. Cork; *Flor. Hib.*—8. Headfort, Galway; *Flor. Hib.*—12. Deerpark, Newtown-Limavady, Derry; *D. M.*

From 50 to 300 feet in Derry.

3. *R. fissus* (Lindley).

District - - - - - - - - - 12

12. By the Foyle, Derry; *D. M.*

4. *R. plicatus* (W. and N.)

Districts 1 - - - 5 - 7 - - - 12

1. Bantry; *C. C. B.*—5. Meath; *D. M.*—7. West Meath; *D. M.*—12. Kilrea, Derry; *D. M.*

5. *R. affinis* (W. and N.)

District 1 - - - - - - - - - -

1. Killarney; *C. C. B.*

6. *R. discolor* (W. and N.)

*R. fruticosus* (Linn.) Auct. Plur.

Districts 1 - 3 - 5 - - - - 10 - 12

1. Mucruss, Killarney; *C. C. B.*—3. Kilkenny; *C. C. B.*—5. New Grange, Meath; *C. C. B.*—10. Armagh; *Prof. Oliver*—12. Belfast; *Rev. W. M. Hind*. Frequent in most parts of Ireland.

From sea-level to 500 feet in Derry.

7. *R. thyrsoides* (Wimm.)

District - - - - - - - - - 12

12. Near Ben Evenagh, Derry; *D. M.*

8. *R. leucostachys* (Smith).

Districts 1 - - - - 6 - 8 - - - 12  
 1. Near Killarney; *C. C. B.*—6. East Galway; *C. C. B.*—  
 8. Connemara; *C. C. B.*—12. Belfast, Antrim, and Derry;  
*D. M.*

9. *R. calvatus* (Bloxam).

Districts 1 - - - - - - - - - 12  
 1. Mucruss, Killarney; *C. C. B.*—12. Frequent in Derry;  
*D. M.*

10. *R. carpinifolius* (W. and N.)

District 1 - - - - - - - - - -  
 1. Turk Mountain and Derrynane, Kerry; *C. C. B.*

11. *R. villicaulis* (W. and N.)

Districts 1 2 - - 5 - - - - - 12  
 1. Killarney; *C. C. B.*—2. Waterford; *C. C. B.*—5. Meath;  
*D. M.*—8. Maam, Connemara; *C. C. B.*—12. Bushmills,  
 Antrim; *C. C. B.*

12. *R. macrophyllus* (Weihe).

Districts 1 - - 4 - - - - - - - 12  
*Var. α umbrosus*, (Arrh.)

12. By the side of the Lagan, near Belfast; *Mr. G. Tate.*

*Var. β macrophyllus*, W. and N.

1. Killarney; *C. C. B.*—12. Derry; *D. M.* Black Mountain, in Antrim; *Rev. W. M. Hind.*

*Var. γ Schlechtendalii* (W. and N.)

1. Killarney; *C. C. B.*—4. Wicklow; *C. C. B.*

*Var. δ amplificatus* (Lees).

12. Carnmoney, near Belfast; *Mr. G. Tate.*

*Var. ε glabratus* (Bah.)

1. Killarney; *C. C. B.*

13. *R. Hystrix* (Weihe).

District 1 - - - - - - - - - -  
 1. Killarney; *C. C. B.*

14. *R. rosaceus* (Weihe).

Districts 1 - - - - - 7 - - - - -  
 1. Killarney; *C. C. B.*—7. Ladiston, Mullingar; *D. M.*

15. *R. rudis* (Weihe).

Districts - - - 4 - - - 8 - - - -  
 4. Wicklow; *D. M.*—5. New Grange, Meath; *C. C. B.*

16. *R. Radula* (Weihe).

District - - - - -  
*Var. c. denticulatus* Bab.  
 12. Kilrea, Derry; *D. M.*

17. *R. Koehleri* (Weihe).

Districts 1 - - - - - 12  
 1. Killarney; *C. C. B.*—12. Carnmoney, near Belfast; *Mr. G. Tate.*  
*Var. c. pallidus* Weihe.  
 1. Killarney; *C. C. B.*

18. *R. Guntheri* (Weihe).

District - - - - - 12  
 12. By the road from Garvagh to Kilrea, Derry; *D. M.*

19. *R. humifusus* (Weihe).

District - - - - - 12  
 12. By the Foyle, above Londonderry; *D. M.*

20. *R. glandulosus* (Bellardi).

District 1 - - - - -  
 1. Foot of Turk Mountain, Killarney; *C. C. B.*

21. *R. Balfourianus* (Bloxam).

Districts 1 - - - - - 12  
 1. Killarney; *C. C. B.*

22. *R. corylifolius* (Smith).

Districts - - - 4 - - - 8 - - - 12  
 4. Wicklow; *D. M.*—12. Brett's Glen, Down; and Funchanhayle, &c., Derry; *D. M.*  
*Var. β conjungens* (Bab.)  
 12. Lagan side and Carnmoney hill, near Belfast; *Mr. G. Tate.*  
*Var. γ purpureus* (Bab.)  
 8. Roundstone; *Prof. Oliver.*—12. Brett's Glen, Down; *D. M.*

23. *R. tuberculatus* (Bab.)

Districts - - 3 - 5 - - - - -

3. By the river at Kilkenny; *C. C. B.*—5. New Grange, Meath; *C. C. B.*

24. *R. cæsius* (Linn.)—*Dewberry*.

Districts 1 2 - - - 6 - - - - - 12

1. Killarney; *C. C. B.*—2. Fermoy, North Cork; *C. C. B.*—6. Ballinasloe; and Great Island of Arran; *C. C. B.*—12. By Lough Neagh; *C. C. B.*

Not unfrequent in stony places on limestone throughout Ireland. Occurs on the sandhills at Tramore, Waterford; *I. C.*

25. *R. saxatilis* (Linn.)—*Stone Bramble*.

Districts 1 - 3 4 5 6 7 8 9 10 11 12

Lat. 51°–56°. West and North of Ireland chiefly.

Type in Great Britain, Scottish, inclining to Highland.

Stony places in hilly districts, and on the shores of the larger lakes; frequent. *Fl.* June, July.

1. Shores of the Lakes at Killarney; *C. C. B.*—4. Between Lough Dan and Luggelaw; *Ir. Flor.*—3. In a wood near Edenderry (Mr. Heaton) *How Phyt. Brit.* (1650). In the Dargle, by the river side; *Ir. Flor.*—5. Monasterevan, *Threlkeld*. Kelly's Glen, Dublin; *D. M.* On Kilgobbin mountain, County Dublin, sparingly; *Wade Rar.*—6. Common about Castle Taylor and Garryland, Galway; *A. G. M.* Abundant in Burren; *Mr. F. J. Foot.*—7. Shores of Lough Ennel and of Lough Ree; *Mr. F. J. Foot.* Wood near Edenderry, King's County; *Threlkeld.*—8. Shores of Lough Corrib; *A. G. M.* Bilberry Island; *Wade Rar.* Shores of Loughs Cullen and Conn; *A. G. M.*—9. By Lough Carra; *A. G. M.* Glenade and Legale, Sligo; and Larkfield, Leitrim; *Admiral Jones.*—10. Patton's Glen, Tyrone; *Admiral Jones.*—11. Glen Hope, Barnesmore Mountains; *Admiral Jones.* North of Donegal; *Mr. C. Moore.*—12. Between Ballyheidu and Newtownards, Down; *Ir. Flor.* Colin Glen; Cave Hill; Carr's Hill; Black Mountain; *Flor. Ulst.* Abundant in rocky places and glens in the north of

Antrim; also on Ben Evenagh, Errigal banks, &c., in Derry; *D. M.*

From 50 feet or lower in the west of Ireland to 1,000 feet in Derry.

26. *R. Chamæmorus* (Linn.)—*Cloud-berry*.

District - - - - - 10 - -

Lat. 54°-55°. North of Ireland—Tyrone only.

Type in Great Britain, Highland.

Boggy mountain heaths; very rare. *Fl.* June.

10. On the top of Glengana mountain, in the Stranagally range, County Tyrone (abundantly in 1826); *Prof. E. Murphy*. Admiral Jones, who was with Professor Murphy when the plant was found, describes the locality as lying between Mr. Kennedy's Lodge (Lough Ash) and Dart mountain, to the west of Dart, and close to the boundary between the Counties of Tyrone and Derry.

*DRYAS* Linn.

1. *D. octopetala* (Linn.)—*Mountain Avens*.

Districts 1 - - - - 6 - 8 9 10 11 12

Lat. 52° or 53°-56°. West and North of Ireland.

Type in Great Britain, Highland.

On limestone and basaltic hills; very local. *Fl.* June, July.

1. On the hills near the passage into the Upper Lake of Killarney; *Smith's "Kerry."* Lhwyd notices its occurrence in Munster, but without giving any special locality. On high grounds, between the Barony of Muskerry and the County of Kerry; *Smith's "Cork."* Plentiful about Castle Taylor, Galway; *A. G. M.*—6. In the mountains betwixt Gort and Galloway; (Mr. Heaton) *How. Phyt. Brit.* (1650). Abundant in the Burren district of Clare; *Wade Rar.* (often occurring with double flowers; *Mr. F. J. Foot*).—8. On limestone drift at sea level on Blake Hill, west of Lough Corrib; *Prof. Melville*. On the north side of Galway Bay; *Mr. John Sim*. 9. On mountains near Sligo; *Lhwyd*, 1712. On Ben Bulben; *Flor. Ulst.* On Ben Bulben (*var. depressa*);

*C. C. B. Legale*, Sligo; *Admiral Jones*. In County Leitrim (but rare); *Mr. John Wynne*.—10. At Poula-phouca, near Churchhill, County Fermanagh; *Wade Bar*. 11. Rocks at Ballyshannon; *Flor. Ulst.*—12. Abundant on Ben Evenagh, Derry; *D. M.*

From sea-level in Galway to 1100 feet on Ben Evenagh, Derry, and higher on Ben Bulbin.

First noticed in Galway by *Mr. Heaton* previous to 1650.

### GEUM Linn.

#### 1. *G. urbanum* (Linn.)—*Wood Avens*.

Districts 1 2 3 4 5 6 7 8 9 10 11 12  
Lat. 51°–56°. Throughout Ireland.

Type in Great Britain, British, inclining to English.

Damp woods and shady places; frequent. *Fl.* June, July.

#### 2. *G. rivale* (Linn.)—*Water Avens*.

Districts 1 2 3 4 5 6 7 8 9 10 11 12  
Lat. 51°–56°. From South to North of Ireland.

Type in Great Britain, British, inclining to Scottish.

Marshy and boggy places, and on limestone crags in Burren. *Fl.* June, July.

1. Killarney; *Smith's "Kerry."* 1. and 2. Rare near Cork, but occurs in both districts; *I.C.* and *Flor. Cork*. Rather rare in the east of Ireland; frequent in the west and north. Very luxuriant on the limestone in Burren; *Mr. J. F. Foot*.

*Hybrid (G. intermedium Ehrh.)*.

6. In Garryland Wood, near Gort; *A. G. M.*—10. In a copse at Loughgall Manor, Armagh; *A. G. M.*—12. Carr's Glen, Cave Hill; side of the new Lisburn road, two miles from Belfast; *Flor. Ulst.* Near Ballymena; *D.M.* Forth River; *Miss Maffett*. Near Cushendall; *Mr. C. Moore*.

*G. intermedium* is certainly a hybrid between *G. urbanum* and *G. rivale*. The late Dr. Bell Salter produced it in his garden at Ryde, by interchanging the pollen of the two plants.

## ROSA Linn.

1. *R. spinosissima* (Linn.)—*Burnet Rose*.

Districts 1 2 3 4 5 6 - 8 9 - 11 12

Lat. 51°-56°. From South to North of Ireland.

Type in Great Britain, British.

Heathy and rocky places; rare inland; frequent near the sea. *Fl.* May, June.

From sea-level to 1000 feet in Derry.

2. *R. hibernica* (Smith.)—*Irish Rose*.*R. villosa* var. Bentham.

District - - - - - 12

Lat. 54°-56°. North-east of Ireland.

Type in Great Britain, Intermediate.

Hedges and bushy or rocky places; very rare. *Fl.* June, July.

12. In hedges on the shore, near Holywood, Belfast Harbour; (Mr. Templeton), *Flor. Hib.* South bank of Lagan, below Stranmills; hedgerows half way between Holywood and Belfast: On road-side at Richmond Lodge; Glen, at Magilligan, Derry; *Flor. Ulst.* Hedge, Tillysburn; *Flor. Belf.*

*Var. β glabra.*

12. On rocks between Umbra and Ben Evenagh, and on basaltic cliffs on Ben Evenagh, sparingly; rocks in the little Deer Park, Glenarm; *D. M.* This variety has large pink-coloured flowers; the stems and branches are closely covered with setæ; the leaves are rounder than in the normal state of the plant, and quite smooth on the under side.

Ranges from about sea-level to 1000 feet on Ben Evenagh.

*R. hibernica* is given in Mr. J. Drummond's list as common throughout the County of Cork. Some other rose was probably mistaken for it?

3. *R. Sabini* (Woods.)—*Sabine's Rose*.*R. villosa* var. Bentham.

Districts 1? - - - - - 8? 9 - - 12

Lat. 53°-56°. West and North of Ireland.

Type in Great Britain, probably Intermediate.

Bushy and rocky places; rare. *Fl.* June.

1. ? Hedges near Fermoy; (Mr. Drummond), not seen by Mr. Chandlee.—8. ? Near Clifden, Connemara; *Rev. W. M. Hind.*—9. On the east shore of Lough Carra, Mayo; *A. G. M.*—12. Near Umbra rocks, Magilligan, and in Bennedy Glen, near Dungiven, Derry, rather plentiful. Not unfrequent in the glens of Antrim, as at Glenariff, Glenarm, Garron Head, Tor Glen, &c.; *D. M.*

*Var. β R. Doniana* (Woods.)

12. On a gravelly bank (old raised beach) at Magilligan, Derry; and at Glenariff and Garron Head, Antrim; *D. M.*

*Var γ gracilis* (Woods.)

12. Bennedy Glen, near Dungiven, Derry; *D. M.*

*R. Wilsoni* (Borrer.)

District - - - - - 12

Rocky places; very rare.—12. Sparingly at Umbra rocks, Magilligan, Derry; *D. M.* The specimens collected in 1836 are exactly identical with plants recently sent by Mr. Wilson himself from the original station at Menai-bridge.

4? *R. villosa* (Linn.)—*Villous Rose*.

District - - - - - 12

Lat. 54°–56°. North-east of Ireland—Derry and Antrim.

Type in Great Britain, probably Scottish.

Heathy or bushy places, and among rocks; rare and local. *Fl.* June, July.

12. In Bennedy Glen, near Dungiven; Draperstown; and at Umbra rocks, Magilligan, Derry; near Glenarm; between Glenariff and Garron Head; and on Cave Hill, Antrim; *D. M.*

Said to grow near Cork (*Flor. Cork*). On Ireland's Eye, Dublin (*Wade Rar.*); and in a glen at Carrimagough, near Collon, Louth (*Ir. Flor.*); but we suspect that these localities produce *R. tomentosa* only.

5. *R. tomentosa* (Sm.)—*Downy-leaved Rose*.

Districts 1 2 - 4 5 6 - 8 9 10 11 12

Lat. 51°–56°. From South to North of Ireland.

Type in Great Britain, British.



Bushy places; common in the north and west of Ireland.  
*Fl.* June, July.

1. and 2. Common in south and north Cork; *I. C.* Glanseskin and Castle-Hyde, near Fermoy, but rare; *Mr. T. Chandlee*. In Waterford; *I. C.*—4. and 5. Glens in the Wicklow and Dublin mountains; *Mackay, Cat. Ir.* Nine-tree Hill, near Ballitore, Kildare; *I. C.* Glen at Carrigmough, near Collon, Louth; (*R. villosa*), *Ir. Flor.*—6. At Castle Taylor and Garryland, Galway; *A. G. M.* Frequent, and in many places abundant, in Districts 8, 9, 10, 11, and 12.

This is the commonest rose of the northern counties, but is found much more sparingly in the south-east of Ireland. It is very variable; one of the most distinct forms is that figured in English Botany (tab. 1896) under the name of *R. scabriuscula* (Winch), whose flowers are nearly pure white, delicately tipped with crimson, and its leaves more glandular than in *R. villosa* and *R. tomentosa*; it retains these characters in cultivation, and has come true from seed for two generations. Another remarkable form, common on the trap and limestone rocks of Antrim, has the leaves less hairy, the spines on the shoots shorter and not much hooked, with small flowers, resembling those of *R. micrantha*.

Ranges from 10 to 600 feet in Derry.

### 5. *R. micrantha* (Smith)—*Small-flowered Briar*.

*R. rubignosa* var. Bentham.

Districts 1 2 - - - - -

Lat. 51°-54°. South of Ireland—Cork only.

Type in Great Britain, English.

Hedges and thickets; very local. *Fl.* June, July.

1 and 2. Rather frequent along the Bandon river, and about Cork and Kinsale in the neighbourhood of the coast; *I. C.* Hedges near Evergreen; Glanmire road; *Flor. Cork*.

6. † *R. rubiginosa* (Linn.)—*Sweet-Briar*.

Districts — — — — — — — — — — 12

Lat. 51°–55° or 56°. North-east of Ireland.

Type in Great Britain, English.

12. Near Belfast (Mr. Templeton). Thickets near Oldstone, Antrim; *Flor. Ulst.* Banks of the Roe and Agivey rivers, and road-side hedges near Kilrea, Derry; *D. M.* On chalk rocks above Larne, Antrim; *D. M.* Often planted in hedges, and possibly introduced in Derry and Antrim, though occurring in apparently wild localities.

Mr. Carroll believes that *R. micrantha* was mistaken for *R. rubiginosa* in the neighbourhood of Cork.

7. *R. canina* (Linn.)—*Dog Rose*.

Districts 1 2 3 4 5 6 7 8 9 10 11 12

Lat. 51°–56°. Throughout Ireland.

Type in Great Britain, British.

Hedges and thickets; common. *Fl.* June, July.*Var. β cæsia* (*R. cæsia*, Sm.)

Plentiful near Belfast (Mr. Templeton); *Flor. Hib.* Dungiven and Kilrea, Derry; *D. M.* Ram's Island, Lough Neagh; New Lodge road, Belfast; *Flor. Ulst.* Said to be common in many parts of Cork.

The nature of this work will not allow of our entering fully into the critical distinction of the numerous forms of British roses, which have been lately put forward by Mr. J. G. Baker. It must suffice to say that the four varieties noticed in the principal British Floras have all been found in the north of Ireland, viz., *R. Forsteri*, *R. sarmentacea*, *R. dumetorum*, and *R. surculosa*; while Mr. Baker, who has kindly examined a large series from the counties of Antrim and Derry, recognizes among them the forms *lutetiana*, *dumalis*, *urbica*, *dumetorum*, *pruinosa*, *subcristata*, *andevagensis*, *verticillacantha*, and *Blondæana*, of his "Review of the British Roses," and several others which he has not yet described.

Ranges from sea-level to 1000 feet in Derry.

8. *R. systyla* (Woods.)—*Columnar-styled Rose.**R. canina* var. Bentham.

Districts 1 2 - - - - -

Lat. 51°-52°. Extreme South of Ireland—Cork only.

Type in Great Britain, English.

Hedges and thickets; very rare. *Fl.* June, July.1 and 2. Hedges at Evergreen; and many places about Cork; *Flor. Cork.* On rocks at Myrtle-hill, near Cork! perhaps planted; *I. C.*9. *R. arvensis* (Huds.)—*Trailing Rose.*

Districts 1 2 3 4 5 6 - 8 - - - 12

Lat. 51°-56°. South and Middle of Ireland chiefly.

Type in Great Britain, English.

Hedges and thickets: frequent in the southern and mid-land counties, rare in the north. *Fl.* June, July.Rare in Antrim and Derry. By the side of Lough Neagh, near Salterstown; hedges near Moneymore and Garvagh; *D. M.* Tullamore Park; Glenarm; Ballinahinch; Ballycastle; *Flor. Ulst.* In the west of Ireland, occurs as far north as Killala, Mayo.[*R. Dicksoni* (Lindl.), formerly supposed to have been found wild in the south of Ireland by Mr. Drummond, was probably sent by him from the Cork Botanic Garden; see *Flor. Hib.*][*R. cinnamomea* (Linn.) was observed in 1835 naturalized in hedges near Clady, Derry, where it had no doubt been planted. It has also been planted in hedges at Woodlands, near Dublin: and in the park at Knocklofty, Clonmel; *Mr. T. Anderson.*][*R. involuta* (Sm.) is included in the *Flora of Cork* (on the authority of Dr. Hinks) as found at Glengariff by Mr. Drummond, but is not included in Mr. Drummond's own list.][*R. inodora* (*Flor. Hib.*, p. 99). Dr. Mackay's specimens labelled as from Portmarnock, include two species. One is *R. tomentosa*; the other is referred by Mr. J. G. Baker to *R. rubiginosa*. The specimen quoted in the "*Flora of Ulster*" is not now to be found in the Herbarium of the Nat. Hist. Society at Belfast, nor was its locality certain.]

## CRATÆGUS Linn.

1. *C. Oxyacantha* (Linn.)—*Hawthorn* or *White-thorn*.

Districts 1 2 3 4 5 6 7 8 9 10 11 12

Lat. 51°–56°. Throughout Ireland.

Type in Great Britain, British.

Hedges and thickets, rocky places, &c.; common. *Fl.* May, June.

From sea-level to 1000 feet in Derry.

## PYRUS Linn.

1. *P. Malus* (Linn.)—*Crab-tree*.

Districts 1 2 3 4 5 - 7 8 9 - - 12

Lat. 51°–56°. From South to North of Ireland.

Type in Great Britain, English.

Hedges and copses; not common. *Fl.* May.

Rare in the west, where suitable localities are fewer, and probably often an escape from cultivation.

2. *P. Aucuparia* (Gaert.)—*Mountain Ash*.

Districts 1 - - 4 5 6 7 8 9 - 11 12

Lat. 51°–56°. From South to North of Ireland.

Type in Great Britain, British.

Hilly woods, and rocky or heathy places; frequent in mountainous districts. *Fl.* May, June.

Common in mountainous situations, especially in the north of Ireland, but often planted in the more level counties.

Ranges from near sea-level to 1200 feet on Sawell, Derry.

3. *P. Aria* (Sm.)—*White Beam Tree*.

Districts 1 (2) - 4 5 (6) - 8 9 - - 12

Lat. 51°–56°. West and North of Ireland chiefly.

Type in Great Britain, English.

Mountainous woods and rocky cliffs; very local. *Fl.* May, June.

1. On rocks round Killarney Lake; *Smith's "Kerry"* (under *Sorbus*) Killarney; *C. C. B.*—(2). Planted near Cork; *Prof. Murphy*.—4. Glenree, Wicklow; *Mr. J. Ball*.—5. Hedges to the west side of Howth; *Wade Rar.* Howth, on the

north-east side, growing out of a rocky mountain; *Ir. Flor.*—(6). About Castle Taylor and Garryland, Galway, probably not indigenous; *A. G. M.*—8. Many places in Connemara; *Wade Rar.* and *Flor. Hib.* Shores of Lough Conn, Mayo; *A. G. M.*—9. On the cliffs of Bèn Bulben; *Flor. Ulst.* (*P. Rupicola*, Syme).—12. Not unfrequent along the rocky coast of Antrim; *D. M.* Glenarm, and in the low glens of Antrim; *Ir. Flor.* Umbra rocks, and between them and Ben Evenagh, Derry; *D. M.* Near Ballycastle (*P. Rupicola*, Syme); *D. M.*

Ascends to 900 feet in Derry, and higher on Ben Bulben.

[*Pyrus communis* (Linn.) is included in the *Flora of Cork* as certainly introduced in its single locality “on rocks below Fermoy.” Mr. G. Tate also finds it in a hedge at Throne Mount, Antrim-road, near Belfast; *Flor Belf.* In neither locality does the plant appear to be wild.]

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## ORDER XXIII.—LYTHRACEÆ.

### LYTHRUM Linn.

#### 1. *L. Salicaria* (Linn.)—*Purple Loose-strife.*

Districts 1 2 3 4 5 6 7 8 9 10 11 12

Lat. 51°–56°. Throughout Ireland.

Type in Great Britain, English, inclining to British.

Ditch-banks and watery places; common. *Fl.* July, August.

#### 2. ? *L. hyssopifolium* (Linn.)—*Hyssop-leaved Loose-strife.*

District - - - 4? - - - - - - - - -

Lat. 52°–53°. South-east of Ireland—Wexford only.

Type in Great Britain, Germanic.

On moist ground flooded in winter; very rare. *Fl.* August.

4. ? Ballymadder, near Bannow, Wexford (Mr. James Tardy); *Flor. Hib.* This plant has not been found of late years, but as it is a species very uncertain in its localities, we cannot venture to exclude it, trusting that close search

may lead to the re-discovery of this interesting species, which is one of the rarest belonging to the Irish Flora. As belonging to Watson's Germanic type, the occurrence of this plant in the south-east of Ireland is of high interest.

*PEPLIS* Linn.

1. *P. Portula* (Linn.)—*Water Purslane*.

Districts 1 2 3 4 5 6 7 8 9 10 11 12  
 Lat. 51°–56°. Throughout Ireland.

Type in Great Britain, British.

Watery places, and in rills; common. *Fl.* July, August.

From sea-level to tops of the mountains in Dublin and Mayo.

ORDER XXIV.—ONAGRACEÆ.

*EPILOBIUM* Linn.

1. *E. angustifolium* (Linn.)—*Rose-bay*.

Districts - - - 4 5 - - - 11 12  
 Lat. 53°–56°. East and North of Ireland.

Type in Great Britain, British.

Wet banks and rocky places; rare and very local. *Fl.* July.

4. At the Scalp, near Enniskerry, among loose rocks; *Flor. Hib.*—5. Along a river-side near Margate, near Collon, Louth; *Ir. Flor.*—11. Ravine at Glen Giveny, Innishowen; Errigal Mountain, near Gweedore; *Flor. Ulst.*—12. Wolf Hill Glen; *Flor. Belf.* Plentiful at the Waterfall in Woodburn Glen; *Mr. S. A. Stewart*; Cave Hill; Head of Six-mile-water; Murlough Rocks; Ballycastle; *Flor. Ulst.* Shore between Tor-point and Fair Head, Antrim; *Ir. Flor.* Not rare along the basaltic range from Umbra to Clonty-gearagh, Derry; often occurring near the tops of the mountains, and on the sides of subalpine glens; *D. M.* Frequent among rocks and in thickets, in Down; *Mr. D. Orr.* (Naturalized only near Blackpool; *Flor. Cork.*)

Ranges from 100 to 1100 feet in Derry and Antrim.

2. *E. hirsutum* (Linn.)—*Great Willow-herb.*

Districts 1 2 3 4 5 6 7 8 9 - 11 12

Lat. 51°–56°. Throughout Ireland.

Type in Great Britain, British, inclining to English.

Wet places, and banks of rivers and streams; frequent.  
*Fl.*Rather rare in the south; *I. C.*—3. Common in Kilkenny; *Rev. S. Madden*; and frequent in many parts of the east, centre, and north of Ireland. Rare, apparently, in the extreme west, as about Foxford, Mayo.3. *E. parviflorum* (Linn.)—*Small-flowered Willow-herb.*

Districts 1 2 3 4 5 6 7 8 9 10 11 12

Lat. 51°–56°. Throughout Ireland.

Type in Great Britain, British, inclining to English.

Watery and marshy places; common. *Fl.* July, August.From sea-level generally, to "high elevations on Slieve Donard;" *Flor. Ulst.*4. *E. montanum* (Linn.)—*Smooth Willow-herb.*

Districts 1 2 3 4 5 6 7 8 9 10 11 12

Lat. 51°–56°. Throughout Ireland.

Type in Great Britain, British.

Woods, banks, and rocky places; common. *Fl.* June, July.*Var. β collinum*, (Koch.)On the Black Mountain, near Belfast! *Mr. D. Orr.*

Ranges from sea-level to 600 feet or more.

5. † *E. roseum* (Schreb.)—*Pale Willow-herb.*

District - - - - - 12

Lat. 54°–55°. North-East of Ireland. Near Belfast only.

Type in Great Britain, English.

Cultivated and waste ground; very rare. *Fl.* July, August.12. Waste ground near Linfield Mill, at Sandy-row, Belfast, in and about some old brick-fields! *Mr. D. Orr.* Near Belfast Workhouse (*Mr. Orr.*); fields near the terminus

of Ulster Railway at Belfast (Mr. W. H. Ferguson); *Flor. Ulst.* The other two localities of "Banks of Lagan, near Cranmore," and "Glen in the Holywood Hills," require confirmation, since they may prove the plant to be an undoubted native. At present the kind of station seems rather suspicious.

6. *E. (tetragonum) obscurum* (Schreb.)—*Square-stalked Willow-herb.*

Districts 1 2 3 4 5 6 7 8 9 10 11 12  
Lat. 51°–56°. Throughout Ireland.

Type in Great Britain, British.

Damp and marshy places; common. *Fl.* July, August.

*Obs.*—*E. obscurum* (Schreb.) is the only form yet found in Ireland. The typical *E. tetragonum* (Linn.) which is by many botanists considered a distinct species, has not come under our notice.

7. *E. palustre* (Linn.)—*Marsh Willow-herb.*

Districts 1 2 - 4 5 6 - 8 9 - 11 12  
Lat. 51°–56°. Throughout Ireland.

Type in Great Britain, British.

In boggy and marshy places; common. *Fl.* July, Aug.

Very frequent in suitable localities throughout the country, and doubtless grows in the three districts not filled in above.

[*Ænothera biennis* (Linn.) occurs occasionally as an escape from cultivation.]

*CIRCÆA* Linn.

1. *C. lutetiana* (Linn.)—*Enchanter's Nightshade.*

Districts 1 2 3 4 5 6 7 8 9 10 11 12  
Lat. 51°–56°. Throughout Ireland.

Type in Great Britain, British, inclining to English.

Woods, thickets, and shady places; frequent. *Fl.* June to August.

2. *C. alpina* (Linn.)—*Alpine Enchanter's Nightshade.*

Districts - - - - - 8 9 10 11 12  
Lat. 53°–56°. North-west and North of Ireland.

Type in Great Britain, Scottish, inclining to Highland.



Shady mountain glens and stony thickets; local. *Fl.* July, August.

8. On the public road at Drimcong, between Galway and Oughterard, and in various mountainous spots in Connemara; *Wade Rar.* Mountains about Ballinahinch; *the late Mr. J. White.*—9. Strabane Glen, Tyrone; *Admiral Jones.* Ben Bulben; *Flor. Ulst.*—11. Plentiful on the hills near Dunfanaghy, Donegal; *Prof. E. Murphy.* Innishowen Head; *Flor. Ulst.*—12. Moneymore; Colin Glen; Cliftonville Belfast; Shane's Castle; Cave Hill; Muff Glen, Faughanvale, Derry; *Flor. Ulst.* Frequent (with *var. intermedia*) in subalpine woody glens in Antrim and Derry; *D. M.*

*Var. β intermedia* (Ehrh.)

Cave Hill, near Belfast, and on the banks of the Erne, near Enniskillen; *Mr. J. Ball.* In the counties of Antrim and Derry; *D. M.*

Ranges from about 50 feet in Galway to 300 feet in Derry.

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## ORDER XXV.—HALORAGACEÆ.

### MYRIOPHYLLUM Linn.

1. *M. verticillatum* (Linn.)—*Whorled Water-Milfoil.*

Districts 1 2 - - 5 6 - 8 9 - - 12  
Lat 51°–56°. From South to North of Ireland.

Type in Great Britain, English, inclining to Germanic.

Ditches and ponds; rare. *Fl.* June to August.

1 and 2. Ballyphehane Bog, Cork; *Drummond.* Dunsfort Bog; Middleton and other Bogs, rather rare; *Flor. Cork.* In south and north Cork; *I. C.*—5. Ditches along the banks of the canal from the Crossguns to Scribblestown; old quarry-holes about Finglas-bridge; in the city basin, Dublin; *Ir. Flor.* Ballitore, Kildare; *I. C.*—6. Plentiful about Limerick; *Flor. Hib.*—8. Near Ballinahinch, Connemara; *Mackay Rar.* Plentiful; *D. M.*—9. Ditches near Hollymount and near Lough Carra, Mayo; *A. G. M.*—12. Bog drains, Portmore Park; *Flor. Ulst.* Drains near Lough Beg, Antrim; *D. M.*

The form *pectinatum* occurs here and there along with the usual state of the plant.

2. *M. spicatum* (Linn.)—*Spiked Water-Milfoil*.

Districts 1 2 - 4 5! 6! 7! - - - - 12!  
 Lat. 51°-56°. Throughout Ireland probably.

Type in Great Britain, British?

Ponds and ditches; frequent. *Fl.* June, July,

Apparently not uncommon in many parts of the country, but has not been sufficiently distinguished from the following.

3. *M. alterniflorum* (D C.)—*Alternate-flowered Water-Milfoil*.

*M. spicatum* var. Bentham.

Districts 1 - 3 4 - 6 - 8 9 - 11 -  
 Lat. 51°-56°. Throughout Ireland.

Type in Great Britain, British.

Ditches and ponds, especially on a boggy soil; frequent.  
*Fl.* June to August.

Much more abundant than *M. spicatum* in the west; plentiful in many parts of Ireland, and probably distributed throughout the country, but has, no doubt, often been passed over as *M. spicatum*.

HIPPURIS Linn.

1. *H. vulgaris* (Linn.)—*Mare's-tail*.

Districts 1 2 3 4 5 6 7 8 9 10 11 12  
 Lat. 51°-56°. Throughout Ireland.

Type in Great Britain, British?

Ditches and slow streams, margins of lakes, &c.; frequent.  
*Fl.* June, July.

Rather rare about Cork and Fermoy; local also in Ulster, but appears widely and generally distributed in Ireland.

ORDER CUCURBITACEÆ.

*Obs.*—*Bryonia dioica* (Linn.) is noticed by Threlkeld as having been brought to him from Carlow. Mr. Carroll has informed us that there is in Miss Grubb's collection a specimen

which was collected, in 1803, by Mr. R. Davis, at Lismore, Waterford, where Mr. Carroll thinks that it was probably an escape from cultivation. The Rev. J. Cooke remembers to have seen the *Bryonia* growing on an old fence in the glebe, at the Rectory, Tramore; so that search should be made for other localities in the south of Ireland.

## ORDER XXVI.—PORTULACEÆ.

## MONTIA.

1. *M. fontana* (Linn.)—*Water Blinks*.

Districts 1 2 3 4 5 6 7 8 9 10 11 12  
 Lat. 51°–56°. Throughout Ireland.

Type in Great Britain, British.

Watery places and on wet ground; common. *Fl.* April to August.

The form *rivularis* also occurs not unfrequently in springs and rills.

## ORDER XXVII.—PARONYCHIACEÆ.

## LEPIGONUM Fries.

1. *L. rubrum* (Fries)—*Purple Sandwort*.

*Arenaria rubra* (Linn.) *Flor. Hib.*, &c. *Spergularia rubra* (Pers.)

Districts - - - - 5 - - - - - 12  
 Lat. 53°–55°. East? of Ireland.

Type in Great Britain, British?

Sandy and heathy places; rare. *Fl.* May to August.

5. Along the Canal from Dublin to Castlenock; *Ir. Flor.*—  
 12. By the side of the Mayola! near Draperstown, Derry;  
*D. M.*

Probably occurs in many other places, but the above are the only inland stations which we can quote at present. There can be no doubt that nearly all the sea-side localities given for "*Arenaria rubra*," belong either to *L. salinum* or to *L. Rupicola*.

2. *L. Rupicola* (More)—*Rock Sandwort*.

*Spergularia rupestris vel rupicola* (Lebel. MS.), *S. rubra* var.

Bentham. *S. marina* var. Brit. Flor.

Districts 1 2 - 4 5 6 - - - 11 12

Lat. 51°-56°. Rocky coasts of all Ireland.

Type in Great Britain, Atlantic or English.

Cliffs and rocky places on the coast; frequent. *Fl.* June to August.

1 and 2. Frequent along the coasts of Cork and Waterford (probably this species); *I. C.*—4. At Bray Head, Wicklow; *A. G. M.*—5. Plentiful at Howth; *A. G. M.*—6. Cliffs at Kilkee; *Mr. N. B. Ward* (probably this species). Isles of Arran in Galway Bay! *Prof. D. Oliver* ("*L. marinum* var.").—11. Moville! Donegal; *Mr. C. Moore.*—12. Coast of Antrim! *C. C. B.*

This has been noticed by different botanists, under the names of "*Arenaria rubra*" (perennial variety), "*A. media*," and even of "*A. marina*," but its character and appearance are quite constant and recognizable, and it appears entitled to rank as a distinct species. No intermediate forms approaching either *L. marinum* or *L. salinum* have ever come under our notice, and the small inland *L. rubrum* is still more different.

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

*L. neglectum* (Kindberg), *Arenaria marina* (Wallroth). *Sperg. rubra* var. Bentham. *Sperg. marina* var. Brit. Flor.

Districts 1 2 3 4 5 6 - 8 9 - 11 12

Lat. 51°-56°. Coasts of all Ireland.

Type in Great Britain, British.

Banks and waste places by the sea, and in salt marshes; common. *Fl.* June to August

This is no doubt the plant given in the Flora of Cork, under the name of "*Arenaria rubra*," and as the proper *Lepigonum rubrum* (Fries) proves to be a rare plant in Ireland, there is every probability that nearly all the Irish stations given for it belong really to *L. salinum*. Both forms, "*L. neglectum*" (Kindberg) and *L. medium* (Fries), occur, but the latter is far the scarcer of the two.

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

*Arenaria marginata* (D C.), *Arenaria marina* (Linn.) *Sperg. rubra* var. Bentham. *Sperg. marina* (Camb.) Brit Flor.

Districts 1 2 - 4 5 6 - 8 9 - 11 12

Lat. 51°-56°. Coasts of all Ireland.

Type in Great Britain, British.

Wet and muddy salt marshes; common. *Fl.* June to August.

This is less abundant than *L. salinum*, but occurs in the wettest parts of all our muddy salt marshes, often accompanying *Suaeda maritima* and *Poa* (*Sclerochloa*) *maritima* in places occasionally overflowed by the tide.

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

Districts 1 2 3 4 5 6 7 8 9 10 11 12

Lat. 51°-56°. Throughout Ireland.

Type in Great Britain, British.

Cultivated ground, on a light soil; common. *Fl.* June to September.

Ranges from sea-level to 600 feet in Derry.

*Obs.*—“*Spergula pentandra*,” supposed to have been found in Ireland by Sherard, was, in all probability, a species of *Lepigonum*. Mr. Drummond notices a “*var. pentandria*” as occurring in fields near Cork; this was probably the form *S. vulgaris* (Boënnig).

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

Districts 1 2 - 4 5 - - - - - 12

Lat. 51°-56°. From South to North of Ireland.

Type in Great Britain, British.

Corn fields and waste places on a sandy soil; local. *Fl.* June to August.

Probably overlooked in many places, but according to the information hitherto collected, appears to be wanting in the centre and west of Ireland.

## ORDER XXVIII.—CRASSULACEÆ.

*SEDUM* Linn.1. *S. Rhodiola* (D C.)—*Rose-root*.

Districts 1 2 - - - 6 - 8 9 - 11 12

Lat. 51°-56°. South, West, and North of Ireland.

Type in Great Britain, Highland.

Wet rocks on mountains, and cliffs by the sea; frequent.  
*Fl.* May to August.

1. Brandon mountain and Magillicuddy's Reeks, Kerry, *Mackay Cat. Ir.* On Mangerton; *Wade Rar.* Hungry Hill, near Bantry; *Flor. Cork* and *I. C.*—2. On Galtymore, Tipperary; *Mackay Rar.* On rocks near the lake at Coumshingaun, Waterford; *Miss S. Grubb.*—6. Cliffs of Moher, Clare; *A. G. M.* Great Isle of Arran, in Galway Bay; *Mackay Cat. Ir.*—8. On Shanafolia mountain, &c., Connemara; *C. C. B.*—9. On Ben Bulben; *Flor. Ulst.*—11. On many of the Donegal mountains, and at Innishowen Head, Culdaff; Malin; Hornhead; Glen-Columbkil, &c.; *Flor. Ulst., &c.*—12. South end of Slemish mountains; *Flor. Ulst.* Tor Head and Fair-Head, Antrim; *D. M.* Cave Hill; *Mr. D. Orr.*

One of the most generally distributed of our mountain plants, though it has not been found on the Dublin or Mourne mountains.

Ranges from about sea-level in Donegal (*A. G. M.*) to 2800 feet on Brandon.

2. *S. Telephium* (Linn.)—*Orpine*, or *Live-long*.

Districts (1) (2) (3) (4) - (6) 7 8 9 10 - 12

Lat. 51° or 53°-56°. Native in the Middle and North of Ireland.

Type in Great Britain, English, inclining to British.

Bushy and stony places, banks, &c.; very rare as a native.  
*Fl.* July, August.

1 and 2. Near Carrigaline, naturalized; *Drummond.* On a cliff at Whitepoint, Cove; in a twig-yard by George IV. bridge, Cork; *Flor. Cork.* Near Mallow and Doneraile; *Smith's "Cork,"* (possibly native in some of these stations, but not seen by *I. C.* or *Prof. E. Murphy*).—3 and 4. An

escape from cultivation in Carlow and Wexford; *I. C.*—6. On the walls of an old fort called Cahiremond, near Kilfenora, Clare; *Wade Rar.* At Kilfenora (scarce); *Mr. F. J. Foot.*—7. On Carberry Island in Lough Rea, near Athlone, sparingly; also at Ballinalee, east of Longford (wild); *Mr. F. J. Foot.*—8. At Lemonfield, Connemara; *Ir. Flor.*—9. Near Hazlewood in 1855, but the locality forgotten; *the late Mr. J. Wynne.*—10. On an old ditch in the glebe at Oldcastle, Cavan; *Flor. Hib.* Hedges between Newry and Loughbrickland; *Ir. Flor.*—12. Hedges between Colin Glen and Hanna's Town; Ballyholme; Orlock Point; *Flor. Belf.* Near Coagh; at Ballinahinch; Mallagh Hill; County Down; *Flor. Ulst.* About some old quarries in the parish of Duneane, Antrim; *Mr. C. Moore (S. Telephium Linn.).*

Mr. G. Tate informs us that his Belfast specimens belong to *S. Fabaria* (Koch), and probably this will be found to be the more common form occurring in Ireland.

No doubt introduced in several of the localities given above.

### 3. \* *S. dasyphyllum* (Linn.)—*Thick-leaved Stone-crop.*

Districts 1 2 - - - - -

1 and 2. Walls at Sunday's Well; *Drummond* and *I. C.* (Prof. Murphy believes it to have been planted here.) On limestone rocks and walls at Broomfield, Middleton; *Flor. Cork.* Wall by the Douglas road, Cork; *I. C.* On walls between Middleton and Cloyne; *D. M.* On an old wall near Blarney Castle; *Smith's "Cork"* (1750).

Thoroughly established in the neighbourhood of Cork only.

### 4. *S. anglicum* (Huds.)—*English Stone-crop.*

Districts 1 2 - 4 5 6 7 8 9 - 11 12

Lat. 51°-56°. From South to North of Ireland.

Type in Great Britain, Atlantic, inclining to British.

Banks and rocky places, mostly near the coast; frequent. *Fl.* June to August.

Abundant on most parts of the coast; rare inland, but

found by Mr. Foot in the counties West Meath and Roscommon.

From sea-level in many places, to 1200 feet on Ben Evenagh (*D.M.*).

5. *S. acre* (Linn.)—*Wall Pepper*.

Districts 1 2 3 4 5 6 7 8 9 - 11 12  
Lat. 51°-56°. From South to North of Ireland.

Type in Great Britain, British.

Banks, walls, rocks, and sandhills; frequent. *Fl.* June, July.

This also is more abundant on the coast than inland; being especially plentiful on sandy warrens near the sea.

6. \* *S. reflexum* (Linn.)—*Crooked Yellow Stone-crop*.

*S. rupestre* var. Bentham.

Districts 1 2 3 4 5 6 - - - 10 - 12

On roofs and walls, and occasionally on rocks near houses, but in all cases introduced, and not common. *Fl.* July, August.

1 and 2. On an old castle near Mallow; *Drummond*. By the Blackrock road; *Flor. Cork.* (an escape from cultivation, *Prof. E. Murphy*). On the rock of Cashel, Tipperary; *Mr. T. Chandlee*. Plentiful on thatched roofs at Mallow; *I. C.*—3. Wilton, Kilkenny; *Rev. S. Madden*.—4. In County Wexford; *Mr. J. Morrison*.—5. Walls near Finglas and Chapelizod, Dublin; *Flor. Hib.*—6. On thatched roofs at Kilmallock, County Limerick; *I. C.*—10. Wall near Ballytrain, Monaghan; Benburb, Tyrone; *Flor. Ulst.*—12. Rock at Shane's Castle; tops of houses in Antrim; at Bellahill, near Carrickfergus; *Flor. Ulst.* On the church-yard wall at Muff, and in the Glen of the River Roe, at the place called "O'Cahan's Rocks," plentifully; *D. M.*

Var.  $\beta$  *S. albescens* (Haw.), *S. glaucum* (Sm.)

By a stream at Sunday's Well (formerly), and on a wall at Upper Glasheen, Cork; *Drummond*. Recently destroyed at Glasheen; *I. C.*



7. \**S. rupestre* (Linn.)—*Rock Stonecrop*.

Districts - 2 - - 5 - - - - - 12

Rocks, walls, and gravelly banks; very rare, and doubtless introduced. *Fl.* June, July.

2. Rocks on Little Island, Cork; walls at Queenstown; and on a wall at Youghal (certainly not wild); *I. C.* By the Suir, near Clonmel, and on walls round Clonmel; *Mr. T. Anderson*.—5. On a wall by the path between Dunderum and Rathfarnham, Dublin; *D. M.*—12. Rocks near Shane's Castle; *Flor. Ulst.* On a gravelly field by the side of the Foyle, a little below where the old canal enters the Lough at Ballykelly; *D. M.*

[*S. album* (Linn.), occurs here and there on walls near gardens, or where it has been planted. It grows on cliffs at Summer-hill, Cork; *I. C.*—and on rocks at Rockville, Fermoy; *Mr. T. Chandlee*. It is also plentiful on walls about the town of Antrim, particularly in Lord Massarene's demesne; *D. M.*]

[*S. micranthum* (Bast.) (*S. turgidum* Ram.) is naturalized on slate rocks near Queenstown; at Sunday's well; and at Hawlbowl Island, Cork; *I. C.* It has also been gathered, by *D. M.*, on a wall at Greenmount gate, Glenavy-road, near Antrim. In all cases an escape from cultivation.]

[*Sempervivum tectorum* (Linn.) *Houseleek* is frequently seen on roofs and walls, where it has been planted.]

## COTYLEDON Linn.

1. *C. Umbilicus* (Linn.)—*Wall Pennywort*.

Districts 1 2 3 4 5 6 7 8 9 - 11 12

Lat. 51°–56°. Throughout Ireland.

Type in Great Britain, Atlantic, inclining to English.

Rocks and walls; frequent. *Fl.* June, August.

More plentiful in hilly districts, and near the sea.

From sea-level in Donegal (*A. G. M.*) to 1000 feet on Ben Evenagh; (*D. M.*).

## ORDER GROSSULARIACEÆ.

[The three species of *Ribes*—*R. Grossularia* (Linn.), *R. rubrum* (Linn.), and *R. nigrum* (Linn.), occur occasionally in the

neighbourhood of cottages and gardens, and on old buildings; very rarely in a partially naturalized condition along the banks of streams, but are hardly sufficiently established to be reckoned in the Irish Flora.]

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ORDER XXIX.—SAXIFRAGACEÆ.

*SAXIFRAGA* Linn.

1. *S. umbrosa* (Linn.)—*London Pride*, *St. Patrick's Cabbage*.  
*S. Geum* var. Bentham.

Districts 1 2 - - - - 8 9 - 11 -

Lat. 51°–56°. South and West of Ireland.

Hibernian type. Not native in Great Britain.

Mountains and woods; local. *Fl.* June, July.

1. On nearly all the mountains of Kerry; plentiful in the woods at Killarney; *D. M.*, &c. At the Gap of Dunloe (*var. serratifolia*); *Flor. Hib.* Common on all the rocks in the western parts of Cork; *Smith's "Cork."* Plentiful in the woods at Glengariff, near Bantry; *Flor. Hib.* Ballydavelin hill, Carbery; rocks by the Lee, close above Inniscarra-bridge; *Drummond.*—2. On the Comeragh and Clogheen mountains, Waterford; *I. C.* On the top of the high mountains of Knockmeledown; *Smith's "Waterford" (var. serratifolia)*; *D. M.*—8. On nearly all the mountains of Connemara, from about sea-level upwards; Milrea and Croagh Patrick; *Flor. Hib.* On Nephin (from 600 feet to the summit); *Flor. Ulst.* On the shores of Loughs Cullin and Conn, about Pontoon; *A. G. M.*—9. On the hills north-east of Foxford; *A. G. M.*—11. On Muckish mountain, Donegal; *Flor. Hib.* On Errigal, and at Knockglass, Malin, close by the sea, at not more than 100 feet; *Flor. Ulst.*

The variety *punctata* (Haw.) is the more abundant, if not the only form occurring in Connemara, Mayo, and Donegal; *C. C. B.*

Ranges from near sea-level in Kerry and Connemara to 2650 feet on Nephin, and 3404 feet on Curran Tual.

This plant was first published as growing wild on Man-

gerton, in Kerry, by Dr. T. Molyneux (Phil. Trans. No. 227, 1697), and was afterwards found in Mayo, Galway, and Kerry, by Lhwyd (1699).

2. ? *S. hirsuta* (Linn.)—*Hairy Saxifrage*.

*S. Geum* var. Brit. Flor. and Bentham.

District 1 - - - - -  
 Lat. 51°-53°. South-west of Ireland—Kerry and Cork only.  
 Hibernian type. Not found in Great Britain.

Rocky places on mountains; very local and rare. *Fl.* June.

1. On rocks at the Gap of Dunloe, near Killarney; *Flor. Hib.* On Brandon, plentifully; *D. M.* Connor hill, Kerry; and Hungry Hill, Cork; *Bab. Man.* On the Guogaunbarragh mountain; *Flor. Cork.*

This occurs only in places where *S. umbrosa* and *S. Geum* grow together, and is, by many botanists, considered a hybrid between the two species. In the latest edition of the "British Flora" doubt is expressed as to whether *S. elegans* (Mackay) and *S. hirsuta* (Linn.) ought to be considered as varieties of *S. Geum*, or as hybrids, or intermediates, uniting *S. Geum* and *S. umbrosa* as one species.

Found in Kerry, by Dr. Mackay, in 1804.

3. *S. Geum* (Linn.) *Kidney-leaved Saxifrage*.

District 1 - - - - -  
 Lat. 51°-53° South-west of Ireland—Kerry and Cork only.  
 Hibernian type. Not found in Great Britain.

Rocky places on mountains; very local. *Fl.* June.

1. First found in Kerry by Dr. Mackay, in 1804. On Mangerton, and other mountains in Kerry; *Flor. Hib.* On the Blasquet Islands; *Mr. W. Andrews.* Abundant on Brandon mountain, and about Killarney, &c.; *D. M.* Priest's-leap, and other mountains near Bantry; Connor hill, near Dingle; *Flor. Hib.* Mountains between Guogaunbarragh and Bantry; *Drummond.* Hungry hill; *Flor. Cork.* Professor C. C. Babington believes that he found one rather large patch of *S. Geum* on a small rock overhanging the rill, by the second brook on the way from Maam to the

Killeries. This is the only record of the occurrence of *S. Geum* in Connemara, and no specimens were preserved; and as Professor Babington himself thinks the plant may have belonged to some variety of *S. umbrosa*, it seems best to consider the locality uncertain for the present.

*Var. β elegans* (*S. elegans* Mackay).

Top of Turk Mountain, Killarney; *Flor. Hib.* Connor hill, Kerry; *C. C. B.*

*S. elegans* (Mackay) seems about equally related to *S. umbrosa* and to *S. Geum*; but the characters and colour of the flower are those of the latter. It is well known that *S. Geum* varies extremely in size and degree of hairiness, as well as in the dentation of the margins of its leaves.

Mr. James Drummond, a good practical botanist, has long ago expressed an opinion that *S. Geum*, *S. hirsuta*, and *S. umbrosa*, are only varieties of the same species; and he particularly mentions that he has seen a plant of *S. Geum* on the top of a rock, and five or six varieties, including *S. hirsuta* and *S. umbrosa* springing from seed at the foot of it.

*Obs.*—*S. Andrewsii* (Harvey) thought to have been gathered at the head of Glen Caragh, Kerry, is now supposed to be a garden hybrid (See British Flora, Ed. 8); but this question cannot be considered solved until something more is known of the parent species. If we may judge from cultivated specimens, *S. Andrewsii* appears closely allied to *S. Guthriana*, which is often cultivated in gardens.

#### 4. *S. stellaris* (Linn.)—*Starry Saxifrage*.

Districts 1 2 - 4 5 - - 8 - - 11 12  
 Lat. 51°-56°. Mountains, from South to North of Ireland.  
 Type in Great Britain, Highland.

Wet rocks, and marshy places by mountain rills; frequent.  
*Fl.* July, August.

On Carntual and Brandon mountains; *D. M.* On Mangerton, and a large form on Hungary Hill; *I. C.*—2. On the Waterford and Tipperary mountains; *I. C.*—4 and 5. On the Wicklow and Dublin mountains; *Flor. Hib.* Plentiful in Kelly's Glen; *Mr. D. Orr.*—8. On Shanafolia Mountain,

Connemara; *C. C. B.* Plentiful on the Benaboola range; *D. M.* On Corslieve, in Erris; *Mr. T. Ball.*—11. On Muckish Mountain, Donegal; *Flor. Ulst.*—12. On the Slieve Donard and others of the Mourne Mountains; *Flor. Ulst.* On Sawel, Dart, and Clontygeragh Mountains, Derry (not found on the basaltic range); *D. M.*

From 600 to 2000 feet in Derry (*D. M.*) 500 to 2100 feet on Slieve Donard (*Flor. Ulst.*).

This, with *Salix herbacea*, is one of the most widely distributed mountain plants of Ireland. It is singular that it has not yet been found on Ben Bulben.

#### 5. *S. Hirculus* (Linn.)—*Yellow Marsh Saxifrage.*

Districts - - - - - 7 - - - - 12

Lat. 52°-55°. Centre and North-east of Ireland.

Type in Great Britain, Intermediate, inclining to Scottish.

Wet quaking bogs; very rare. *Fl.* August.

7. In an extensive marsh, three miles from Cloughjordan, Tipperary; *Flor. Hib.* Bog of Lisclogher, near Castletown Delvin, Westmeath! *Mr. W. A. Reynell.* On the bog of Allen, near Portarlinton, *Mr. R. Tucker.*—12. In considerable abundance in an elevated moor near Dunloy, parish of Rasharkin, Antrim, a little to the west of some low rocks called "Cohinnen" and "Lough Rocks;" *D. M.*

#### 6. *S. aizoides* (Linn.)—*Yellow Mountain Saxifrage.*

Districts 1 - - - - - 9 - - - - 12

Lat. 51°-56°. South, West, and North of Ireland.

Type in Great Britain, Highland.

Cliffs and marshy places on mountains; rare. *Fl.* July, August.

1. Connor Cliffs, near Dingle; *Flor. Hib.*—9. Ben Bulben, from near the base to the top; *Flor. Ulst.* On Glenade, Legale, and Ben Whisken, Sligo; *Admiral Jones.* In County Leitrim; *Flor. Ulst.*—12. By the cataract at Donard Lodge; *Flor. Ulst.* Plentifully at Murlough Bay, near Fair Head, Antrim; *D. M.* and *Flor. Ulst.*

†

7. *S. hypnoides* (Linn.)—*Mossy Saxifrage*.<sup>1</sup>

Districts 1 2 - - - 6 7 - 9 10 - 12  
 Lat. 51°-56°. From South to North of Ireland.

Type in Britain, Scottish, inclining to British.

Rocky places, mostly on mountains; frequent, but local.  
*Fl.* May to August.

1. Killarney; *D. M.*—2. On Galtymore, Tipperary; *Mr. T. Anderson*. On the Comeragh Mountains, Waterford; *Mr. J. Grubb*.—6. At Castle Taylor, and at Garryland, Galway; *A. G. M.* Throughout Burren; *Mr. F. J. Foot*. (A curious form, with the barren shoots terminating in dense rosettes, grows on the shore near Black Head, and in Great Arran Island, and comes very near to *S. hirta*; *A. G. M.* Knockmai Mountain, near Tuam; *Wade Rar.* Near Castle Hacket, Galway; *Ir. Flor.*—7. Rock at Reynella, West Meath; *Miss E. Reynell*.—9. On Ben Braddagh, Ben Whisken, and Glenade, Sligo; *Admiral Jones*. Kesh Corran; *Mr. F. J. Foot*. Abundant on rocks in Sligo; *Flor. Ulst.*—10. Hill of Knocknenny, Fermanagh; *Wade Rar.* Limestone rocks, near Swanlinbar, Cavan; *Mackay Rar.*—12. In many parts of Antrim and Derry; *D. M.* and *Flor. Ulst.*

Ranges from near sea-level in Clare, to upwards of 3000 feet.

*S. hirta* (Sm.).

Districts 1 2 - - - - - - - - - - - - - - - - - - - - -

1. On Brandon Mountain, Kerry; *Bob. Man.* On Curan Tuol (Carntual); *Flor. Hib.*—2. Near the summit of Galtymore, Tipperary; *Flor. Hib.* The plant from "Hag's Glen" is *S. hypnoides* var. *platypetala*; *C. C. B.*

*S. affinis* Don.

District 1 - - - - - - - - - - - - - - - - - - - - -

Kerry only.—On a rock at the top of Brandon Mountain, Kerry; *Mackay, Cat. Ir.*

*Obs.*—*S. cæspitosa* (Flor. Hib.), a plant gathered on a rock near the summit of Brandon Mountain, and considered by Dr. Mackay to be *S. cæspitosa* (Linn.), we have reason to believe, is nothing more than one of the many forms of *S. hypnoides*.

"*S. pedatifida*," supposed to have been found in Achill, by Mr. J. Wynne, was probably also a form of *S. hypnoides*.

† see p 17. Supp.

8. *S. tridactylites* (Linn.)—*Rue-leaved Saxifrage*.

Districts 1 2 3 4 5 6 7 8 9 - 11 12

Lat. 51°–56°. Throughout Ireland.

Type in Great Britain, British, inclining to English.

On calcareous and basaltic rocks, and sandhills near the sea, also on walls and roofs; frequent, but local. *Fl.* April to June.

Reported from most counties, but is far from common. Abundant on the limestone districts of Burren and west Galway; also plentiful on the sandy warrens of the north of Derry (*D. M.*), and on the sandhills at Ardara, Donegal; *A. G. M.* Very common near Cork; *I. C.*

9. *S. granulata* (Linn.)—*White Meadow Saxifrage*.

Districts - - - - 5 - - - - - 12

Lat. 53°–55°. East and North of Ireland.

Type in Great Britain, British, inclining to intermediate.

Banks, rocky pastures, and in copses; very rare. *Fl.* May, June.

5. On ditch-banks between Baldoyle and Portmarnock; *Flor. Hib.* Near Kilbarrock Church; *Ir. Flor.*—12. About a mile from the village of Carnlough, towards Glenarm, Antrim; also in copses at Springhill, Moneymore, Derry; *D. M.*

10. *S. nivalis* (Linn.)—*Alpine Clustered Saxifrage*.

District - - - - - 9 - - - -

Lat. 54°–55°. North-west of Ireland—Sligo only.

Type in Great Britain, Highland.

Rocky mountain cliffs; very rare. *Fl.* July.

9. On Ben Bulbin, Sligo; *Mr. John Wynne*.

About 1800 feet on Ben Bulbin.

11. *S. oppositifolia* (Linn.)—*Purple Mountain Saxifrage*.

Districts - - - - - 8 9 - 11 12

Lat. 53°–56°. North-west, and North of Ireland.

Type in Great Britain, Highland.

Rocky places on mountains; rare. *Fl.* April, May.

8. Mountains in Joyce country, near Lough Corrib; *Flor. Hib.* On Ben Lettery, Connemara! *I. C.* On Maam Turk, Connemara; *Mackay, App. to Frazer*.—9. On the calcareous mountains of Leitrim and Sligo; *Prof. E. Murphy.* Glenade, Leitrim; *Admiral Jones.* Ben Bulben, from 700 feet upwards; *Flor. Ulst.*—11. On Bulben Mountain, Innisowen; *Wade Rar.* Innishowen Mountains; *Flor. Hib.* and *Flor. Ulst.*—12. Sparingly on Ben Evenagh, Derry, at 1100 feet.—*D. M.*

### CHRYSOSPENIUM Linn.

#### 1. *C. alternifolium* (Linn.)—*Alternate-leaved Golden-Saxifrage.*

Districts - - - - - 10 - 12

Lat. 54°–55°. North of Ireland—Tyrene and Antrim.

Type in Great Britain, British, inclining to Intermediate.

Boggy woods and damp shady places; very rare. *Fl.* April to June.

10. Ballylast, Tyrene; *Prof. E. Murphy.*—12. Sparingly, and in one spot only, by the river in Glendoon, near Cushendall, Antrim; and naturalized on a ditch-bank near the Botanic Garden, Belfast; *D. M.* Colin Glen, near Belfast (Mr. Templeton); *Flor. Ulst.* (a doubtful native here; *D. M.*) Ballymaghin Glen; *Flor. Belf.*

#### 2. *C. oppositifolium* (Linn.)—*Opposite-leaved Golden-Saxifrage.*

Districts 1 2 3 4 5 6 7 8 9 10 11 12

Lat. 51°–56°. Throughout Ireland.

Type in Great Britain, British, inclining to Highland.

Damp shady places; frequent. *Fl.* April to May.

Rather scarce on limestone. Ranges from sea-level to 2000 feet in Kerry.



## ORDER XXX.—UMBELLIFERÆ.

*HYDROCOTYLE* Linn.1. *H. vulgaris* (Linn.)—*Marsh Penny-wort*.

Districts 1 2 3 4 5 6 7 8 9 10 11 12

Lat. 50°–56°. Throughout Ireland.

Type in Great Britain, British.

Marshy and boggy places; common. *Fl.* May to July.*SANICULA* Linn.1. *S. europæa* (Linn.)—*Sanicle*.

Districts 1 2 3 4 5 6 7 8 9 10 11 12

Lat. 51°–56°. Throughout Ireland.

Type in Great Britain, British.

Woods, shady places, and among rocks; frequent. *Fl.* June, July.*ERYNGIUM* Linn.1. *E. maritimum* (Linn.)—*Sea Holly*.

Districts 1 2 - 4 5 6 - 8 - - 11 12

Lat. 51°–56°. Coasts of nearly all Ireland.

Type in Great Britain, British.

Sandy sea shores; frequent, but local. *Fl.* July, August.

[*E. campestre* (Linn.) is recorded by Mackay as having been found by Drummond in a sandy field near Lismore, Waterford. We have not been able to ascertain whether the plant still exists in this locality, where, in all probability, it was accidentally introduced.]

*CICUTA* Linn.*C. virosa* (Linn.)—*Water Hemlock*.

Districts - - - - 5 - 7 - 9 10 - 12

Lat. 53°–56°. Middle and North of Ireland.

Type in Great Britain, English?

In ditches and by the sides of rivers and lakes; very local. *Fl.* July, August.

5. Ardee Bog, along the river-side at Mansfieldtown and Black mills, Louth; *Ir. Flor.*—7. Bog of Linn, near Mullingar; *Ir. Flor.*—9. On a lake in the county of Leitrim;

*Admiral Jones*. Gortinty Lough, near Drumsna; *Mr. F. J. Foot*.—10. Banks of Lough Erne! near the lake at Farnham, &c.; *Flor. Hib.* On a small island near Maghery, and on the shores of Lough Neagh, in Armagh; *Rev. G. Robinson*.—12. Laganerry mill-dam, on the road to Auchie, county Down; in the Lagan, above Lisburn; drain at Portmore Park, near entrance to Lough Neagh; near foot of Blackwater; *Flor. Ulst.* Abundant near Lough Neagh and Lough Beg, and by the side of the Bann, from Lough Beg to near Coleraine, occasionally; *D. M.* Rathlin Island (Miss Gage); *I. C.*

#### APIUM Linn.

##### 1. *A. graveolens* (Linn.)—*Wild Celery*.

Districts 1 2 3 4 5 - - 8 - - - -

Lat. 51°–56°. From South to North of Ireland.

Type in Great Britain, English.

Watery places, mostly near the sea; common in brackish marsh ditches. *Fl.* June to August.

[*Petroselinum sativum* (Linn.), *Garden Parsley*, is well established on old ruins, also on rocks in many parts of Cork, and on the walls of St. Mary's Church, Limerick; *I. C.* On rocks near Cork; *Flor. Cork.* On Ballyhooly Castle, Fermoy; *Mr. T. Chandlee*. On the walls of Derry; *D. M.* At Movice, Donegal; *Mr. Charles Moore*: but is never found far from houses or ruins.]

#### HELOSCIADIUM Koch.

##### 1. *H. nodiflorum* (Koch.)—*Procumbent Water-Parnsnep*.

*Sium nodiflorum* (Linn.) *Flor. Hib.* ' "

Districts 1 2 3 4 5 6 7 8 9 10 11 12

Lat. 51°–56°. Throughout Ireland.

Type in Great Britain, English.

Banks of ditches and streams; common. *Fl.* July, August.

*Var β repens* (*H. repens* Koch).

1 and 2. Near Cork; *Flor. Cork.* In both divisions of the county; *I. C.*—2. In Waterford; *Miss S. Grubb*.—6. In a marsh by the Fergus, a little above the bridge at Ennis,

Clare; *Flor. Hib.* About Tuam, and by the Suck at Ballinasloe; *Ir. Flor.*—12. Marshy places at Kilkeel, Down; *Ir. Flor.* Near Kilkeel, and river-side at Kirkhall, Down; *Flor. Ulst.* Apparently rather rare, though no doubt often overlooked.

2. *H. inundatum* (Koch)—*Least Marsh-wort.*

*Sium inundatum* (Wigg.) *Flor. Hib.*

Districts 1 2 3 4 5 6 - 8 9 10 11 12

Lat. 51°–56°. Throughout Ireland.

Type in Great Britain, British.

Shallow ponds, ditches, bog-pits; frequent. *Fl.* June, July.

A large form with the floating leaves well developed occurs in drains near Portmore, Antrim; *D. M.* (See Syme's edition of "English Botany.")

*ÆGOPODIUM* Linn.

1. † *Æ. Podagraria* (Linn.)—*Gout-weed.*

Districts 1 2 3 4 5 - 7 - - 10 11 12

Lat. 51°–56°. From South to North of Ireland.

Type in Great Britain, British, inclining to English.

Woods, hedges, orchards, and waste places; usually near houses; frequent in the north; rare in the south of Ireland. *Fl.* June, July.

1 and 2. Rare, and naturalized near Cork; *Flor. Cork.*—2. Gardens at Kilworth and Fermoy; rare and introduced; *Mr. T. Chandlee.*—3. Kilmanagh, Kilkenny; and Attanna, Queen's County; *Rev. S. Madden.* Rather rare in Wicklow, Kildare, and Dublin, and the midland counties. Rare also, or wanting in many parts of the west of Ireland; frequent in Ulster.

Probably introduced in all its localities, though it is thoroughly established, and has spread to some wild-looking places.

*CARUM* Linn.

1. *C. verticillatum* (Koch)—*Whorled Caraway.*

District 1 - - - - - - - - - - 12

Lat. 51°–56°. South-west and North-east of Ireland.

Type in Great Britain, Atlantic.

Moist meadows, and salt marshes; very local. *Fl.* July, August.

1. Marsh near Lane Bridge, Killarney, and other places in Kerry; *Flor. Hib.* On the banks of the Maine, opposite Miltown, Kerry; *Admiral Jones.* Gap of Dunloe; *Mr. N. B. Ward*); *I. C.* Bantry Bay; *Flor. Cork.* Road-sides, Glencar; and between Rossbeigh and Killorglin; *I. C.*—12. Marshes near Cranmore; and at the Bog Meadows, Belfast; *Flor. Ulst.* In a moist meadow below Orange Grove, near Belfast; *Ir. Flor.* Pastures on borders of a lake at Ballyalloy House; *Flor. Belf.* By the Lagan, near Belfast; *D. M.* Abundant by the side of the Bann, above and below Coleraine; *D. M.*

[*Carum Carui* (Linn.) *Caraway* occurs occasionally in waste places in the vicinity of houses and gardens, but only in places where the seeds have been accidentally introduced.]

#### BUNIUM Linn.

##### 1. *B. flexuosum* (With.)—*Pig-nut.*

*Conopodium flexuosum*, *Flor. Hib.*

Districts 1 2 3 4 5 6 - 8 9 10 11 12

Lat. 51°–56°. Throughout Ireland.

Type in Great Britain, British.

Woods and dry pastures; frequent. *Fl.* May, June.

#### PIMPINELLA Linn.

##### 1. *P. magna* (Linn.)—*Greater Burnet-Saxifrage.*

Districts 1 2 - - - 6 - 8 9 - - -

Lat. 51°–54°. South and West of Ireland.

Type in Great Britain, English, inclining to Germanic.

Bushy banks, on limestone; local, and rather rare; *Fl.* July, August.

1. Mucruss Woods, near the Abbey; *Flor. Hib.* At Killarney; *C. C. B.*—2. About Youghal; *Flor. Cork.* In great plenty about Cork; *Smith's "Cork."* Fryar's Walk, Cork; *Wade Rar.* By the Funcheon, at Ballinadrohid, near Fermoy; *Mr. T. Chandlee.*—6. Plassy, near Limerick; *I. C.* Ballingarry, Limerick; *Mr. Gubbins.* Rostrevor, Clare;

*Wade Rar.* On Scattery Island, opposite Kilrush, Clare; *D. M.* Isles of Arran, in Galway Bay; *Prof. D. Oliver.*—8. Dangan, beyond Galway; *Wade Rar.* About Oughterard; *D. M.*—9. Plentiful at Cong, Mayo; *Wade Gallovid.* Banks of the Moy, above Foxford, Mayo; *A. G. M.*

2. **P. Saxifraga** (Linn.)—*Common Burnet Saxifrage.*

Districts 1 2 3 4 5 6 7 8 - - 11 12

Lat. 51°–56°. Throughout Ireland.

Type in Great Britain, British.

Dry pastures; common in the limestone districts. *Fl.* July to September.

*SIUM* Linn.

1. **S. latifolium** (Linn.)—*Broad-leaved Water-Parsnep.*

Districts - - - - .5 6 7 - - 10 - 12

Lat. 52°–56°. Middle and North of Ireland.

Type in Great Britain, English, inclining to Germanic.

River-sides, ditches, and watery places; local and rare. *Fl.* July, August,

5. Bog of Curragher, County Dublin; and sparingly at Howth; *Wade Rar.* Garristown bog; boggy places near Slane, Meath; *Ir. Flor.*—6. Banks of the Shannon, near Limerick; and ditches near Corrofin, Clare; *Mackay Rar.* Near the bridge at Portumna, Galway, plentiful; *D. M.* Dromore Lake, near Corrofin; *Mr. F. J. Foot.* Banks of the Fergus, above the bridge at Ennis; *Flor. Hib.* Near Tuam, and in ditches between Milough and Ballinasloe; *Wade Rar.*—7. Near Mullingar; *Mr. F. J. Foot.*—10. Plentiful about Lough Erne; *Flor. Hib.*—12. By the river from Portmore to Lough Neagh; Ballygowan Lough; ditches, &c., at west end of Glenarm Park; marsh at Culmore Point, near Derry; *Flor. Ulst.* Lough Henny, Saintfield; *Flor. Belf.* Between the Bann and Portstewart, and near Lough Neagh in Derry; marsh at Selchin, by Lough Neagh, in Antrim; *D. M.* Mr. Carroll finds only *S. angustifolium* near Cork.

2. *S. angustifolium* (Linn.)—*Narrow-leaved Water-Parsnep.*

Districts 1 2 - 4 5 ✓ 6 7 - - - 11 12  
 Lat. 51°-56°. From South to North of Ireland.

Type in Great Britain, English, inclining to British.

Ditches and marshy places; not common. *Fl.* July, August.

1. Killarney; *C. C. B.*—2. North Cork, and Waterford; *I. C.*—4. Ditches on the Murrough of Wicklow; *D. M.*—5. Raheny; Curragha Bog, near Finglass; *Ir. Flor.* In Kildare; *Mr. J. Douglas.*—6. Banks of the Shannon, near Limerick; *Mackay Cat. Ir.*—7. In West Meath, plentiful; *D. M.*—11. Mount Charles, and town of Donegal; *Flor. Ulst.*—12. Moneymore and Ballyronan; river at Ballinahinch; Ballyknockan, Down; road-side between Downpatrick and the Sluice; *Flor. Ulst.* Abundant in the ditches near Lough Neagh in Antrim and Derry; *D. M.*

*CENANTHE* Linn.1. *Ce. fistulosa* (Linn.)—*Common Water-Dropwort.*

Districts 1 2 - 4 5 6 - - 9 - 11 12  
 Lat 51°-56°. Throughout nearly all Ireland.

Type in Great Britain, English, inclining to British.

Ditches and marshy meadows; frequent. *Fl.* July, Aug.

2. *Ce. Lachenalii* (Gmel.)—*Sea-side Dropwort.*

*Ce. pimpinelloides*, Flor. Hib. *Ce. pimpinelloides* (Linn.), var. Bentham.

Districts 1 2 - 4 5 - - 8 - - 11 12  
 Lat. 51°-56°. Coast of nearly all Ireland.

Type in Great Britain, English, inclining to British.

Salt-marshes; frequent. *Fl.* August, September.

1. Marsh near Castletown, Berehaven; *Flor. Cork.*—  
 2. In a salt-marsh near Youghal bridge; *Flor. Cork.*  
 Common in Cork; *I. C.* In county Waterford; *I. C.*—  
 4. In Wexford; *I. C.* Wicklow; *D. M.*—5. Portmarnock!  
 &c., near Dublin; *Flor. Hib.*—8. Near Galway; *the late*  
*Professor Graham.*—11. Near Killybegs, Donegal; *Admiral*  
*Jones.*—12. Banks of the Lagan, near Belfast; *Flor. Hib*

People's Park; Bangor; Kinnegar; Groomsport; *Flor. Belf.* Mouth of the Roe; and of the Bann, near Coleraine, in Derry; *D. M.*

3. **Æ. crocata** (Linn.)—*Hemlock Water-Dropwort.*

Districts 1 2 3 4 5 - - 8 - 10 11 12  
 Lat. 51°-56°. From South to North of Ireland.

Type in Great Britain, British, inclining to English.

Ditches, river banks, and marshy places; frequent. *Fl.* July.

Far less frequent in the west, but has been found at Belmullet, Mayo, by Professor C. C. Babington.

4. **Æ. Phellandrium** (Lam.)—*Fine-leaved Water Dropwort.*

Districts - 2 - 4 5 6 - 8 9 10 11 12

Lat. 52°-56°. Throughout Ireland, except the extreme South.

Type in Great Britain, English, inclining to Germanic.

Rivers, ditches, ponds, &c.; frequent, except in the south. *Fl.* July to September.

Very rare in the south, but occurs in pools at Gerah, and in Ballyoran Bog, near Fermoy; *Mr. T. Chandlee.* Also in ditches by the railway between Mallow and Buttevant; *I. C.*

*Obs.*—*Ænanthe fluviatilis* (Colem.) grows in the canal between Monasterevan and Portarlinton, and in the same canal in Kildare, but we do not consider it anything more than a state of *Æ. Phellandrium*, altered by growing in deep water.

**ÆTHUSA** Linn.

1. **Æ. Cynapium** (Linn.)—*Foot's Parsley.*

Districts 1 2 3 4 5 6 - 8 9 10 - 12

Lat. 51°-56°. Throughout Ireland.

Type in Great Britain, British, inclining to English.

Cultivated and waste ground, especially neglected gardens, and usually near houses; not uncommon. *Fl.* July, August.

*FœNICULUM* Hoffm.1. † *F. officinale* (All.)—*Fennel*.*Fœniculum vulgare* (Gaert.) Flor. Hib. and Brit. Flor.

District 1 2 - 4 ✓ (5) - - (8) - - - (12)

Lat. 51°–53°. Perhaps native on the South Coast of Ireland.

Type in Great Britain, English.

Dry banks and waste places, near houses; mostly towards the coast; rare, and certainly introduced in most, if not all, its localities. *Fl.* July, August.

1 and 2. Rather common about Cork; *Flor. Cork*. Common about the harbour of Cork, and apparently indigenous; *I. C.* Naturalized at Glanworth Castle, Fermoy; *Mr. T. Chandlee*. Dunmore, on the Coast of Waterford and near Clonmel; *Miss S. Grubb*.—4. On the coast at Curacloa, Wexford; *Mr. J. Morrison*. Abundant on banks by the road-side between Bray and the Dargle.—(5.) Banks near Old Church, Killiney; Old Abbey at Howth; near Rathfarnham-bridge; Chapelizod; and Clonskeagh; *Wade Dubl.* Near gardens along Knockmaroon hill; *D.M.*—(8.) Near Galway (escaped from cultivation); *Prof. Melville*.—(12.) Curran of Larne, Antrim; introduced; *D. M.*

The most wild-looking localities are on the south coast, whence proceeding northwards the habitats become more and more suspicious. The plant is not included by Dr. Dickie in his "Flora of Ulster."

*HALOSCIAS* Fries.1. *H. scoticum* (Fries.)—*Scottish Lovage*.*Ligusticum scoticum* (Linn.) Flor. Hib. and Brit. Flor.

Districts - - - - - 11 12

Lat. 55°–56°. North coast of Ireland.

Type in Great Britain, Scottish.

Rocks by the sea; rare. *Fl.* July, August.

11. Among rocks at Norvanny Point, parish of Clonmany, Donegal; *Mr. C. Moore*. In great profusion at Innishowen Head, Culdaff and Giveny, Donegal; *Flor. Ulst.*—12. Garron Head, near Cushendall, Antrim; sea-shore between



Portstewart and Portrush, Derry; *D. M.* Hedge-sides, old Larne-road, Carrickfergus; *Flor. Belf.* (surely a mistake).

Recorded (but with doubt) as having been observed in the great Island of Arran in Galway Bay; but we fear that *Smyrniium Olusatrum* was the plant gathered.

*SILAU* S. Besser.

1. *S. pratensis* (Besser.)—*Meadow Pepper-Saxifrage.*

District - - - - - 12

Lat. 54°-55°. North of Ireland—Derry and Antrim.

Type in Great Britain, English.

Pastures and meadows; very rare. *Fl.* June, August.

12. On a gravelly bank by the side of the Foyle, above Londonderry, and near the extremity of the county; *D. M.* ? Near Ballyrobin, Antrim (Mr. D. Orr); *Flor. Ulst.* There can be little doubt that the plant found on the shore near Belfast, and supposed by Mr. Templeton to have been *S. pratensis* was in reality *Cenanthe Lachenalii*.

*CRITHMUM* Linn.

1. *C. maritimum* (Linn.)—*Samphire.*

Districts 1 2 - 4 5 ✓ 6 - 8 9 - 11 12

Lat. 51°-56°. Round all the coast of Ireland.

Type in Great Britain, Atlantic.

On rocks and cliffs by the sea; frequent. *Fl.* August.

*ANGELICA* Linn.

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

Districts 1 2 3 4 5 6 7 8 9 10 11 12

Lat. 51°-56°. Throughout Ireland.

Type in Great Britain, British.

Damp woods and marshy places; common. *Fl.* July, August.

[*Peucedanum Ostruthium* (Koch.) Old hedges on the townland of Ballydolaghan, county of Down; to all appearance perfectly wild (Mr. Campbell); *Flor. Hib.* Near Lismore and Tallow, on the hill of Slatwood; Smith's "Waterford" (1774); and found also on a ditch-bank in the parish of

Ballintoy, Antrim; but was no doubt introduced in all these localities.]

*PASTINACA*.

1. † *P. sativa* (Linn.)—*Wild Parsnep*.

Districts — 2 — 4 5 6 — — — — 12  
 Lat. 51°–56°. From South to North of Ireland.

Type in Great Britain, English.

Banks, borders of fields, quarries, and cultivated land, on a light soil; rare. *Fl.* June, July.

2. Strand of Little Island, Cork; *Drummond* and *I. C.*; and near Whitepoint, Cove; *Flor. Cork*.—2. Plentiful in fields by the Cork and Macroom road, between the Ovens and Kilcrea; *I. C.* Field at Ballymacarbury; and at Cheekpoint, Waterford; (Miss S. Grubb) *I. C.*—4. Cultivated fields on the Murrough of Wicklow; *D. M.*—5. Near Ballytore (an escape from cultivation); *Mr. T. Chandlee* and *I. C.* Finglas quarries; lands of Ballygall; *Ir. Flor.* Fields near Finglas, and lands of Beldrummond, near the Man-of-War Inn; *Flor. Hib.* Old and new quarries above Sutton and Howth; *the late Mr. J. White*.—6. In cultivated fields about Garryland, Galway (probably the remains of former crops); *A. G. M.*—12. Foot of Crumlin River; *Flor. Ulst.* Abundant in sandy cultivated fields at Magilligan, Derry; *D. M.*

Admitted as indigenous in the Flora of Cork, and Mr. Carroll also considers that it seems wild, and the station at Finglass quarries appears “wild” enough at present; but considering that the plant never occurs far from houses and cultivation, it seems safer to consider it as probably naturalized. When once introduced as a field crop, it seems to take in many places a permanent hold of the ground if the seed is allowed to ripen.

*HERACLEUM* Linn.

1. *H. Sphondylium* (Linn.)—*Cow-Parsnep*.

Districts 1 2 3 4 5 6 7 8 9 10 11 12  
 Lat. 51°–56°. Throughout Ireland.

Type in Great Britain, British.

Meadows, hedges, waste places, &c.; common. *Fl.* July.

## DAUCUS Linn.

1. **D. Carota** (Linn.)—*Wild Carrot*.

Districts 1 2 3 4 5 6 - 8 9 - 11 12

Lat. 51°-56°. Throughout Ireland.

Type in Great Britain, British.

Pastures and banks, especially near the coast; common.  
*Fl.* June to August.*Var. β maritimus* (*D. maritimus* (With.) *D. gummifer* Bab. Man.)On many parts of the coast, but very variable in its appearance and character, and we think certainly not distinguishable as a species from *D. Carota*.

## TORILIS Adans.

1. **T. Anthriscus** (Gaert.)—*Upright Hedge-Parsley*.*Caucalis Anthriscus* (Huds.) Benth.

Districts 1 2 3 4 5 6 7 8 9 10 11 12

Lat. 51°-56°. Throughout Ireland.

Type in Great Britain, British, inclining to English.

Hedges, waysides, &c.; common. *Fl.* July, August.2. **T. nodosa** (Gaert.)—*Knotted Hedge-Parsley*.*Caucalis nodosa* (Huds.) Benth.

Districts 1 2 - 4 5 6 7 - - - - 12

Lat. 51°-56°. From South to North of Ireland.

Type in Great Britain, English.

Banks and waste places, at the foot of walls, &c.; rare.  
*Fl.* May to August.1 and 2. Rather rare near Cork; *Flor. Cork.*; but occurs in both divisions of the county; *I. C.* In Waterford; *I. C.*—4. Enniscorthy, Wexford; *I. C.* Murrrough of Wicklow; *D. M.*—5. About Dublin in several localities; *D. M.*—6. On a bridge near Headford, Galway; *Prof. Melville.*—7. In several of the midland counties; *Mr. F. J. Foot*—12. Very rare in Ulster; Ballyronan; Curran of Larne; Ballycastle; *Flor. Ulst.* Carnlough Bay, Antrim; *D. M.*

Very rare or wanting in the west of Ireland, and perhaps introduced in the locality noticed by Prof. Melville.

*Obs.*—*T. infesta* (Spr.) is doubtfully included in the Flora of Cork, but has not been recently found. Mr. S. A. Stewart having kindly sent a specimen of the supposed *T. infesta* from "the Trench, Comber," near Belfast, the plant has proved to be a luxuriant form of *Anthriscus vulgaris*.

*SCANDIX* Linn.

1. *S. Pecten-Veneris* (Linn.)—*Shepherd's Needle*.

Districts 1 2 3 4 5 6 - 8 - 10 11 12  
 Lat. 51°-56°. Throughout nearly all Ireland.

Type in Great Britain, British, inclining to English.

Cultivated fields; frequent. *Fl.* June to August.

Not uncommon in most parts of Ireland, but like many others of the weeds of cultivation, much less abundant in the west.

Ranges from sea-level to 600 feet in Derry.

*ANTHRISCUS* Hoffm.

1. *A. sylvestris* (Hoffm.)—*Cow Parsley*.

*Chærophyllum sylvestre* (Linn.) Benth.

Districts 1 2 3 4 5 6 7 8 9 10 11 12  
 Lat. 51°-56°. Throughout Ireland.

Type in Great Britain, British.

Woods and hedges; common. *Fl.* May.

2. *A. vulgaris* (Pers.)—*Beaked Parsley*.

*Chærophyllum Anthriscus* (Lam) Benth.

Districts (1) (2) - 4 5 - - 8 9 - 11 12  
 Lat. 51°-56°. From South to North of Ireland.

Type in Great Britain, British?

Sandy banks, and waste places usually near houses; rather rare. *Fl.* May, June.

(1.) By an old castle near Carrigaline, but not seen recently; *Flor. Cork*.—(2.) A single specimen at Blackpool, Cork; *I. C.*—4. Plentiful on the Murrough of Wicklow; *D. M.*—5. In several places about Dublin, Portmarnock, &c.; *D. M.* Abundant on the sea-shore near Skerries; *I. C.*—7. In West Meath; *Mr. F. J. Foot*.—8 and 9. About the village of Foxford, Mayo; *A. G. M.*—11. Town of Donegal; *Flor.*

*Ulst.*—12. The Trench, Comber! Strand at Mount Stewart, near Belfast; *Mr. S. A. Stewart.* Shore at Portaferry; Curran of Larne; *Flor. Ulst.* Abundant at Magilligan, Derry; Ballintoy, Antrim; *D. M.*

Possibly introduced in some of the inland localities, but certainly indigenous on the coast.

[*A. Cerefolium* (Hoffm.), *Garden Chervil*, is occasionally found under hedges and in waste places near houses and gardens, but is, no doubt, an outcast from cultivation, and does not seem to be permanent in any of its stations.]

### CHÆROPHYLLUM Linn.

#### 1. *C. temulum* (Linn.)—*Rough Chervil.*

Districts - - 3 - 5 - - - - - 12

Lat. 52°-55°. East side of Ireland.

Type in Great Britain, British, inclining to English.

Hedge-banks; very rare in Ireland. *Fl.* June, July.

3. Road-sides near Kilnock, Carlow; *I. C.*—5. In several places near Dublin, Glasnevin; Donnybrook; Windy Harbour; Raheny; *Ir. Flor.* Hedges near Ballinteer; *Mr. D. Orr.* Hedge-banks near Coolock, &c., rather rare; *D. M.* About Kinsaley churchyard; *the late Mr. J. White.*—12. Near Dundalk; Ballycastle; *Flor. Ulst.* Malone, near Belfast; *Mr. S. A. Stewart.* On the shores of Lough Neagh, near Ballyronan, extremely rare in the north of Ireland; *D. M.*

### MYRRHIS Scop.

#### 1. \* *M. odorata* (Scop.)—*Sweet Cicely.*

Districts - - - - 5 - 7 - - 10 11 12

Waste places, always near houses, and no doubt an escape from cultivation.

5. In orchards and hedges in the County of Dublin; *Wade Dubl.* (not noticed by *D. M.*). Near Oldcastle, &c., in Meath; *Flor. Hib.*—7. Churchyard of Crossadree, West Meath; *Miss E. Reynall.*—10. Tanderagee, Armagh; *Flor. Ulst.* Near Monaghan; *Miss Maffett.*—11. In Donegal, near Killybegs, &c., but always near cottages; *A. G. M.* In plantations and way-sides in the north-west of Ireland, possibly

introduced; *Prof. E. Murphy*. Rare in Ulster; Ballyronan, Moneymore; Bellaghy; Ballycarry; Colin Glen; *Flor. Ulst.* Brookmount, Lisburn; *Flor. Belf.* Near Hillsborough and Newtonards; *Mr. S. A. Stewart*. Frequent near houses in Derry, and occurs also among rocks at Umbra, Magilligan; *D. M.*

*CONIUM* Linn.

1. *C. maculatum* (Linn.)—*Hemlock*.

Districts 1 2 3 4 5 6 - 8 9 10 11 12  
 Lat. 51°–56°. Throughout Ireland.

Type in Great Britain, British.

Banks, hedges, waste places, and among ruins; frequent.  
*Fl.* June, July.

Apparently introduced in many of its localities.

*SMYRNIUM* Linn.

1. † *S. Olusatrum* (Linn.)—*Alexanders*.

Districts 1 2 3 4 5 6 7 8 9 10 11 12  
 Lat. 51°–56°. From South to North of Ireland.

Type in Great Britain, English.

Hedges and waste places, and among ruins; frequent.  
*Fl.* May, June.

Probably introduced in all its localities, yet having at present much the appearance of a native in some of the stations. It was formerly much cultivated as a pot-herb.

[*Coriandrum sativum* (Linn.) *Coriander* has been gathered once or twice near Belfast and Dublin, but is not established.]

*Obs.*—*Trinia vulgaris* (D C.) is described by Wade, under the name of *Pimpinella dioica*, as growing in great quantities in the pasture fields near the church of Athboy, County Meath; but we fear that in this case, as with many other of Dr. Wade's plants, some mistake was made in the name.

## ORDER XXXI.—ARALIACEÆ.

## ADOXA Linn.

1. A. Moschatellina (Linn.)—*Moschatel*.

District - - - - - 12

Lat. 54°-55°. North-east of Ireland—Antrim only.

Type in Great Britain, British.

Bushy places and shady banks; very rare. *Fl.* April, May.

12. Cavehill, and Glen of Jennymount, near Belfast; *Flor.* *Hib.* Among bushes in the Deerpark at Cavehill; and Belvoir Park. Shady banks of Milewater river, a quarter of a mile above where the tide flows (Mr. Templeton). Naturalized among trees at the south-east border of the Belfast Botanic Garden; *Mr. D. Orr.* Mr. Tate informs us that the plant grows under hawthorn bushes at Cavehill, where it now seems perfectly wild.

## ORDER XXXII.—HEDERACEÆ.

## HEDERA Linn.

1. H. Helix (Linn.)—*Ivy*.

Districts 1 2 3 4 5 6 7 8 9 10 11 12

Lat. 51°-56°. Throughout Ireland.

Type in Great Britain, British.

Rocks, banks, woods, walls, &c.; common. *Fl.* October to December.

A form with unusually broad and fleshy leaves is said to grow wild on the western shores of Ireland, and is often cultivated under the name of "Irish Ivy." Whether this be the true "*H. Canariensis*" we have not been able to determine, but it has eight rays to its scales, and is very unlike the Ivy here given under the name of "*Hodgensii*." Another variety, with the upper leaves deeply cut, and rarely 12 to 15-rayed scales on the stems of the panicle, occurs on walls at Merrion, and in the Phoenix Park, Dublin.

*Var. β Hodgensii* (Nob.)

This variety, made known by Mr. Hodgens, and noticed

by Dr. Mackay (Flor. Hib., p. 135), is closely allied to the "palmate" Ivy often cultivated in gardens. It is remarkable from the resemblance which its leaves bear to those of a Passion-flower; they are deeply cut, 3-7 lobed, and usually cuneate from the base. This Ivy is said to have been found growing wild near the former Nursery Gardens at Dungans-town, Wicklow, and is, we believe, the same plant which is often inserted in nurserymen's catalogues as *H. Helix*, var. *incisa*. The scales on the panicles are 12 to 14 or 15-rayed, and Dr. Seemann has referred it as a variety to *H. canariensis* (Journal of Botany, Vol. iii., p. 201), but we believe that it should rather be placed under *H. Helix*. Whether the plant reported as found in Kerry, and in the South Isles of Arran, in Galway Bay, be the true *H. canariensis*, is a question that must be left for further investigation. Some leaves recently received from the Azores seem to agree partly with the so-called "Irish Ivy," others come near to *H. Regneriana*.

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ORDER XXXIII.—CORNACEÆ.

*CORNUS* Linn.

1. *C. sanguinea* (Linn.)—*Cornel*, or *Dogwood*.

Districts - (2) (3) - (5) 6 - - - 10 - -

Lat. 52°-55°. West, and perhaps North, of Ireland.

Type in Great Britain, English.

Hedges and thickets, and in rocky places; very rare in the wild state. *Fl.* June, July.

2. At Castle Hyde and elsewhere, near Fermoy, perhaps introduced; *Mr. T. Chandlee*.—3. Warrington Wood, Kilkenny; *Rev. S. Madden*. A single locality by a road-side in Carlow, but the station suspicious; *I. C.*—5. Road-side near Mullamast, Ballitore, Kildare; *I. C.* Abundant in hedges below Coolock, scarcely indigenous; *Flor. Hib.* Along the Barrow, between Birt and Athy; *the late Mr. J. White, MS.*—6. In crevices of limestone rocks, South Isles



of Arran, truly wild; *Flor. Hib.*—10. On an islet in the lake at Lough-gall Manor, Armagh, apparently indigenous; *A. G. M.*

[*Viscum album*, Linn. (the Mistletoe), is not at present known as a native of Ireland. Ruttly records that it was once found on a Crab-tree at Island-bridge, Dublin. Wade notices a single plant which he saw growing at Kilmainham on an apple-tree which had been brought from England. Dr. Patrick Browne also mentions the Mistletoe as occurring "In Betulis, *Castle-mac-Garrett*, tantum." This locality is near Claremorris, in Mayo; but it seems possible that the bushy, nest-like, excrescences so often seen upon the Birch were mistaken for the Mistletoe.]

## ORDER XXXIV.—CAPRIFOLIACEÆ.

### *SAMBUCUS* Linn.

#### 1. † *S. Ebulus* (Linn.)—*Dwarf Elder*, *Danewort*.

Districts 1 2 3 4 5 6 - - 9 10 11 12  
 Lat. 51°–56°. Throughout Ireland.

Type in Great Britain, English.

Hedges, waysides, waste places, and about ruins; rather rare, and usually in suspicious stations. *Fl.* August.

#### 2. *S. nigra* (Linn.)—*Common Elder*.

Districts 1 2 3 4 5 6 7 8 9 10 11 12  
 Lat. 51°–56°. Throughout Ireland.

Type in Great Britain, British, inclining to English.

Woods, thickets, hedges, &c.; frequent. *Fl.* June.

This is much cultivated in cottage-gardens, whence both the ordinary form and that known as Cut-leaved Elder frequently escape to roadsides and hedges. But the plant is no doubt truly native in many places throughout Ireland.

### *VIBURNUM* Linn.

#### 1. *V. Opulus* (Linn.)—*Common Guelder-rose*.

Districts 1 2 3 4 5 6 7 8 9 10 11 12  
 Lat. 51°–56°. Throughout Ireland.

Type in Great Britain, British, inclining to English.

Woods, hedges, and bushy or rocky places; frequent. *Fl.* June, July.

[*V. Lantana* (Linn.), *Wayfaring Tree*, is occasionally seen in plantations and parks, but does not occur in any quantity, and is only seen in situations where it may have been planted. Mr. D. Orr informs us that *V. Opulus* was the species observed by him on the Cave Hill.]

LONICERA Linn.

1. *L. Periclymenum* (Linn.)—*Honeysuckle*.

Districts 1 2 3 4 5 6 7 8 9 10 11 12  
Lat. 51°–56°. Throughout Ireland.

Type in Great Britain, British.

Woods, hedges, and rocky or heathy places; common. *Fl.* June, August.

From sea level to 1100 feet on Errigal; (Flor. Ulst.)

[*L. Xylosteum* (Linn.) is recorded in the "Natural History Review" (O. S.), Vol. iv., p. 227, as found in a copse near the cab-hole on Kippard Mountain, six miles from Mount Mellick, in Queen's County; but it was probably planted in this locality.]

ORDER XXXV.—RUBIACEÆ.

SHERARDIA Linn.

1. *S. arvensis* (Linn.)—*Field Madder*.

Districts 1 2 3 4 5 6 7 8 9 10 11 12  
Lat. 51°–56°. Throughout Ireland.

Type in Great Britain, British, inclining to English.

Cultivated land and dry banks; frequent. *Fl.* May, July.

ASPERULA Linn.

1. *A. cynanchica* (Linn.)—*Quinancy-wort*.

Districts 1 2 - - - 6 - 8 - - -  
Lat. 51°–54°. South and West of Ireland.

Type in Great Britain, English.

Calcareous pastures, and sand-hills near the sea; local. *Fl.* June, July.

1. Near Castle Gregory, Kerry; *D. M.*—2. Near Youghal (Miss Ball); *Flor. Cork* (now extinct; *I. C.*). Tramore, Waterford; *Rev. S. Madden.*—6. Sandy coast of Clare; *D. M.* Lahinch; *Mr. C. Carter.* Miltown Malbay; *Prof. Harvey.* Abundant throughout the Burren district of Clare; *Flor. Hib.* and *Mr. F. J. Foot.* Plentiful about Castle Taylor, Galway; *A. G. M.* In the large Island of Arran; *Flor. Hib.*—8. Sea-shore at Aughris, in Connemara; *Wade Rar.* Roundstone; *Prof. D. Oliver.* Common about Castlebar; *Dr. Patrick Browne.*

2. *A. odorata* (Linn.)—*Sweet Woodruff.*

Districts 1 2 3 4 5 6 7 8 9 10 11 12  
 Lat. 51°–56°. Throughout Ireland.

Type in Great Britain, British.

Woods and shady places; frequent. *Fl.* May, June.

From sea-level to 300 feet in Antrim (*Mr. Orr.*)

*GALIUM* Linn.

1. *G. boreale* (Linn.)—*Northern Bed-straw.*

Districts 1 2 - - - 6 7 8 9 10 11 12  
 Lat. 51°–56°. West and North of Ireland chiefly.

Type in Great Britain, Highland.

Moist rocky places; very local. *Fl.* July, August.

1. In a marshy spot half way up Mangerton mountain, Kerry; *Flor. Hib.*—2. In Croan Marsh, near Clonmel, Waterford; *Miss S. Grubb.*—6. In several places in Burren, Clare; *Mr. F. J. Foot.* At Castle Taylor; and at Garryland, near Gort, in Galway; *A. G. M.* Shores of Lough Derg; *D. M.*—7. Shores of Lough Ree, in Westmeath and Longford; *Mr. F. J. Foot.*—8. Common in mountainous places, and about the loughs in Galway; plentiful on islands in Lough Corrib; *Wade Rar.* Shores of Lough Cullin, Mayo; *A. G. M.*—9. Banks of Lough Carra, Mayo; *Mr. J. Ball.* By Lough Ree, in Roscommon; *Mr. F. J. Foot.*—10. Banks of Lough Erne, near Ely Lodge; *Flor. Hib.* Shores of Lough Neagh in Armagh; *A. G. M.* On Sawell mountain; *Admiral Jones.*—11. In Donegal; *Admiral Jones.*—12. By Lough Neagh,

at Shane's Castle; *Flor. Hib.* Portmore; Ballyronan; Toome, &c.; *Flor. Ulst.* By Lough Beg; Lough Neagh; and on Clontygearagh mountain, Derry. Abundant on Lurgedon mountain, Antrim; *D. M.*

Ranges from about 50 feet in Galway and Derry to 1200 in Kerry.

2. *G. Aparine* (Linn.)—*Goose-grass* or *Cleavers*.

Districts 1 2 3 4 5 6 7 8 9 10 11 12 . . .  
 Lat. 51°–56°. Throughout Ireland.

Type in Great Britain, British.

Hedges and bushy places; common. *Fl.* June to August.

3. *G. erectum* (Huds.)—*Upright Bed-straw*.

*G. Mollugo* var. Bentham.

District — — — — 5 — — — — — — — —  
 Lat. 53°–54°. East of Ireland—County of Dublin only.

Type in Great Britain, Germanic.

Pastures and banks; very rare. *Fl.* June, July.

5. In a field at Stagstown! south of Rathfarnham, on the north-west slope of the Dublin mountains; *Mr. Simon Foot*. On the north side of Killiney Hill; *Flor. Hib.* In a meadow by the Tolka! adjoining the Botanic Gardens and cemetery, Glasnevin; *D. M.* and *A. G. M.*

4. *G. Mollugo* (Linn.)—*Great Hedge Bed-straw*.

Districts — — — — 5 — — — — — — — 12  
 Lat. 53°–55°. East of Ireland.

Type in Great Britain, English, inclining to British.

Dry banks and bushy places; rare, and very local. *Fl.* July, August.

5. At Sandymount, near the Martello Tower; *Mackay Cat. Ir.* Fields and road-sides between Finglas quarries and Glasnevin; common on the lands of Abbeville and Ballymun; *Ir. Flor.* Between Swords and Skerries, plentiful in hedges and borders of fields; *D. M.* Lands about Knocksedan; *the late Mr. J. White*.—12. Lawn at Mr. Vernon's, near Belfast; *Flor. Hib.* Lawn opposite Glenarm Castle (G. D.); *Flor. Ulst.* The Rev. S. Madden believes that he has seen

*G. Mollugo* at Tramore, Waterford, a locality in which the plant is not unlikely to occur.

5. *G. verum* (Linn.)—*Yellow Bed-straw*.

Districts 1 2 3 4 5 6 7 8 9 10 11 12.

Lat. 51°–56°. Throughout Ireland.

Type in Great Britain, British.

Dry banks, and sand-hills by the sea; frequent.

*Fl.* July, August.

6. *G. saxatile* (Linn.)—*Heath Bed-straw*.

Districts 1 2 3 4 5 6 7 8 9 10 11 12

Lat. 51°–56°. Throughout Ireland.

Type in Great Britain, British.

Heaths and moors; common. *Fl.* July, August.

Ranges from about sea-level to 2,460 feet on Errigal, to 2796 feet on Slieve Donard (*Flor. Ulst.*), and probably higher in the south of Ireland.

7. *G. sylvestre* (Poll.)—*Least Mountain Bed-straw*.

*G. pusillum* (Linn.) Brit. Flor. and Flor. Hib. *G. saxatile* var. Bentham.

Districts 1 - 3 - - 6 - - - - 12

Lat. 51°–56°. West and North of Ireland chiefly.

Type in Great Britain, Intermediate, inclining to Highland.

Pastures and rocky places, on a calcareous or basaltic soil; rare. *Fl.* June, July.

1. Limestone rocks at Muckruss, Killarney; *Flor. Hib.* and *Admiral Jones*.—3. ? Ballyglasane Hill, Kilkenny; *Rev. S. Madden*.—6. Near Corrofin, and at Rock Forest, Clare; *Flor. Hib.* Abundant in Burren; *Mr. F. J. Foot*. Plentiful about Castle Taylor, Galway; *A. G. M.* Great Isle of Arran; *Mr. W. Andrews*.—12. White Rock, near Belfast (very rare); also on Lurgedon mountain, near Cushendall, and on dry basaltic rocks at Fair Head, Antrim; *D. M.* Rathlin Island; *Flor. Ulst.* Said to have been found near Cork, but has not been observed there except by Mr. Nash, who is also the sole authority for *Erica Mackaiana* and *Dabeocia polifolia* in the "*Flora of Cork*."

8. *G. uliginosum* (Linn.)—*Rough Marsh Bed-straw*.

Districts - - - 4? 5 6? - - - - -  
 Lat. 51° or 53°-54°. East, perhaps also Middle of Ireland.  
 Type in Great Britain, British, inclining to English.

Boggy places; very rare in Ireland; *Fl.* July to August.—

4. Along the sea-shore, below Killencarrick, Wicklow; *Ir. Flor.*—In a marsh near Mr. C. Reilly's nursery garden, Delgany, Wicklow; (Mr. Underwood), *Mackay Cat. Ir.* 5. By the millpond and in a bog at Mount Blake, Ballytore, Kildare; *I. C.* About Templeogue and Terrenure; *Wade Dubl.* Bogs about Robertstown, Kildare; marshes at the foot of the Saddle and Trumpet mountains, Louth; *Ir. Flor.*—6? Bogs at Lemonfield, near Oughterard, Galway; *Ir. Flor.*

We have seen no Irish specimen, and should have excluded this species, but that our accurate correspondent and friend, Mr. Carroll, feels quite sure that he has gathered *G. uliginosum* (Linn.) at Ballitore; but he believes that it does not grow in the South of Ireland. Mr. J. Drummond gives only Ballyphehane bog as a locality; and in the "Flora of Cork" the unlikely station of "hedges" renders the species at least doubtful. *G. uliginosum* is termed frequent by Dr. Dickie, in the "Flora of Ulster," but has not come under the notice of *D. M.*, in the north of Ireland, or of *A. G. M.* in the counties of Galway and Mayo. It is probable that some state of *G. palustre*, perhaps *var. Witheringii*, has been mistaken for *G. uliginosum* in some of the stations above quoted.

9. *G. palustre*—*White Water Bed-straw*.

Districts 1 2 3 4 5 6 7 8 9 10 11 12

Lat. 51°-56°. Throughout Ireland.

Type in Great Britain, British.

Ditches and marshy places; common. *Fl.* June, July.

The large form (*G. elongatum* Presl.) has been found on the banks of the Boyne, near Slane, and in the county of Cavan, but is of comparatively rare occurrence. The variety *witheringii* is not uncommon, and, we believe, has in many localities been mistaken for *G. uliginosum*.

## RUBIA Linn.

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

Districts 1 2 - - 5 6 - 8 9 - - -

Lat. 51°-54°. East, South, and West of Ireland.

Type in Great Britain, Atlantic.

Bushy banks and rocky places, chiefly on calcareous soils and near the coast; very local. *Fl.* June, August.

1. Abundant on limestone rocks at Mucruss and Killarney; *Flor. Hib.* Turk, Ross Island, and Cahirnane; *Admiral Jones*.—1 and 2. Rather common along the coast of Cork; *Flor. Cork*.—2. Tramore, Waterford; *Mackay Rar.* Cliffs at Tramore; *Miss S. Grubb*.—5. Hills of Howth and Dalkey; *Wade Rar.* Howth and Killiney Hill; *Flor. Hib.*—6. Abundant in Burren; *Mr. F. J. Foot.* Iverne Head, Clare; *D. M.* At Kilmacduagh, near Gort; and at Castle Taylor, Galway; *A. G. M.* Isles of Arran, in Galway Bay; *Prof. Melville*.—8. Plentiful on the shores of Lough Mask; *Prof. Melville*.—9. Banks of Lough Carra, Mayo; *Mr. J. Ball*.

## ORDER XXXVI.—VALERIANACEÆ.

## VALERIANA Linn.

1 *V. officinalis* (Linn.)—*Wild Valerian*.

Districts 1 2 3 4 5 6 7 8 9 10 11 12

Lat. 51°-56°. Throughout Ireland.

Type in Great Britain, British.

Moist woods, ditches, and sides of rivers; frequent. *Fl.* June, July.

Mr. Stewart has sent from Antrim some leaves which may be those of *V. sambucifolia* (Mik.); but we do not feel any confidence in distinguishing it from *V. officinalis* (Linn.), of which it seems to be only a slight variety.

[*Centranthus ruber* (D C.), *Red Valerian*, abounds on walls about Cork, Clonmel, Fermoy, Enniscorthy, and other towns in the south of Ireland. It has also been noticed on walls

about the village of Kilfenora, in Burren, Clare (*Mr. F. J. Foot*), and in the neighbourhood of Dublin, but does not appear to extend to really wild stations.]

*VALERIANELLA* Moench.

1. *V. olitoria* (Moench).—*Common Corn-Salad*.

*Fedia olitoria* (Vahl.) Brit. Flor. and Flor. Hib.

Districts 1 2 3 4 5 6 7 - - 10 11 12

Lat. 51°–56°. Throughout Ireland.

Type in Great Britain, British.

Cultivated fields, banks, and waste places; frequent. *Fl.* May, July.

Not uncommon on a light soil in some parts of the country, and especially abundant along the sandy sea-coast of Ulster. Probably overlooked in the two western districts, from which it is not yet recorded, though likely to be really more scarce westward.

2. *V. Auricula* (D C.)—*Sharp-fruited Corn-Salad*.

*Fedia Auricula* (Gand.), Brit. Flor. and Flor. Hib.

Districts 1 2 - - 5 6 - 8 9 - - -

Lat. 51°–54°. South, West, and East of Ireland.

Type in Great Britain, English.

Cultivated fields; rare. *Fl.* July, August.

1. Near the western head of Clonakilty Bay; *Flor. Cork*. Waste places at Cove; *Prof. Harvey*.—2. Near Cork, found by C. C. B.; *I. C.* And only in the vicinity of gardens; *Mr. J. Sullivan*.—5. Near Clougher Head, Louth; *Mr. J. Ball*.—6. Near Castle Taylor, Galway; *A. G. M.*—8. Oughterard; *C. C. B.*—9. Near Foxford, Mayo; *A. G. M.*

Probably overlooked in many places owing to its resemblance to *V. dentata*.

3. *V. dentata* (Deitr.)—*Narrow-fruited Corn-Salad*.

*Fedia dentata* (Vahl.), Brit. Flor. and Flor. Hib.

Districts 1 2 3 4 5 6 7 8 - 10 - 12

Lat. 51°–56°. From South to North of Ireland.

Type in Great Britain, English, inclining to British.

Cultivated fields and banks; rather rare. *Fl.* July, Aug.



1. Killarney; *C. C. B.*—1 and 2. About Cork; *Flor. Cork* and *I. C.* Near Fermoy; *Mr. T. Chandlee.* Waterford; *I. C.*—3. Near Kilmacow, Kilkenny; *Mr. T. Chandlee.*—4. Near Bray, Wicklow; *D. M.*—5. Ballytore; *I. C.* Feltrim-hill, Dublin; *Ir. Flor.* Ann's-brook, Meath; *Prof. E. Murphy.* Corn-fields at Baldoyle; *D. M.*—6. Near Castle Taylor, Galway; *A. G. M.*—7. Near Belvedere Lake, West Meath; *D. M.*—8. Oughterard, Galway; *C. C. B.*—10. Abundant at Oldcastle and Lisnabrin, Cavan; *Flor. Ulst.*—12. Curran of Larne; *Flor. Ulst.* Rathlin Island; *D. M.* Corn-field by Lough Foyle, Derry; *Prof. E. Murphy.*

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ORDER XXXVII.—DIPSACACEÆ.

*DIPSACUS.*

1. *D. sylvestris* (Linn.)—*Wild Teasel.*

Districts 1 2 3 - 5 6 - - - - -  
 Lat. 51°-54°. Southern half of Ireland.

Type in Great Britain, English.

Hedge-banks and waste places; rather rare. *Fl.* July.

1 and 2. On the highways round the city of Cork; *Smith's "Cork."* Rather rare, *Flor. Cork*, but in both divisions of the county; *I. C.* Field near Glanworth Castle, but very rare near Fermoy; *Mr. T. Chandlee.* Ardmore, Waterford; *I. C.* Abundant along the river at Carrick-on-Suir; *Miss S. Grubb.*—3. Granagh, Kilkenny; *Mr. T. Chandlee.*—5. Black quarries, on the way to Raheny; *Wade Dubl.* Cardiff's-bridge; on the Commons; between Kilbarrock Church and Clontarf; *Ir. Flor.* Fields and road-sides near Swords; *D. M.* Banks of the Tolka, above Finglas; *Rev. H. G. Carroll.* Knockmaroon Hill; *Mr. D. Orr.*—6. By the Shannon, below Limerick; *I. C.* Plentiful near Cratloe, County Limerick; *Mr. F. J. Foot.* In Clare, near the Limerick border; *Rev. T. O'Mahony.* (In two or three localities near Belfast, but very doubtfully wild; *Mr. R. Tate.*)

*KNAUTIA* Coult.1. *K. arvensis* (Coult.)—*Field Scabious*.*Scabiosa arvensis* (Linn.), Bentham.Districts 1 2 3 4 5 - 7 8 9 10 *H* 12

Lat. 51°–56°. From South to North of Ireland.

Type in Great Britain.

Pastures, banks, and corn-fields; frequent, but not everywhere. *Fl.* July to September.

Local in the north of Ireland, and rare, or wanting, in the north-west.

*SCABIOSA* Linn.1. *S. succisa* (Linn.)—*Devil's-bit Scabious*.

Districts 1 2 3 4 5 6 7 8 9 10 11 12

Lat. 51°–56°. Throughout Ireland.

Type in Great Britain, British.

Damp grassy places, heaths, moors, and mountains; common. *Fl.* July to October.

Ranges from sea-level to 2500 feet.

## ORDER XXXVIII.—COMPOSITÆ.

*EUPATORIUM* Linn.1. *E. cannabinum* (Linn.)—*Hemp Agrimony*.

Districts 1 2 3 4 5 6 7 8 9 10 11 12

Lat. 51°–56°. Throughout Ireland.

Type in Great Britain, British, inclining to English.

Wet bushy places, and among rocks; frequent. *Fl.* July, August.

Not a common species in Ireland, but appears to be widely distributed, ranging through all the districts.

*PETASITES* Gaert.1. *P. vulgaris* (Desf.)—*Butter-bur*.*Tussilago Petasites* (Linn.), Bentham.

Districts 1 2 3 4 5 6 7 8 9 10 11 12

Lat. 51°–56°. Throughout Ireland.

Type in Great Britain, British, inclining to English.

Damp meadows and banks of rivers; frequent. *Fl.* April, May.

In Galway, observed by A. G. M. only in the neighbourhood of houses and cottage gardens, having probably been formerly cultivated for medicinal uses.

[*P. fragrans* (Presl.) is becoming naturalized in the neighbourhood of gardens and shrubberies, and along roads and hedges in the Counties of Dublin, Cork, &c.]

*TUSSILAGO* Linn.

1. *T. Farfara* (Linn.)—*Coltsfoot*.

Districts 1 2 3 4 5 6 7 8 9 10 11 12

Lat. 51°–56°. Throughout Ireland.

Type in Great Britain, British.

Damp fields and banks; common. *Fl.* March, April.

*ASTER* Linn.

1. *A. Tripolium* (Linn.)—*Sea Starwort*.

Districts 1 2 - 4 5 6 - 8 9 - 11 12

Lat. 51°–56°. Round the coast of all Ireland.

Type in Great Britain, British.

Salt marshes and rocks by the sea; common. *Fl.* August, September.

*ERIGERON* Linn.

1. *E. acris* (Linn.)—*Blue Flea-bane*.

Districts - 2 3 4 5 6 - - - - -

Lat. 52°–54°. East and South of Ireland, chiefly.

Type in Great Britain, English.

Dry pastures and sandy banks; rare. *Fl.* July, August.

2: Near Clonmel; *D. M.*—3. Quarry near Gaul's-mills, and Catsrock; *Mr. T. Chandlee*. Near Richmond, Kilkenny; *Rev. S. Madden*. Road-side two miles north-east of Carlow; *Mr. John Sim.*—4. Near Enniscorthy, Wexford; *I. C.* Along the river-side between Enniskerry and Lough Bray; *Ir. Flor.*—5. At Blackrock; *Threlkeld*. By the North Wall, Dublin; Rathfarnham; between Sandymount and Merrion; *Wade Dubl.* Quarries at Finglas; between the Warren and Howth; *Ir. Flor.* Near the canal a mile from Lucan; banks

of the Dodder above Templeogue; *Flor. Hib.* Ballikore Rath; Narraghmore; road-side at Ballykillane, near Ballitore; sparingly in all these stations; *I. C.* Railway banks near Raheny; *A. G. M.* Abundant at Baldoyle; *Mr. D. Orr.*—6. Near Castle Taylor, Galway; *A. G. M.* Recorded by Mr. Millen as found on the Cave Hill, Belfast; but not included by Dr. Dickie in the "*Flora of Ulster.*"

*BELLIS* Linn.

1. *B. perennis* (Linn.)—*Daisy*.

Districts 1 2 3 4 5 6 7 8 9 10 11 12

Lat. 51°–56°. Throughout Ireland.

Type in Great Britain, British.

Meadows, pastures, and banks; common. *Fl.* March to October.

From sea-level to 1400 feet on Slieve Gullion (*D. M.*).

*SOLIDAGO* Linn.

1. *S. Virgaurea* (Linn.)—*Golden Rod*.

Districts 1 2 3 4 5 6 7 8 9 10 11 12

Lat. 51°–56°. Throughout Ireland.

Type in Great Britain, British.

Heaths, thickets, and rocky places; frequent. *Fl.* July to September.

*Var. β. cambrica* (Huds.). Not uncommon in rocky places on mountains.

Ranges from sea-level to 2000 feet on Muckish (*Flor. Ulst.*).

*INULA* Linn.

1. *I. salicina* (Linn.)—*Willow-leaved Inula*.

District - - - - - 6 - - - - -

Lat. 53°–54°. West of Ireland—County of Galway only,

Hibernian Type. Not found in Great Britain.

Rocky pastures on a calcareous soil; very rare. *Fl.* July.

6. On the north-west shore of Lough Derg, near Portumna; *D. M.* (Seemann's Journal of Botany, 1865, iii., 333, and iv., 33).

The locality is very near to that of *Sisyrinchium anceps*.

2. † I. *Helenium* (Linn.)—*Elecampane*.

Districts 1 2 - 4 - 6 - 8 - 10 - 12

Lat. 51°–56°. From South to North of Ireland.

Type in Great Britain, English, inclining to Atlantic.

Pastures and waste places, usually near houses and ruins ; rare. *Fl.* July to September.

1. In the barony of Clanmaurice, not far from the Abbey of Odorney ; *Smith's "Kerry."* At Caluaferesy, and on high ground between Miltown and Tralee, Kerry ; *Mackay Cat. Ir.* About a mile west of Knight's town, in the Island of Valentia ; *Miss S. Grubb.* Near Macroom ; banks of the Lee, near the Leap in West Carbery ; plentiful in Cape Clear Island ; *Smith's "Cork."* Near Carrigafouky Castle ; *Drummond.* About Rosscarbery ; *Flor. Cork.* Sea Shore near Bantry and by the Sullane river, Cork ; *Flor. Hib.*—2. Side of a hill between Lismore and Tallow ; *Smith's "Waterford."*—4. Ballyconigar, Wexford ; *I. C.* Whaley Abbey, Wicklow ; *Mr. L. Ogilby.*—6. Near the old bridge at Craggone, in the barony of Inchiquin ; *Wade Rar.* One or two plants near Ross, in Clare ; *I. C.* Foot of Shalee Hill, near Ennistymon ; and abundant on the road to St. Bridget's Well, near the cliffs of Moher ; *Rev. T. Warren.*—8. In an old church-yard in Innisnee Island in Bitterbuy (Bertraghubay) Bay ; *Mr. L. Ogilby.* On Craig Nest Island ; *C. C. B.* By a stream near Clifden, Connemara ; *I. C.* Devenish Island, near Enniskillen ; *Flor. Hib.*—12. Near Whiterock ; Upper Ballysillan, and near Colin Mountain ; banks of the river, south of Glenarm ; Near Whitehouse and at Bellaghy, Derry ; Rathlin Island ; *Flor. Ulst.* Naturalized near Cottages, but not wild, in Derry ; apparently wild among limestone rocks between Larne and Garron Head, Antrim ; *D. M.*

3. I. *crithmoides* (Linn.)—*Golden Samphire*.

*Limbarda crithmoides*, *Flor. Hib.*

Districts 1 2 - - 5 - - - - - - - - -

Lat. 51°–54°. South and East coasts of Ireland.

Type in Great Britain, Atlantic, inclining to English.

Rocks and banks by the sea ; rare. *Fl.* July, August.

1. Rocks near Bolus Head, in Iveragh; *Smith's "Kerry."* On the rocky coast near Dingle; *D. M.* On rocks by the shore near Castlefreke; *Flor. Cork.*—2. Rocks at Tramore, Waterford; *I. C.*—5. South side of Killiney Hill; *Flor. Hib.* Dalkey Island; *Mr W. Walpole.* South side of the Hill of Howth and in Lambay Island; *Flor. Hib.*

*PULICARIA* Gaert.

1. *P. dysenterica* (Gaert.)—*Common Flea-bane.*

*Inula dysenterica* (Linn.) Bentham.

Districts 1 2 3 4 5 6 7 8 9 10 11 12

Lat. 51°–56°. Throughout Ireland.

Type in Great Britain, English.

Damp pastures and marshy places; frequent. *Fl.* August, September.

*BIDENS* Linn.

1. *B. triparita* (Linn.)—*Trifid Bur-Marygold.*

Districts 1 2 - 4 5 6 - 8 9 10 11 12

Lat. 51°–56°. Throughout Ireland.

Type in Great Britain, English, inclining to British.

Marshy places, bogs, and ditches; frequent. *Fl.* August, September.

Less common than *B. cernua*.

2. *B. cernua* (Linn.)—*Nodding Bur-Marygold.*

Districts 1 2 3 4 5 - 7 8 9 10 11 12

Lat. 51°–56°. Throughout Ireland.

Type in Great Britain, English, inclining to British.

Marshy places, bogs, ditches, &c.; frequent. *Fl.* August, September.

*ACHILLEA* Linn.

1. *A. Ptarmica* (Linn.)—*Sneeze-wort.*

Districts 1 2 3 4 5 6 7 8 9 10 11 12

Lat. 51°–56°. Throughout Ireland.

Type in Great Britain, British.

Damp gravelly pastures, and marshy places; frequent. *Fl.* July, August.

Rare in the south-east of Ireland; *I. C.*

2. **A. Millefolium** (Linn.)—*Yarrow Milfoil*.

District 1 2 3 4 5 6 7 8 9 10 11 12

Lat. 51°–56°. Throughout Ireland.

Type in Great Britain, British.

Meadows and pastures; common. *Fl.* June, August.

From sea-level to 1000 feet in Derry.

[*A. tomentosa* (Linn.) has been found by Miss Keown near Newcastle, County Down; *Mr. J. Ball* (A. N. H., Vol. ii., p. 32, 1839), and had also been received from Ireland by Sir James Smith; but there is no evidence that it is naturalized in this country.]

## ANTHEMIS Linn.

1. **A. arvensis** (Linn.)—*Corn Chamomile*.

Districts 1 2 - - 5 - - 8 - - - 12

Lat. 51°–55°. South and East of Ireland.

Type in Great Britain, English, inclining to British.

Cultivated fields on a light soil; rare. *Fl.* May and June.

1. Corn-fields at Dingle, Kerry; *D. M.* Great Island; near Carrigaline; Ringaskiddy; and Shanbally; *Flor. Cork*, (not found by *I. C.*).—2. South Creg, Fermoy; *Mr. T. Chandlee*.—5. In the Phoenix Park, Dublin; *Flor. Hib.* Lyons, Dublin; *Mr. T. Chandlee*. Plentiful in a field at Baybush, parish of Straffan, Kildare; *Mr. J. Douglas*.—8. Road-side near the ruined church of Killanan, east of Ross Lake, Galway; *Prof. Melville*.—12. On the shores of Strangford Lough, Down; *D. M.*

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

Districts 1 2 3 4 5 6 7 8 - - - 12.

Lat. 51°–56°. From South to North of Ireland.

Type in Great Britain, English, inclining to British.

Cultivated fields and way-sides; frequent. *Fl.* July, August.

Very rare in the north and north-west of Ireland; common about Dublin.

3. *A. nobilis* (Linn.)—*Common Chamomile*.

Districts 1 2 - 4 - - - 8 - - - 12

Lat. 51°–56°. From South to North of Ireland.

Type in Great Britain, English.

Damp pastures and gravelly places; rather local. *Fl.* July, August.

1. Abundant in Kerry and in south-west of Cork; *I. C.*—1 and 2. Rare about Cork; *Flor. Cork.*—2. In a damp glen near Fermoy, plentifully; *Mr. T. Chandlee.*—4. Many places in Wexford; *I. C.* On Knock-cree, near Lough Bray; *Flor. Hib.* End of the long hill beyond Enniskerry; *Ir. Flor.*—8. Near Renvyle, Connemara; *Wade Rar.* Near Delphi; *Mr. J. Ball.* Shores of Lough Cullin, Mayo; *A. G. M.*—12. Tullybranaghan mountain, Down; *Ir. Flor.* Road-side between Toome and Ballyronan; commons near Comber; pastures near Lough Beg; *Flor. Ulst.* Rare in Derry; by Enagh Lough; and road-side between Moneymore and Ballyronan. Frequent on the banks of Lough Neagh, Antrim; *D. M.*

[*Anacyclus radiatus* (Lois.) was once found by Mr. W. Wilson at Dunboy Quay, Bearhaven, Cork.]

*MATRICARIA* Linn.1. *M. inodora* (Linn.)—*Scentless Feferfew*.

*Pyrethrum inodorum* (Sm.), *Flor. Hib.* *Chrysanthemum inodorum* (Linn.) Bentham.

Districts 1 2 3 4 5 6 7 8 9 10 11 12

Lat. 51°–56°. Throughout Ireland.

Type in Great Britain, British.

Cultivated fields, way-sides, and waste places; common; *Fl.* July, August.

*Var. β maritima* (*Chrysanthemum maritimum* Linn.)

On the sea coast; common.

2. † *M. Chamomilla* (Linn.)—*Field Chamomile*.

Districts ? - - - 5 - - - - - 12.

Lat. 53°–55°. East of Ireland.

Type in Great Britain, English.



Corn-fields, gardens, and way-sides; very rare; *Fl.* June, July.

1.? Cornfields near Cork (Mr. J. Drummond). About Cove and Carrigaline (Mr. Alexander); *Flor. Cork*; but some doubt is expressed as to these localities, and the plant has not been found recently.—5. “In arvis et ad vias juxta Baldoyle” (*M. suaveolens*); *Wade, Dubl.* Fields near Raheny; the late Mr. Johnston. Near Raheny Church abundantly; road-sides from Greenogue to Curragha; *Ir. Flor.*—12. Fields at Malone; Dunmurry and near Comber (Mr. Templeton); near Belfast, at Duncairn (Mr. Orr); *Flor. Ulst.* Not unfrequent in cottage gardens; *Flor. Belf.*

[*M. Parthenium* (Linn.) occurs occasionally along hedges and way-sides, and among rubbish, in the neighbourhood of cottages and gardens, but always in situations where it is evident that it has escaped from cultivation.]

### CHRYSANTHEMUM.

#### 1. *C. Leucanthemum* (Linn.)—*Ox-eye.*

Districts 1 2 3 4 5 6 7 8 9 10 11 12  
 Lat. 51°–56°. Throughout Ireland.  
 Type in Great Britain, British.

Meadows and pastures; common. *Fl.* June to August.

#### 2. *C. segetum* (Linn.)—*Corn Marygold.*

Districts 1 2 3 4 5 6 7 8 9 10 11 12  
 Lat. 51°–56°. Throughout Ireland.  
 Type in Great Britain, British.

Cultivated ground, especially on a siliceous or moory soil; frequent. *Fl.* June to August.

### DIOTIS Desf.

#### 1. *D. maritima* (Cass.)—*Sea Cudweed.*

Districts 1 2 - - - - -  
 Lat. 52°–53°. Coasts of Kerry and Waterford only.  
 Type in Great Britain, English.

Sandy sea-shores; very rare. *Fl.* August, September.

Strand at Ballyheigh, Kerry; *Smith's "Kerry."*—2. Among boulders on the strand at Tramore, Waterford, *I. C.*

## ARTEMISIA (Linn.)

1. † *A. Absinthum* (Linn.)—*Worm-wood*.

Districts 1 2 3 4 5 6 7 8 9 10 11 12  
 Lat. 51°–56°. From South to North of Ireland. A doubtful native.

Type in Great Britain, English.

Waste places and way-sides, usually near cottages and ruins, and certainly introduced in most of its localities; not unfrequent. *Fl.* July, August.

Possibly native on the south and west coasts; but even when found in apparently wild situations it has probably sprung from seeds carried from gardens; it soon becomes naturalized on a calcareous soil, and on the coast.

2. *A. vulgaris* (Linn.)—*Mugwort*.

Districts 1 2 3 4 5 6 7 8 9 10 11 12  
 Lat. 51°–56°. Throughout Ireland.

Type in Great Britain, British.

Hedges and borders of fields, &c.; frequent. *Fl.* July, September.

Perhaps introduced in some of its localities.

3. *A. maritima* (Linn.)—*Sea Worm-wood*.

District — — — — 5 — — — — — —  
 Lat. 53°–54°. East coasts of Ireland; county of Dublin only.  
 Type in Great Britain, English.

Rocky sea shores; very rare.

5. On Killiney Hill, south side; *D. M.* Rocks beyond the Martello tower, on the south-west side of Howth; *Ir. Flor.* On the Sutton side of Howth, and sea-shore opposite Portrane, abundant; *Flor. Hib.*

Some mistake was probably made by Dr. Smith in describing *A. maritima* as abundant on the coast of Cork; no other botanist has found it.

[*A. campestris* (Linn.) is recorded by Mr. W. Millen as having been found at the railway terminus in York street, Belfast, where the plant was no doubt introduced.—“*Phytologist*.” (O.S.) v. p. 187.]

## TANACETUM Linn.

1. \* *T. vulgare* (Linn.)—*Tansy*.

Districts 1 2 3 4 5 - 7 - 9 10 11 12  
 Roadsides, banks, and waste places near houses; not common, and only an escape from cultivation, but appears thoroughly established. *Fl.* August.

## FILAGO Linn.

1. *F. germanica* (Linn.)—*Common Cudweed*.

*Gnaphalium germanicum* (Huds.), Flor. Hib. and Bentham.

Districts 1 2 3 4 5 6 7 8 9 10 11 12

Lat. 51°–56°. Throughout Ireland.

Type in Great Britain, British.

Dry fields and sandy or gravelly places frequent. *Fl.* July, August.

Local in Ulster, and rare in the west of Ireland, but appears to be widely distributed, being included in nearly every county list.

*Obs.*—*F. spathulata* (Presl.) should be looked for in the south of Ireland.

2. *F. minima* (Fr.)—*Least Cudweed*.

*Gnaphalium* Smith and Flor. Hib. *G. arvense* (Willd), Bentham.

Districts 1 2 - 4 5 - - - - 10 - 12

Lat. 51°–55°. South-east and North-east of Ireland.

Type in Great Britain, British.

Sandy and gravelly places, walls, &c.; rare. *Fl.* June, August.

1 and 2. About Cork, in both divisions of the county; *I. C.*, but very rare; *Flor. Cork*. Near Clonmel; *Miss A. Taylor*. Dry hills near Fermoy; *Mr. T. Chandlee*.—4. Ballyconigar, Wexford; *Mr. J. Morrison*. Dry banks about the upper Dargle gate, and between Enniskerry and Lough Bray, plentiful; *Mackay, Cat. Ir.*—10. On the banks of Lough Neagh, in the County Armagh; *A. G. M.*—12. Portmore; shores of Lough Neagh; near Lisburn; sandy fields at Lambeg; Kinnegar; Holywood; Massareene Park; sandhills

at Newcastle; *Flor. Ulst.* Squire's Hill; *Flor. Belf.* Near the mouth of the Bann; *Mr. J. Ball.*

Not recorded from the west of Ireland.

*GNAPHALIUM* Linn.

1. *G. uliginosum* (Linn.)—*Marsh Cudweed.*

Districts 1 2 3 4 5 6 7 8 9 10 11 12

Lat. 51°–56°. Throughout Ireland.

Type in Great Britain, English.

Damp places, sides of ditches, &c., common. *Fl.* July, August.

2. *G. sylvaticum* (Linn.)—*Upright Cudweed.*

Districts 1 2 3 4 5 - - 8 9 10 H 12

Lat. 51°–56°. From South to North of Ireland.

Type in Great Britain, British.

Mountain pastures, sandhills, and thickets; frequent, but local. *Fl.* July to September.

Rather rare in the south.—1. Killarney; *C. C. B.* Kin-sale, *I. C.* 1 and 2. In South and North Cork; *I. C.* and *Mr. J. Sullivan.*—2. Near Fermoy, not unfrequent on high ground; *Mr. T. Chandlee.* In Waterford; *I. C.*—5. Once found in a field near Portersize, Ballitore, Kildare; *I. C.*—8. Oughterard and Maam, Galway; *C. C. B.* On Lettery mountain, and about Ballinahinch, Connemara; *Wade Rar.* and *Flor. Hib.* Plentiful near Lough Conn, &c., Mayo; *A. G. M.* Bartragh Island; *Mackay Cat. Ir.*—9. Abundant near Foxford; *A. G. M.*—10. Falkland, Monaghan; *Miss Maffett.* Common about Urney, Tyrone; *Admiral Jones.*—12. Sandhills north of Newcastle, Down; Kinnegar, Holywood; not unfrequent at Moneymore; *Flor. Ulst.* In a wood west of Lough Enagh and other places in Derry; *D. M.* Near the mouth of the Bann; *Mr. J. Ball.*

[*G. luteo-album* (Linn.), Belfast; *Mr. W. Thompson.* At Lambeg; *Flor. Ulst.* In sandy cultivated ground at Malone, near Belfast; *Mr. D. Orr.* No doubt accidentally introduced, and believed to have become extinct.]

## ANTENNARIA R. Br.

1. *A. dioica* (Gaert.) *Mountain Cudweed* or *Cats-foot*.

*Gnaphalium dioicum* (Linn.), *Flor. Hib.*

Districts 1 2 3 4 5 6 7 8 9 - 11 12

Lat. 51°-56°. From South to North of Ireland.

Type in Great Britain, Scottish, inclining to British.

Mountain pastures, heaths, and sandhills, frequent; *Fl.* June, July.

Rare in the south.—1. At Killarney; *C.C.B.*—2. Little Island, Cork; *Flor. Cork.* In Waterford; *I.C.*—3. Wilton, &c., Kilkenny; *Rev. S. Madden.* Frequent in the middle and north of Ireland, especially in mountainous districts.

Ranges from sea level in many places, to 1600 feet on Slieve League, Donegal; *Flor. Ulst.*

[*Antennaria margaritacea* (R. Br.) *American Cudweed.* The following localities are given, but we are not sure that the plant can be considered as thoroughly established. On the banks of old ditches and mud walls at Cloghreen, Killarney; *Wade Rar.* On old ditch banks near Miltown, Kerry; *Flor. Hib.* Near Bandon; *Drummond.* Clonmult, Barrymore; Cape Clear Island; *Flor. Cork.* Not included in the lists lately received from Professor Murphy, Mr. Carroll, and Mr. J. Sullivan.]

[*Doronicum Pardalianches* (Linn.) At Ballymacash, near Belfast, but evidently an outcast from an adjoining garden. "*Phytologist*," O.S. v. 187.]

## SENECIO Linn.

1. *S. vulgaris* (Linn.)—*Groundsel.*

Districts 1 2 3 4 5 6 7 8 9 10 11 12

Lat. 51°-56°. Throughout Ireland.

Type in Great Britain, British.

Cultivated ground and waste places, common. *Fl.* Jan. to December.

2. † *S. viscosus* (Linn.)—*Sticky Groundsel.*

Districts? - - - 4? 5 - - - - - 12

Lat. 53°-55°. East and North of Ireland.

Type in Great Britain, Germanic, inclining to British.

Waste places near towns, and banks near the sea; very rare. *Fl.* July to September.

1.? Near the basin at Cork, but not in flower (Rev. Dr. Hincks); *Flor. Cork*. About Cork; *Flor. Hib.* (possibly the same station, but has not been found recently).—4.? In Glencree, the valley between Powerscourt and Lough Bray; *Mr. J. Ball*. (We fear that in this case *S. viscosus* was recorded inadvertently for *S. sylvaticus*).—5. “In arenosis maritimis, præsertim inter Clontarf et Howth,” *Wade Dubl.* Strand near Howth; *Herb. Mackay*. On banks by the roadside between the Baily Lighthouse and Sutton, Howth; *D. M.* Sandy fields near Kilbarrock Church and Howth; *Mackay Cat. Ir.* Waste and sandy grounds near Dublin, as well as about Cork, Belfast, &c.; *Flor. Hib.*—12. Waste ground at the termination of the (Cave Hill) tramway, Carrickfergus Road; *Flor. Belf.* The plant appeared in this station after the making of the Ballymena Railroad; *Mr. S. A. Stewart*.

3. \* *S. squalidus* (Linn.)—*Wall Ragwort*.

Districts 1 2 - - - - -

Is plentiful and thoroughly naturalized on walls and roofs of houses in and about Cork; and Mr. Carroll describes it as increasing and well established at Kinsale and Bandon also, but it does not appear to have spread to wild-looking localities. Professor Murphy believed that it had escaped from the old Botanic Garden at Cork. It was not known as wild to Mr. J. Drummond in 1820. Mr. Carroll has sent to us, from Cork, a *Senecio* allied to *S. squalidus*, but with much smaller flowers; it may be a hybrid.

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

Districts 1 2 3 4 5 6 7 8 9 10 11 12

Lat. 51°–56°. Throughout Ireland.

Type in Great Britain, British.

Heaths, moors, and sandy banks; frequent. *Fl.* July to September.

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

District - - - - 5 - - - - -

Lat. 53°-54°. East of Ireland—Dublin and Louth only.

Type in Great Britain, English.

Hedges and way-sides, banks, pastures, &amp;c. ; very local.

*Fl.* July, August.5. Frequent on the north and south side of Dublin; *Flor. Hib.* Raheny; Coolock; Santry; Ballymun; Finglas; *Ir. Flor.* Between Drogheda and Dundalk, Louth; *D. M.*6. *S. Jacobæ* (Linn.)—*Common Ragwort*.

Districts 1 2 3 4 5 6 7 8 9 10 11 12

Lat. 51°-56°. Throughout Ireland.

Type in Great Britain, British.

Waste places, way-sides, pastures, &c. ; common. *Fl.*

July to September.

7. *S. aquaticus* (Huds.)—*Marsh Ragwort*.

Districts 1 2 3 4 5 6 7 8 9 10 11 12

Lat. 51°-56°. Throughout Ireland.

Type in Great Britain, British.

Watery places, marshes, and wet pastures; common. *Fl.*

July, August.

8 \* *S. saracenicus* (Linn.)—*Broad-leaved Groundsel*.

Districts 1 2 3 - - - - - 12

Waste places near houses, and banks of rivers; very rare, and we believe introduced in all its localities.

1. Woods at Bantry; *Drummond*. Road-side near Cahirciveen, Kerry, abundant; *Mr. L. Ogilby*.—2. On the river bank at Ballyboy, near Clogheen, Tipperary; *Miss S. Grubb*.—3. In two places near Stradbally, Queen's County (an escape), *Mr. T. Chandlee*.—12. On the banks of a ditch at Kirkeel, Down; *Ir. Flor.* [Balloch, County Down]; *Flor. Ulst.* (excluded as not indigenous).

The plant is frequently cultivated in cottage gardens as a styptic.

## SAUSSUREA D C.

1. *S. alpina* (D C.)—*Mountain Saw-wort*.

District 1 - - - - -

Lat. 51°-53°. South-west of Ireland—Kerry only.

Type in Great Britain, Highland.

Wet alpine cliffs; very rare. *Fl.* August.1. Cliffs near the summit of Brandon mountain! Kerry;  
*Flor. Hib.* Horse's Glen, Mangerton; *I. C.*

At about 2000 feet (D. M.).

## CARLINA Linn.

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

Districts 1 2 3 4 5 ✓ 6 7 8 - - - 12

Lat. 51°-56°. From South to North of Ireland.

Type in Great Britain, English, inclining to British.

Gravelly banks, dry pastures, and cliffs; local. *Fl.* July to September.

1 and 2. In South and North Cork; *I. C.*; rather rare; *Flor. Cork*.—2. In Waterford; *I. C.* Near Clonmel; *Miss S. Grubb*.—3. In Kilkenny; *Rev. S. Madden*. Stradbally, Queen's County; *Mr. T. Chandler*.—4. Abundant on the coast of Wicklow; *D. M.* Enniskerry; *A. G. M.*—5. Chapelizod, Baldoyle, &c.; *Wade Dubl.* Plentiful on Howth, Portmarnock, &c.; near Dublin; *Flor. Hib.* Finglas quarries and Knockmaroon Hill; *Ir. Flor.* Ballitore and Portersize, Kildare; *I. C.*—6. Castle Taylor, Galway; *A. G. M.*—7. Knock Ion, West Meath; *Miss E. Reynell*. Great Arran Island; *Mr. W. Andrews*.—8. Hill of Doon, Galway; *Prof. Melville*.—12. Ballycastle, Antrim; *Flor. Ulst.*

[*Carlina racemosa* (Linn.). A single specimen was found by Mr. W. Andrews in Great Island of Arran, in Galway Bay, where the plant was no doubt introduced.—London Journal of Botany, iv., 569.]

## ARCTIUM Linn.

1. *A. majus* (Sehk.)—*Great Burdock*.*A. Lappa* var. Bentham.

District 1 - - - - -

Lat. 51°-52°. South of Ireland.

Type in Great Britain, probably English.



Waste places; apparently very rare in Ireland. *Fl.* July, August.

1. Clonakilty, Cork; *C. C. B.* (in A. N. H.)

The specimens which we have seen, under the name of "*A. majus*," from the neighbourhood of Belfast, collected by Mr. Tate and Mr. Stewart, appear to belong to *A. intermedium*. They are certainly not *A. majus*.

2. *A. minus* (Sehk.)—*Lesser Burdock*.

*A. Lappa*, Bentham.

Districts 1 2 3 4 5 6 7 8 - 10 11 12

Lat. 51°–56°. Throughout Ireland.

Type in Great Britain, British.

Waste places, waysides, hedges, and thickets; common. *Fl.* August.

*A. intermedium*, Lange. *A. pubens*, Bab. Man.

Districts 1 2 - - - 6 - - 9 - - 12

1 and 2. Frequent about Cork; *I. C.* Abundant through a great part of the south of Ireland, where *A. minus* is scarce; *C. C. B.*—9. Near Foxford, Mayo; *A. G. M.*—12. About Belfast, and other places in Antrim; *D. M.*

Probably not uncommon, but likely to be passed over as a stouter form of *A. minus*.

### CENTAUREA Linn.

1. *C. nigra* (Linn.)—*Black Knapweed*.

Districts 1 2 3 4 5 6 7 8 9 10 11 12

Lat. 51°–56°. Throughout Ireland.

Type in Great Britain, British.

Fields and banks; common. *Fl.* June to September.

*Var. β radiata*.

Rare.—1. Base of Carig Mountain, near Kenmare; *Flor. Hib.* (under *C. Jacea*).—1 and 2. In south and north Cork; *I. C.*—3. Near Stradbally, Queen's County; *Mr. T. Chandlee*.—4. Near Baltinglass, Wicklow; *Mr. T. Chandlee*.—12. By the Agivey river, near Garvagh, Derry, very rare; *D. M.* In a field near Belfast; *Flor. Hib.* (under *C. Jacea*). Mr. Carroll has noticed it in several parts of the south of

Ireland, and considers it certainly a form of *C. nigra*. Probably the *C. Jacea* of "*Flora Hibernica*" is nothing more than the same variety.

2. *C. Cyanus* (Linn.)—*Corn Bluebottle*.

Districts 1 2 - 4 5 - - - - 10 11 12

Lat. 51°-56°. From South to North of Ireland.

Type in Great Britain, British.

Cultivated land; rather rare, and local. *Fl.* June to Aug.

Rare about Cork, and considered not wild by Mr. Carroll. Often sown with flax and other crops; it has not been observed in the west of Ireland.

Ranges from sea-level to 600 feet on Ben Evenagh.

3. *C. Scabiosa* (Linn.)—*Greater Knapweed*.

Districts 1 2 3 4 5 6 - 8 - - - -

Lat. 51°-54°. South and Middle of Ireland.

Type in Great Britain, British, inclining to English.

Cultivated fields, banks, and waste places; local, and rare.

*Fl.* July to September.

1 and 2. Rather rare near Cork; *Flor. Cork*. But occurs in both divisions of the county; *I. C.*—2. In Waterford; *I. C.* Near Clonmel; *Miss S. Grubb*.—3. Ayresfield, &c., Kilkenny; *Rev. S. Madden*. Jenkinstown, Kilkenny; *Mr. P. Duffy*. Kilmacow; *Mr. T. Chandlee*. Stradbally, Queen's County; *Mr. T. Chandlee*.—5. Chapelizod; Lucan; Glasnevin; *Wade Dubl.* Finglas, Glasnevin, Santry, Coolock, &c., near Dublin; *Ir. Flor.* Banks of the Dodder, and near Chapelizod; not uncommon near Dublin; *Mackay Cat.* *Ir.* Augherane; Kilgoing; Foxhill, near Ballitore; *I. C.*—6. Near Castle Taylor, Galway; *A. G. M.* Fanora, near the coast of Clare; *Rev. T. Warren*. Near Tuam; *Wade Gallovid*.—8. Near the town of Galway; *Prof. Melville*. Usually in cultivated fields, and on banks adjacent, preferring a calcareous soil. Possibly should be classed as a colonist (see "*Cybele Britannica*," Vol. iv., p. 119).

[*C. solstitialis* (Linn.) occurred, in 1821, in a sandy field at Portmarnock, where it has since become extinct, and was

probably introduced with the seeds of Lucerne; *Flor. Hib.* A single plant was once found by Mr. Drummond among Lucerne, near Cork.]

[“*C. Jacea*” of “*Flora Hibernica*” was apparently the radiant form of *C. nigra*, Linn.]

*CARDUUS* Linn.

1. *C. nutans* (Linn.)—*Musk Thistle.*

Districts 1 2 - - (5) 6 - - - - (12)

Lat. 51°–54°. West of Ireland chiefly.

Type in Great Britain, English.

Fields, banks, way-sides, and waste places; very rare. *Fl.* June to August.

1. Near Castletown, Bearhaven; *Flor. Cork.*—2. Little Island, Cork, sparingly; *Drummond* and *I. C.*—5. In a gravelly field at Castle Dillon, parish of Straffan, Kildare, sparingly; *Mr. J. Douglas* (perhaps introduced).—6. By the road-side between Gort and Corrofin, sparingly; *Flor. Hib.* In north Clare; *Mr. F. J. Foot.* Near Kiltartan, Galway; *Mr. C. Carter.* Near Castle Taylor, Galway, in some plenty; *A. G. M.* Near the town of Kilonan, in the Great Isle of Arran; *Mr. L. Ogilby.*—12. Banks of the railway two miles from Carrickfergus; *Flor. Ulst.* (perhaps introduced). A single plant by the Drumgavna river, Derry, near a place where flax was steeped; *D. M.*

2. *C. crispus* (Linn.)—*Wetted Thistle.*

*C. acanthoides* (Linn.), Brit. Flor., *Flor. Hib.*

Districts - - - - 5 - 7 - - 10 11 12

Lat. 53°–56°. East, Centre, and North of Ireland.

Type in Great Britain, British, inclining to English.

Fields, banks, and waste places; rare. *Fl.* June to Aug.

5. Roadsides near Ballytore; *Mr. T. Chandlee.* Finglas; Glasnevin; Drumcondra; Ballygall; and Cardiff's-bridge; *Ir. Flor.* Fields near Ball's-bridge, Dublin; *Mackay Cat., Ir.* Dundalk and Lambeg; *Flor. Ulst.*—7. In West Meath, close to the borders of Longford; *Mr. M. P. Edgeworth.*—10. Cremorne, Monaghan; *Flor. Ulst.*—11. Knockglass,

Malin; *Flor. Ulst.* Roadsides near Culdaff, Donegal; *Mr. C. Moore*.—12. Frequent about Moneymore, Derry; roadside at Milltown, Down; near Belfast; at Antrim; *Flor. Ulst.* Quarry-hill, Moira; *Mr. S. A. Stewart*. Not rare in sandy fields at Magilligan, Derry; Curran of Larne, and other places in Antrim; *D. M.*

3. *C. tenuiflorus* (Curt.)—*Slender-flowered Thistle*.

*C. pycnocephalus* (Jacq.), Bentham.

Districts 1 2 3 4 5 6 7 - - - 11 12

Lat. 51°–56°. From South to North of Ireland.

Type in Great Britain, English, inclining to British.

Waste sandy places; frequent near the coast; rare inland.  
*Fl.* June to August.

Professor Melville has seen it far inland, growing on a hill to the west of Edenderry, King's County.

4. *C. lanceolatus* (Linn.)—*Spear Thistle*.

*Cnicus lanceolatus* (Willd.), Brit. Flor. and Flor. Hib.

Districts 1 2 3 4 5 6 7 8 9 10 11 12

Lat. 51°–56°. Throughout Ireland.

Type in Great Britain, British.

Pastures and wastes; common. *Fl.* July, August.

From sea-level to 1100 feet on the basaltic hills of Derry.

5. *C. arvensis* (Curt.)—*Creeping Thistle*.

*Cnicus arvensis* (Hoffm.), Brit. Flor. and Flor. Hib.

Districts 1 2 3 4 5 6 7 8 9 10 11 12

Lat. 51°–56°. Throughout Ireland.

Type in Great Britain, British.

Fields and way-sides; common. *Fl.* July, August.

6. *C. palustris* (Linn.)—*Marsh Thistle*.

*Cnicus palustris* (Willd.), Brit. Flor. and Flor. Hib.

Districts 1 2 3 4 5 6 7 8 9 10 11 12

Lat. 51°–56°. Throughout Ireland.

Type in Great Britain, British.

Wet meadows and marshy places; common. *Fl.* July, August.

7. *C. pratensis* (Huds.)—*Bog Thistle*.*Cnicus pratensis* (Willd.), Brit. Flor. and Flor. Hib.

Districts 1 2 3 4 5 6 7 8 9 10 11 12

Lat. 51°–56°. Throughout Ireland.

Type in Great Britain, English.

Boggy pastures; frequent. *Fl.* June, August.

Rare about Cork, and on the east side of Ireland; plentiful in the north and west.

Ranges from about sea-level to 900 feet on Slieve League (*Flor. Ulst.*)*Var. β C. Forsteri.* (Smith.)Very rare.—12. In Garvagh demesne, and in wet meadows by the side of the Bann below Jackson Hall, Coleraine, Derry; *D. M.* This is now generally considered a hybrid between *C. pratensis* and *C. palustris*.[*C. eriophorus* (Linn.) is recorded as having been gathered near Derry by Mr. John Nuttall (*Mackay Cat.* and *Flor. Hib.*), but was not to be found by *D. M.* in 1834 and 1835.]*SILYBUM* Gaert.1. \* *S. Marianum* (Gaert.)—*Milk Thistle*.*Carduus Marianus* (Linn.), Brit. Flor., Flor. Hib. &c.

Districts 1 2 3 4 5 - - 8 - 10 - 12

Waste places and cultivated ground, usually near houses and ruins; rare, and uncertain in its localities. *Fl.* June, July.

Chiefly in the southern and eastern counties.

1. and 2. Rare in Cork; *Flor. Cork.*—2. Waterford; *I. C.* Near Clonmel; *Miss S. Grubb.*—3. Lacken Hill, Kilkenny; *Rev. S. Madden.* , Rocks of Dunamase, Queen's County; *Mr. T. Chandlee.*—5. Warren House, on the way to Howth; *Wade Dubl.*—Baldoyle; Howth; Kilbarrock Church; *Flor. Hib.* White-church above Roebuck; sandy fields at Rush; *Ir. Flor.* Castle-Dermot near Ballitore; *Mr. J. Morrison.*—8. On the beach, near Galway; *Prof. Melville.*—10. In churchyards, and near houses in Armagh; *A. G. M.*—12. Between Newtonards and Grey-Abbey; between Larne and Ballyclare; *Flor. Ulst.*

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

Districts 1 2 3 4 5 6 7 8 9 10 11 12  
 Lat. 51°–56°. From South to North of Ireland.  
 Type in Great Britain, British.

Bushy places and cultivated land; frequent. *Fl.* July, August.

Rather local in Ulster (*Flor. Ulst.*)

*CICHORIUM* Linn.1. ‡ *C. Intybus* (Linn.)—*Chicory*.

Districts 1 2 - 4 5 - - - - - 12  
 Lat. 51°–55°. South and East of Ireland. Not native.  
 Type in Great Britain, English, inclining to British.

Cultivated land, banks, and waste places; rare. *Fl.* July, August.

Rare, and not indigenous in the South of Ireland.

1 and 2. In fields about Cork occasionally; *I. C.*; Little Island; *Drummond*. Corn-fields near Fermoy; *Mr. T. Chandlee*. In Waterford, near Clonmel; *Miss S. Grubb*.—4. Fields on the Murrrough of Wicklow; *D. M.*—5. In waste places near the new jail at Kilmainham, Dublin [formerly] *Threlkeld*. On banks near the sea shore, a little south of Malahide; Dublin; *D. M.* Plentiful near Balbriggan; *Flor. Hib.* In the County of Kildare; *Mr. F. Haughton*. On the lands about Scribblestown, abundantly; *Wade Dubl.*; and along ditches and road-sides between Drogheda and Turfeekin, Louth; *Ir. Flor.*—12. Squire's Hill; Sydenham; reclaimed land near Jennymount; *Flor. Ulst. Suppl.*, but excluded by 'Dr. Dickie as not indigenous.

The most wild-looking localities are on the east coast; but this is a plant which long continues in fields where it has once been cultivated, and spreads to the adjacent banks, especially on a sandy soil; and appears to prefer the vicinity of the sea.

## HYPOCHÆRIS Linn.

- 1.
- H. radicata*
- (Linn.)—
- Long-rooted Cat's-ear.*

Districts 1 2 3 4 5 6 7 8 9 10 11 12

Lat. 51°–56°. Throughout Ireland.

Type in Great Britain, British.

Meadows and pastures, waste ground, &c.; common. *Fl.*  
July, August.

[*H. glabra* (Linn.)—Several localities are given by Mackay in his "*Catalogue of Rare Plants*," but the species is omitted in "*Flora Hibernica*." It is included doubtfully in the "*Flora of Cork*," but with no station, except one of those mentioned by Mackay. Mr. J. Sullivan reports having found it on limestone rocks at Little Island, Cork, in 1853, but in the absence of further evidence we think it better to exclude it for the present.]

## THRINCIA Roth.

- 1.
- T. hirta*
- (D C.)—
- Hairy Hawkbit.*

*Leontodon hirtus* (Linn.) Bentham.

Districts 1 2 - 4 5 6 - 8 - - - -

Lat. 51°–54°. South and Middle of Ireland.

Type in Great Britain, English.

Pastures; frequent in the south and middle of Ireland.  
*Fl.* July to September.

The range of this species is very imperfectly known, but it is probably not uncommon in the southern half of Ireland. Mr. Carroll finds it in the counties of Cork and Waterford. It is not unfrequent near Dublin, extending as far north as Mount Oriel, in Louth (*Ir. Flor.*); and in the west it has been noticed in Clare (*D. M.*); at Garryland, Galway (*A. G. M.*); Portumna (*D. M.*); near the town of Galway (*Professor Melville*); and has no doubt been overlooked in many other localities.

## APARGIA Schreb.

- 1.
- A. hispida*
- (Willd.)—
- Rough Hawkbit.*

*Leontodon hispidus* (Linn.) Bentham.

Districts 1 2 3 4 5 - - 8 9 - 11 12

Lat. 51°–56°. From South to North of Ireland.

Type in Great Britain, English, inclining to British.

Pastures and banks, mostly on a calcareous soil; rather rare. *Fl.* June, August.

1. At Killarney; *C. C. B.*; Castle Gregory, Kerry; *D. M.*—1 and 2. Rather rare about Cork; *Flor. Cork*. Near Fermoy; *Mr. T. Chandlee*.—3. Near Kilmacow, Kilkenny; *Mr. T. Chandlee*.—4. Murrough of Wicklow; *D. M.*—5. Abundant at Portmarnock; *Mackay Cat. Ir.* Ballitore, Kildare; *I. C.*—8. Near the town of Galway, but rather rare; *Prof. Melville*.—9. Near Hollymount, Mayo, sparingly; *A. G. M.*—11. In the extreme north of Ulster, near Malin, &c.; *Flor. Ulst.*—12. Very rare near Belfast; *Mr. S. A. Stewart*. Banks of the Lagan; *Flor. Ulst.* Ballymaghaw; *Flor. Belf.* Magilligan, and other places in Derry; *D. M.*

With a wider range than *Thrinicia hirta*, the present species appears to be less abundant. Near Galway Professor Melville considers it much the scarcer of the two.

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

*Leontodon Autumnalis* (Linn.) Bentham.

Districts 1 2 3 4 5 6 7 8 9 10 11 12  
Lat. 51°–56°. Throughout Ireland.

Type in Great Britain, British.

Pastures and heaths; common. *Fl.* August, September.

*Var. β A. Taraxaci* (Smith.)

On mountains.—1. Magillicuddy's Reeks, Brandon; *Mackay Rar.* And other mountains in Kerry; *Flor. Hib.* Galtymore, Tipperary; *Mackay Rar.*—4. On Lugnaquilla, Wicklow; *Mr. J. Ball*.—9. Ben Bulbin; *Flor. Ulst.*—11. Errigal and Island of Innistrathull; *Flor. Ulst.*—12. Slieve Donard; Cave Hill; Black Mountain; *Flor. Ulst.* On several of the basaltic mountains of Derry; *D. M.* From sea-level (*A. autumnalis*) to 1200 feet on Ben Evenagh (*var. Taraxaci*); *D. M.*

*TRAGOPOGON* Linn.

1. *T. pratensis* (Linn.)—*Yellow Goat's-beard*.

Districts - 2 - 4 5 6 - 8 9 - - -  
Lat. 51°–55°. South and Middle of Ireland.

Type in Great Britain, British, inclining to English.

Pastures and sandy banks; rather rare. *Fl.* June, July



2. Rare near Cork; *Flor. Cork*, and only seen by Mr. J. Sullivan in the northern division of the county.—2. Near Clonmel and Carrick-on-Suir; *Miss S. Grubb*.—4. Murrough of Wicklow; *D. M.*—5. Near Moone and Ballytore; *I. C.* In various places near Dublin! *Wade Dubl.* and *Flor. Hib.* (*T. pratensis*). Oldcastle, Meath; *Flor. Hib.* About Mount Oriel; Strigna and Tiernan's Hill, Louth; *Ir. Flor.*—6. Fields near Limerick; *Prof. Harvey (T. pratensis)*. At Garryland, near Gort, Galway; *A. G. M.*—8. Near the town of Galway (*T. minor*); *Prof. Melville*.—9. At Hollymount, Mayo, sparingly; *A. G. M.*

As far as we can ascertain, the two forms *T. minor* (Fries.) and *T. pratensis* (Linn.), are about equally frequent in Ireland.

[*T. porrifolius* (Linn.) *Purple Goat's-beard*. Near Lixnaw, on the banks of the River Brick; *Smith's "Kerry."* Once or twice found near Cork, but only as an outcast from gardens; *Flor. Cork* and *Mr. J. Sullivan*. Railway banks, Sydenham; *Flor. Belf.* Churchyard of Glenarm; *Flor. Ulst.* No doubt accidentally introduced, and we believe not permanent.]

[*Picris hieracioides* (Linn.). Portmarnock sands, sparingly; *Mackay Cat. Ir.* Sandy fields at Portmarnock; *Flor. Hib.* The plant has not been lately found in this station, where (with many other aliens) it was probably introduced, nor has the supposed locality "near Cork" been confirmed by recent observation.]

#### HELMINTHIA Juss.

1. *H. echioides* (Gaert.)—*Bristly Ox-tongue*.

Districts - 2 - - 5 - - - - -  
 Lat. 51°-54°. South and East—Cork; Dublin; and Meath.  
 Type in Great Britain, English.

Hedge-banks, borders of fields, &c.; rare and very local.  
*Fl.* July to September.

2. Fields in the Little Island, Cork; *Drummond*. Near Bury's bridge, Factory hill; *Flor. Cork*. Occasionally in North Cork, but very rare, and perhaps introduced; *I. C.*—  
 5. "Frequent under hedges, and above the barracks on a

brow to the westward ;" *Threlkeld*. Between Beggar's Bush and Sandymount, &c. ; *Wade Dubl.* Knockmaroon hill ; Cardiff's bridge ; Windy Harbour ; Howth ; Roebuck ; White Church ; Raheny and Kilbarrock ; *Ir. Flor.* Plentiful by the mill-stream between Donnybrook and Miltown ; not unfrequent near Dublin, and occasionally along the coast as far north as Drogheda ; *Flor. Hib.* Road-side banks between Swords and Balbriggan ; *D. M.*

### LACTUCA Linn.

#### 1. *L. muralis* (D C.)—*Wall Lettuce*.

*Prenanthes muralis* (Linn.) *Flor. Hib.*

District - - - 4 5 - - - - -

Lat. 53°-54°. East of Ireland—Wicklow and Louth only.

Type in Great Britain, English.

Woods, banks, and old walls ; very rare. *Fl.* July.

4. Road-side leading from Lara Barracks to Clara ; Wicklow ; *the late Mr. Johnston*.—5. Abundant in the woods at Collon, Louth ; *Wade Rar.* and *Flor. Hib.* (It has escaped from the old school garden to the neighbouring walls and banks at Ballitore, Kildare ; *I. C.*)

*Obs.*—*L. virosa* (Linn.) is mentioned by Mackay (*Addit.*) as having been found between Blackrock and Kingstown, but the specimen preserved in his Herbarium appears to belong to the Garden Lettuce (*L. sativa*).

### LEONTODON Linn.

#### 1. *L. Taraxacum* (Linn.)—*Dandelion*.

*Taraxacum officinale* (Wigg.) *T. Dens-leonis* (Desf.) Benth.

Districts 1 2 3 4 5 6 7 8 9 10 11 12

Lat. 51°-56°. Throughout Ireland.

Type in Great Britain, British.

Meadows, pastures, waste places ; common. *Fl.* April to September.

*Var. β* *T. udum* (Jordan).

6. By the turloughs near Coole Park, Galway ; and (9) near Foxford, Mayo ; *A. G. M.* This variety appears just intermediate between the typical form and *var. γ*. It has

the runcinate leaves of the former, but the involucreal scales are nearly always erect-patent, though not so closely adpressed as in *Var. γ*.

*Var. γ L. palustre* (Smith).

In boggy and marshy meadows, rather rare. 1. Valentia, Kerry; *Rev. S. Madden*.—1 and 2. Ballyphehane bog, &c., near Cork; *Flor. Cork*.—4. Abundant on rocks in the bed of the Dargle; *Flor. Hib.*—5. Wet fields behind Fuller's-court, Ballitore; *I. C.* Marshy field near Newcastle-Lyons, Dublin; *A. G. M.*—9. Ben Bulbin; *Flor. Ulst.*—12. Island of Rathlin; *Flor. Ulst.* Not rare on wet moors and sides of mountains in Antrim; *D. M.*

From sea-level to 1100 feet on Ben Evenagh (*D. M.*)

### SONCHUS Linn.

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

Districts 1 2 3 4 5 6 7 8 9 10 11 12  
Lat. 51°–56°. Throughout Ireland.

Type in Great Britain, British.

Cultivated fields, banks, and waste ground; common. *Fl.* June to August.

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

*S. oleraceus var.* Bentham.

Districts 1 2 3 4 5 6 - 8 9 - - 12  
Lat. 51°–56°. Throughout Ireland.

Type in Great Britain, British.

Cultivated land, hedge-banks, and waste places; frequent. *Fl.* June to August.

Less common apparently than *S. oleraceus*, but has, no doubt, been overlooked in many places.

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

Districts 1 2 3 4 5 6 7 8 9 10 11 12  
Lat. 51°–56°. Throughout Ireland.

Type in Great Britain.

Corn-fields, also in waste ground near the sea; common. *Fl.* August, September.

## CREPIS Linn.

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

Districts 1 2 3 4 5 6 7 8 9 10 11 12

Lat. 51°–56°. Throughout Ireland.

Type in Great Britain, British.

Banks, walls, hedges, and dry pastures; frequent. *Fl.*  
June, July.

Rather local in Ulster and Derry.

2. *C. <sup>taraxacifolia (Shuil)</sup> biennis* (Linn.)—*Rough Hawk's-beard*.

District - - - - 5 - - - - - - - - - -

Lat. 53°–54°. East of Ireland—Dublin only.

Type in Great Britain, Germanic.

Hedge-banks and borders of fields; rare, and very local.  
*Fl.* June, July.5. Near Baldoyle! Knockmaroon-hill, &c.; *Wade Dubl.*  
Phoenix Park; Portmarnock; Kilbarrock! and Howth!  
*Ir. Flor.* Plentiful at Kilbarrock, Baldoyle, Portmarnock,  
and other places on the northern side of Dublin; *Flor. Hib.*  
Chapelizod; *A. G. M.* By the tramway between Kingstown  
and Dalkey, sparingly; *A. G. M.*3. *C. paludosa* (Moench.)—*Marsh Hawk's-beard*.

Districts 1 2 - 4 5 - - 8 9 10 11 12

Lat. 51°–56° North of Ireland chiefly.

Type in Great Britain, Scottish, inclining to Highland.

Marshy meadows, and wet rocky places; frequent. *Fl.*  
July to September.1. At Ballybog, not far from Blandford; *Smith's "Kerry."*  
—1 and 2. Rare in Cork; *Flor. Cork.* But occurs in both  
divisions of the county; *I. C.* and *Mr. J. Sullivan.*—2. At  
Coolrue, near Fermoy, but very rare; *Mr. T. Chandlee.*—  
4. Wicklow Mountains, frequent; *D. M.*—5. Frequent  
near Ballytore, Kildare; *I. C.* Kilmashogue; *Wade Dubl.*  
Santry; Dublin Mountains; Scribblestown, at the foot of  
Mount Oriel, Louth; *Ir. Flor.* Near Straffan, Kildare;  
*Mr. J. Douglas.* Kelly's Glen, &c., not rare, in the Dub-  
lin Mountains; *D. M.*—8. By Lough Cullin, &c., Mayo;

*A. G. M.*—On Nephin, at 800 feet; *Flor. Ulst.*—9. Hollymount and Foxford, Mayo; *A. G. M.*—10. Common in the glens of Tyrone; *Admiral Jones.*—11. Near Killybegs, &c.; *A. G. M.* Frequent in Donegal; *Prof. E. Murphy.*—12. Tollymore Park; *Mr. S. A. Stewart.* Newtownards Glen; *Mackay, Cat. Ir.* Black Mountain; *Flor. Belf.* Colin Glen; *Crawfordsburn, &c.*; *Flor. Ulst.* Common by the river-sides in Derry; *D. M.*

From 100 feet to 1200 on Clontygearagh (*D. M.*)

[*Crepis succisæfolia* (Tausch), (*Hieracium molle*, Jacq.) is included in "*Flora Hibernica*," but we believe that some species of *Hieracium* was mistaken for it.]

### HIERACIUM\* Linn.

#### 1. *H. Pilosella* (Linn.)—*Mouse-ear Hawkweed.*

Districts 1 2 3 4 5 6 7 8 9 10 11 12

Lat. 51°–56°. Throughout Ireland.

Type in Great Britain, British.

Dry banks, pastures, and rocky places; frequent. *Fl.* May to July.

From sea level to 1300 feet on Ben Bradagh, Derry; *D. M.*

[*H. aurantiacum* (Linn.), was gathered by Mr. C. Moore on a wall near Ards House, Donegal, no doubt an escape from cultivation.]

#### 2. *H. anglicum* (Fries.)

Districts 1 - - - - - 8 9 - 11 12

Lat. 51°–56°. West and North of Ireland.

Type in Great Britain, Highland.

Rocky places on mountains; local. *Fl.* July, August.

1. Horse's Glen, Mangerton, Kerry; *I. C.*—8. Rocks in Connemara! *D. M.*—9. Ben Bulbin, Sligo (*var. amplexicaule* Backh.), *Bab. Man.*—11. Gap of Urris, Donegal; *Mr. C. Moore.*—12. Coast of Antrim! and rocks at Magilligan, Derry! *D. M.* Rocks at Glenariff and at Garron Head, Antrim; *Mr. S. A. Stewart.* Cushendall (*D. M.*) *C. C. B.*

\*. In this genus the mark of certainty (!) is placed after the localities from which specimens have been authenticated by Mr. Backhouse. The *Hieracia* of Ireland are very imperfectly known.

3. *H. iricum* (Fries).

Districts 1 - - - - 6 - 8 9 - 11 12

Lat. 51°-56°. West and North of Ireland.

Type in Great Britain, Highland.

Rocky places and on mountains; local. *Fl.* July, August.

1. Bantry Bay; *Bab. Man.* Sugarloaf Mountain, Glenariff; *I. C.*—6. Rocky pasture west of Castle Taylor, Galway! *A. G. M.*—8. On the Twelve Pins of Bennabola, and on Eagle Mountain, Connemara; *Backhouse.* 9. Ben Bulben! Sligo; *D. M.*—11. Side of Muckish, Donegal; *Mr. C. Moore.*—12. Glenariff! and Garron Head! Antrim; *D. M.*

4. *H. pallidum* (Fries).

Districts 1 - - - - - 8 - - - - -

Lat. 51°-54°. West of Ireland.

Type in Great Britain, Highland, inclining to Scottish.

Rocky places or mountains; rare? *Fl.* July, August.

1. Killarney; *Backhouse.* Kenmare (Dr. Taylor); *C. C. B.* Donemark Waterfall, near Bantry (I. C.); *C. C. B.*—8. Rocks in Connemara! *D. M.*

5. *H. lasiophyllum* (Koch.)

Districts - - - - - 9 - - 12

Lat. 54°-56°. North of Ireland.

Type in Great Britain, Highland.

Mountains and cliffs, rare. *Fl.* July, August.

9. Ben Bulben, Sligo? *Backhouse.*—12. Steep cliffs south from Glenarm, Antrim; *Flor. Ulst.* Glenariff, Antrim (D. M.); *C. C. B.*

6. *H. murorum* (Linn.)

Districts - - - - - 11 12

Lat. ?-56°. North of Ireland.

Type in Great Britain, British.

Banks and rocks; local and rare. *Fl.* June to August.

11. Donegal; *Mr. C. Moore*—12. Abundant on the basaltic hills of Derry; Tor Head! and rocks on the coast of Antrim! *D. M.* Cave Hill; White-rock; Knockagh; frequent

in Ulster; *Flor. Ulst.* Probably occurs in many other places in the north and west of Ireland. The "*H. murorum*" recorded by Drummond as found on rocks near Bantry, was probably *H. iricum* or *H. pallidum*.

From 600 to 1300 feet in Derry.

7. *H. caesium* (Fries).

District - - - - - 12

Lat. 55°-56°. North of Ireland.

Type in Great Britain, Scottish.

Rocky places in mountainous districts; probably not rare.

*Fl.* June to August.

12. Fair Head, Antrim; *C. C. B.*; and probably to be found in many other localities.

8. *H. vulgatum* (Fries).

*H. sylvaticum* (Smith), *Flor. Hib.*

Districts - - - 4 5 - - - 11 12

Lat. 53°-56°. East and North of Ireland.

Type in Great Britain, British.

Banks, rocks, river sides, &c.; not unfrequent? July to September.

4. Powerscourt Waterfall; and Devil's Glen, Wicklow;

*Flor. Hib.*—5. Banks of the Liffey, above Leixlip; *A. G. M.*—

11. In Donegal, about Dunkineely, &c., frequent; *A. G. M.*—

12. Abundant in Derry; and frequent in Antrim; *D. M.*

River bank at Bryansford, Down; and "Dog's-leap,"

Newtown-limavady, Derry; *Flor. Ulst.* Probably not unfre-

quent in mountainous districts.

9. *H. gothicum* (Fries).

Districts 1 - - - 5 - - 8 - - - 12

Lat. 51°-56°. West, East, and North of Ireland.

Type in Great Britain, Highland.

Heathy and rocky places; rare. *Fl.* July to September.

1. Rocks at Donemark Falls, Bantry; *I. C.*—5. Head of

Glenmalure, Wicklow (*I. C.*); *C. C. B.*—8. Connemara;

*Backhouse.*—12. Glenballyeamore, near Carrickfergus!

Antrim; *D. M.* Glenariff, near Cushendall, Antrim (Mr.

Stewart); *C. C. B.*

10. *H. prenanthoides* (Vill.)

Districts - - - - - 10? - 12

Lat. 54°-56°. North-east of Ireland.

Type in Great Britain, Highland.

Rocky places and river sides; rare. *Fl.* July, August.

10? River bank near Cookstown, Tyrone (Rev. W. T. Whan); *Flor. Ulst.*—12. Near Garvagh! Meadows near Donald's hill, parish of Bovevagh! Derry; and not unfrequent in the Glens of Antrim; *D. M.* Glens about Belfast (Mr. Templeton); Cave Hill (Mr. Millen); *Flor. Ulst.* Mr. Stewart finds only *H. crocatum* in the above localities, near Belfast.

11. *H. strictum* (Fries).

Districts - - - 4 - - - - - 12

Lat. 52 or 53°-56°. East and North-east of Ireland.

Type in Great Britain, Highland.

Mountain glens and rocky places; rare. *Fl.* July, Aug.

4. Head of Glenmalure, Wicklow; *Backhouse.*—12. Garron Head! Antrim; and Garvagh, Derry; *D. M.* Tollymore Park, Down; *Mr. S. A. Stewart.*

12. *H. umbellatum* (Linn.)

District 1 - 3 4 - - - 8 - - - 12

Lat. 51°-56°. From South to North of Ireland.

Type in Great Britain, British, inclining to English.

Banks, woods, and rocky places, local, and rather rare. *Fl.* July to September.

1. Near Dunkerron, Kerry (*var. Taylori*), *Backhouse.* Galway, river near Killarney; *C. C. B.*—3. At Granagh, Kilkenny; *Mr. T. Chandlee spec.*—4. Devil's Glen! and other places in Wicklow; *For. Hib.* Ballyarthur, along the river side; Glen-cree, between Enniskerry and Lough Bray; *Ir. Flor.*—8. On the shores and islands in Lough Corrib (near to *var. Taylori*), *A. G. M.* Near Maam, Galway; *C. C. B.* Shores of Lough Cullin, Mayo; *A. G. M.*—12. Tullamore Park; *Flor. Ulst.* Rocks on Ben Evenagh, Derry; Glenariff, Antrim; and (*var. filifolium*) on Harper's Island, Lough Neagh; *D. M.*

Ranges from about sea level to 1000 feet on Ben Evenagh.



13. *H. crocatum* (Fries).

District - - - - - 8 - - - 12

Lat. 53°-56°. North-east of Ireland.

Type in Great Britain, Highland.

Mountain glens, cliffs, and rocky places on mountains, rare. *Fl.* July August.

8. Ballinahinch, Connemara; *Backhouse*.—12. Glen-bally, Carrickfergus; *Backhouse*. Not unfrequent, &c. Not unfrequent in the glens of Antrim! *D. M.* Steep cliffs at Cave Hill, Garron Head and Glenariff, Antrim; Ben Evenagh, Derry; *Mr. S. A. Stewart spec.*

14. *H. corymbosum* (Fries).

*H. corymbosum*, *Backh.*, and *H. rigidum*, *Backh.*

Districts - - - 4 - - - - - 12

Lat. 53°-56°. East and North-east of Ireland.

Type in Great Britain, Highland.

Mountain districts; rare. *Fl.* July to September.

4. Head of Glenmalure, Wicklow (named by *Mr. Backhouse*); *I. C.*—12. Glenariff, Antrim (*H. rigidum*); *Backhouse*. Garron Head, Antrim (*H. rigidum*); *C. C. B.* Copses near Garvagh, Derry! *D. M.*

15. *H. boreale* (Fries).

*H. sabaudum* (Smith), *Flor. Hib.*

Districts 1? - - - 4 5 - - - - - 12

Lat. 51°-56°. From South to North of Ireland.

Type in Great Britain, British, inclining to English.

Woods, banks, and heathy or bushy places, local; and rather rare. *Fl.* August, September.

1. Ross Island, Killarney; *Flor. Hib.* Woods at Glengariff and at Bantry; *Flor. Cork*.—4. Plentiful in Glenmalure, and at Glendalough, Wicklow; *I. C.* Devil's Glen, Wicklow (*I. C.*); *C. C. B.*—5. Wood at the back of Ballitore hill, Kildare; *I. C.*—12. Banks of the Agivey river; and glen near Magilligan, Derry; *D. M.* Rocks in Tullamore Park; *Flor. Ulst.* Cavine Castle; and between Larne and Glenarm, Antrim; *Ir. Flor.* Cave Hill, near Belfast; *C. C. B.*

*Obs.*—"Xanthium, seu. *Lappa minor*," described by Smith

as common in the barony of Irachticonnor, near Listowel, and other places in Kerry, was probably *Arctium minus*, or *A. intermedium*.

ORDER XXXIX.—CAMPANULACEÆ.

*LOBELIA* Linn.

1. *L. Dortmanna* (Linn.)—*Water Lobelia*.

Districts 1 2 4 6 8 9 10 11 12  
 Lat. 51°–56°. From South to North of Ireland.

Type in Great Britain, Scottish, inclining to Highland.

Margin of lakes, frequent in mountainous districts. *Fl.* July, August.

1. In all the lakes near Killarney; *Mackay Cat. Ir.* Lakes at Gougaunbarra and near Glengariff; *I. C.*—2. Ballyscanlon lake, near Tramore, Waterford; *Miss S. Grubb.*—4. Glendalough and Lough Dan, Wicklow; *Flor. Hib.* In the lower Lough Bray; *Mr. V. A. Smith.*—6. Between Miltown and Kilrush, Clare; *Mr. C. Carter.*—8. Common in Connemara, and in Loughs Conn. and Cullin; *A. G. M.* Lough Clunon, in Erris; *C. C. B.*—9. Near Foxford, Mayo; *A. G. M.*—10. In Lough Neagh; *Flor. Ulst.*—11. In most of the lakes in Donegal; *Admiral Jones, &c.*—12. Lakes in the Marnè range; Castlewellan Lake, and lake south of Strangford; *Flor. Ulst.* Portmore Lake, and Lough Neagh in Antrim; and in Lough Beg, Derry; *D. M.*

From near sea level to 800 feet on Slieve League, Donegal (*Flor. Ulst.*)

*JASIONE* Linn.

1. *J. montana* (Linn.)—*Sheep's Scabious*.

District 1 2 3 4 5 6 8 9 11 12  
 Lat. 51°–56°. Throughout Ireland.

Type in Great Britain, British, inclining to English.

Heaths and moors, sandy banks, &c.; frequent. *Fl.* July, August.

Chiefly on a gravelly or siliceous soil, and on peat.

From about sea level to 2000 feet on Nephin.

## CAMPANULA Linn.

1. ? *C. latifolia* (Linn.)—*Giant Bell-flower*.

Districts - - 3? 4? - - - - -

Lat. 52°-53°. South-east of Ireland.

Type in Great Britain, Scottish, or Intermediate.

Woods and thickets; very rare. *Fl.* July, August.

Woods by the river Barrow above New Ross; *Flor. Hib.* The river here divides the counties of Kilkenny and Wexford, and districts 3 and 4. We have seen no specimens, and it is very desirable that the locality should be confirmed, lest a large form of *C. Trachelium* should have been mistaken for *C. latifolia*.

2. *C. Trachelium* (Linn.)—*Nettle-leaved Bell-flower*.

Districts - - 3 - (5) - - - - -

Lat. 52°-53°. South-east of Ireland—Kilkenny only.

Type in Great Britain, English.

Hedges and thickets; very rare and local. *Fl.* July, August.

3. River-side below Innistiogue, Kilkenny; *Flor. Hib.* Woodstock, near Innistiogue; Archer's Grove; Sheestown; Laggbush, all in Kilkenny; *Rev. S. Madden*.—5? In a lane between Glasnevin and Finglas; *Flor. Hib.* On the back of an old ditch between Glasnevin and Finglas bridge; *Ir. Flor.* Probably introduced in the last station, where it has not been found of late years.

3. *C. rotundifolia* (Linn.)—*Hairbell*.

Districts 1 2 - 4 5 6 7 8 9 10 11 12

Lat. 51°-56°. Throughout Ireland.

Type in Great Britain, British.

Heaths, dry pastures, and stony places; frequent, but rather local. *Fl.* July, August.

Very rare in Cork; *Flor. Cork.*; and only found in the southern division of the county; *I. C.* Less frequent in the west than the eastern side of Ireland.

From sea-level to 2000 feet on Slieve Donard; *Flor. Ulst.*

[*C. patula* (Linn.) grows under a hawthorn hedge on a

bank by the road-side, half a mile from Ballycallan church, on the way to Kilkenny, where it was observed in 1861 and 1862 by the Rev. S. Madden, but its claims to be considered indigenous are at least doubtful.]

*WAHLENBERGIA* Schrad.

1. *W. hederacea* (Reich.)—*Ivy-leaved Bell-flower*.

*Campanula hed.* (Linn.), Brit. Flor.; Flor. Hib.; Bentham.

Districts 1 2 - 4 - - - - - - - - - -

Lat. 51°–54°. South and East of Ireland—Cork and Wicklow.

Type in Great Britain, Atlantic.

Boggy ground and damp shady banks; rare. *Fl.* July, August.

Near the old House of Barley-field, near Ballybritton, five miles from Bandon; *Wade Rar.* By the mill stream at Kilbrittain, near Bandon; *Flor. Cork.* Plentiful near Bandon, &c., in Cork; *Mackay Cat.* By the Lee and Bandon rivers; *Drummond.* 2. Near the Mardyke; banks of the Lee, opposite Carrigrohane Castle; *Flor. Cork.* Above Inniscarra, on the east side of the Lee (with white flowers); *Flor. Cork.* Moist field by the Bandon road, two miles south of Kilcreagh Abbey; *Mr. T. Wright.* Very rare in Cork; *I. C.*—4. On Sugar Loaf Mountain, Wicklow; *Mackay Rar.* Abundant near the Copse-wood in Glenree, between Enniskerry and Lough Bray; *Flor. Hib.* Between Enniskerry and the school-house, on the backs of the ditches on the road-side; *Ir. Flor.*

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ORDER XL.—ERICACEÆ.

*ARBUTUS* Linn.

1. *A. Unedo* (Linn.)—*Strawberry Tree*.

District 1 - - - - - - - - - -

Lat. 51°–53°. South-west of Ireland—Kerry and Cork.

Hibernian type. Not native in Great Britain.

Boggy woods and rocky places; very local. *Fl.* September, October.

1. Plentiful in the woods at Mucruss, and in all the islands

in the lakes at Killarney; as well as at Glengariff, near Bantry; *Flor. Hib.* At Glengariff and about most of the mountains and lakes in the barony of Bere; *Drummond.* By the lakes in the barony of Bere; Ballyrizzard, Crookhaven; *Flor. Cork.* An old tree on the western declivity of Hungry Hill; Island in Lough Inchiquin, on the south side of Kenmare Bay; *I. C.* Islands at the head of the Kenmare river; *Smith's "Kerry."*

Parkinson notices the *Arbutus* as "of late dayes [1680] found in the west part of Ireland" (*Theatr. Bot.*, pp. 1489, 1490).

*ARCTOSTAPHYLOS* Adans.

1. *A. Uva-ursi* (Spr.)—*Red Bear-berry.*

*Arbutus Uva-ursi* (Linn.)—*Flor. Hib.*

Districts - - - - - 6 - 8 9 - 11 12

Lat. 53°-56°. West and North of Ireland.

Type in Great Britain, Highland.

Mountain heaths and stony pastures; local. *Fl.* May.

6. Abundant in Burren, Clare; *Wade Rar.*, *Flor. Hib.*, &c. Plentiful about Castle Taylor, Galway; *A. G. M.*—8. Common on the mountains of Connemara; Island of Buffin, &c.; *Wade Rar.* On Cor Slieve, in Erris; *D. M.*—9. In Sligo, but rare; *the late Mr. J. Wynne.*—11. Naren and Rutland, Donegal; *Admiral Jones.* Glen Columbkil; Muckish; Errigal, &c.; *Flor Ulst.* Horn Head, and Urris; *Mr. C. Moore.*—12. Fair Head, Antrim; top of Slieve Donard; *Flor. Ulst.*

From 50 feet or less to 1530 feet on Errigal, and 2796 feet on Slieve Donard (*Flor. Ulst.*).

*ANDROMEDA* Linn.

1. *A. polifolia* (Linn.)—*Marsh Andromeda.*

Districts 1 - 3 4 5 - - - - -

Lat. 51°-55°. Midland Counties of Ireland, chiefly.

Type in Great Britain, Intermediate, inclining to Scottish.

Peat bogs; local. *Fl.* May and August.

1. In several bogs in Iveragh and Dunkerron baronies; *Smith's "Kerry."* In the Counties of Kerry and Cork;

*Mackay Rar.*; not seen by *I. C.*—3. Edenderry, King's County; *Mr. T. Chandlee*. By the canal between Robertstown and Tullamore; *Ir. Flor.*—4. Bogs between Roebuck and Lough Bray, Wicklow; *Ir. Flor.*—5. On the bog by Isaacstown, Meath; (*Mr. Sherard*) *App. to Threlkeld*. Narraghmore bog, near Ballitore; *I. C.* Bog near Robertstown, Kildare; *Mr. J. Douglas*. Bog of Allen, in Kildare; *Wade Rar.* Near Ballytore; *Mr. T. Chandlee*.—6. Bog between Newport and Castleconnell (broad-leaved variety); *Flor. Hib.* Bog near Woodford, Galway; *D. M.* Bog in Clare, opposite Plassey; *I. C.* On a bog near Tulla, Clare; *Rev. T. Warren*.—7. Plentiful on bogs in the midland counties; *Mr. F. J. Foot*. Ballinderry Bog, West Meath; *Miss E. Reynell*. Near Belvedere Lake; *D. M.*—9. About Athlone and Ballinasloe; *Mr. F. J. Foot*. Hollymount, Mayo; *A. G. M.* Near Tartaraghan, Armagh; *Rev. G. Robinson*.—12. Grey Abbey bog, County Down; *Ir. Flor.* Moss between Newtonards and Donaghadee; *Flor. Usl.* Cotton Moss; *Flor. Belf.* Wolf Island bog; *Mr. S. A. Stewart*.

*CALLUNA* Salisb.

1. *C. vulgaris* (Salisb.)—*Common Ling.*

Districts 1 2 3 4 5 6 7 8 9 10 11 12

Lat. 51°–56°. Throughout Ireland.

Type in Great Britain, British.

Heaths, moors, and mountains; common. *Fl.* June, August.

From sea-level to 2796 feet on Slieve Donard (*Flor. Usl.*); and 2200 feet in Derry (*D. M.*)

*ERICA* Linn.

1. *E. cinerea* (Linn.)—*Common Heath.*

Districts 1 2 3 4 5 6 7 8 9 10 11 12

Lat. 51°–56°. Throughout Ireland.

Type in Great Britain, British.

Heaths, moors, mountains, &c.; common. *Fl.* July, August.

Ranges from sea-level to 1900 feet on Muckish (*Flor. Usl.*); and 2000 feet in Derry (*D. M.*)

2. *E. ciliaris* (Linn.)—*Ciliated Heath*.

District - - - - - 8 - - - - -

Lat. 53°-54°. West of Ireland—Galway only.

Type in Great Britain, Atlantic.

Heaths; very rare. *Fl.* August, September.

Found in 1846, by Mr. J. F. Bergin, growing with *E. Mackaiana*, at Craigga More, near Roundstone, Connemara.\*

Professor Balfour has kindly informed us that he, with his pupils, when in Ireland in August, 1852, gathered *Erica ciliaris* in some quantity on Craigga More, between Clifden and Roundstone; (as recorded in the *Phytologist*, O. S., iv., 1007, and *Bot. Soc., Edin., Proceedings* for 1852.)

*E. Mackaiana* (Bab.)—*E. Tetralix* var. Benth.

Districts - - - - - 8 - - - - -

Wet boggy heaths; very rare. 8. On a wet heath called "Craigga More," by the side of the road between Roundstone and Clifden, within three miles of Roundstone, Connemara; *Flor. Hib., &c.* Also by the hamlet of Letterdife, within a mile of Roundstone; *Mr. L. Ogilby*. In Charlesworth's "Magazine of Natural History" (iii., p. 574). Mr. Newman records his having found *E. Mackaiana* near Achill Sound, but this station has not been confirmed by any recent observer. The reported locality near Clonakilty, Cork, was probably erroneous.

*E. Mackaiana* is, we believe, only a hybrid between *E. Tetralix* and *E. ciliaris*. Other botanists, with Mr. Benth., consider it to be a form of *E. Tetralix*. Some of Irish specimens scarcely differ from *E. ciliaris* var. *Watsoni* gathered in Cornwall, where (as at Urrisbeg) the two supposed parents grow together. First noticed by Mr. W. M'Alla previous to 1835.

3. *E. Tetralix* (Linn.)—*Cross-leaved Heath*.

Districts 1 2 3 4 5 6 7 8 9 10 11 12

Lat. 51°-56°. Throughout Ireland.

Type in Great Britain, British.

Wet boggy heaths; common. *Fl.* July, August.

\* Mr. W. Andrews has lately informed us that he once gathered *E. ciliaris* on Monmor bog, between Kilrush and Kilkee, in Clare.

From sea-level to 1500 feet on Slieve League, and 1600 feet on Slieve Donard (*Flor. Ulst.*)

4. *E. mediterranea* (Linn.)—*Mayo Heath*.

*E. carnea* (Linn.) Bentham. *E. mediterranea* var.  $\beta$  *hibernica*, Brit. Flor.

District - - - - - 8 - - - - -

Lat. 53°-54°. West of Ireland—Galway and Mayo only.

Hibernian Type. Not found in Great Britain.

Boggy mountain heaths near the coast; very local. *Fl.* April.

8. On the western declivity of Urrisbeg mountain, near Roundstone, Connemara; *Flor. Hib.* On Mweelrea mountain at the mouth of the Killery Harbour, Mayo; *Mackay App. to Frazer*. At Mulranny, opposite the Island of Achill; *Lady Louisa Knox*. Curraun Achill; and Burrishoole Lake, on the north side of Clew Bay; *Brit. Flor.* All along Achill Sound, on the shore of the mainland opposite Achill Island, and thence near the shore as far as the north end of Carrowmore Lake in Erris, (a dwarf variety, with flowers of a deeper purple than in the Urrisbeg plant); *D. M.* Discovered, at Urrisbeg, by Dr. Mackay, in 1830.

*Obs.*—*E. vagans* (Linn.) In answer to an enquiry addressed to him, Dr. Burkitt, of Waterford, has kindly informed us that in 1836 he gathered a specimen on the cliffs in the townland called Islandicane, west of Tramore, Waterford; this specimen, which we have not been able to trace, was sent with other heaths from the same locality to the late Dr. Ball, who is the authority for the name of the species. It is very desirable that the locality should be examined afresh, as Dr. E. Perceval Wright has searched the whole length of coast from Anne's-town to the "Metal Man," without discovering any trace of the Cornish Heath.

*DABEOCIA* D. Don.

1. *D. polifolia* (D. Don.)—*Bell Heath*.

*Menziesia polifolia* (Juss.) Brit Flor., Flor. Hib., &c.

District - - - - - 8 - - - - -

Lat. 53°-54°. West of Ireland—Galway and Mayo only.

Hibernian Type. Not found in Great Britain.



Heaths, moors, and mountains; very local. *Fl.* August.

8. Plentiful within half a mile of the town of Galway (*Mackay Rar.*), and throughout Connemara and Joyce country in Galway. Also on many of the islets in Lough Corrib; and "at the foot and sides of the mountains west of Lough Mask" (*Dr. Patrick Browne.*) Frequent on heaths and moors in the south-west of Mayo, reaching as far north as Croagh Patrick (*Smith's English Flora*); and Old Head, on the south shore of Clew Bay (*Miss K. M. Lindsey.*)

First found in Mayo and Galway by Lhwyd, previous to 1699.—(See *Phil. Trans.*, 1712.)

### VACCINIUM Linn.

#### 1. V. Myrtillus (Linn.)—*Bilberry.*

Districts 1 2 3 4 5 6 7 8 9 10 11 12  
 Lat. 51°–56°. Throughout Ireland.

Type in Great Britain, British, inclining to Scottish.

Heathy woods, bogs, moors, and mountains; common.  
*Fl.* May.

From sea-level to nearly the top of the highest mountains, 3000 feet or more.

#### 2. V. Vitis-idaea (Linn.)—*Cowberry.*

Districts — 2 — 4 5 — 7 8 9 10 11 12  
 Lat. 52°–56°. From South to North of Ireland.

Type in Great Britain, Highland, inclining to Scottish.

Mountain heaths; rather local. *Fl.* June, July.

2. On Galtymore, Tipperary, but rare; *I. C.*—4. Plentiful on the Dublin mountains, near Lough Bray; *Flor. Hib.* Lugnaquilla; *Ir. Flor.*—5. Carlingford mountains; *Ir. Flor.* On Keeper Mountain, Tipperary; *Admiral Jones.*—8. Connemara; *Flor. Hib.* On Nephin; *C. C. B.* Achill; *Mr. E. Newman.* On Cor Slieve in Erris; *D. M.*—9. In Sligo, but rare; *the late Mr. J. Wynne.*—10. Near Drumquin, Tyrone; *Admiral Jones.* 11. On Errigal; *Flor. Ulst.*—12. Mourne mountains; *Flor. Hib.* Slieve Donard; Binian; top of Divis mountain; cliffs at west end of Cave Hill, rare; top of

Slieve Nance, Antrim; *Flor. Ulst.* On Dart mountain; *D.M.* The stations of Ballinahinch, Dungannon, and south end of Lough Neagh (*Flor Ulst.*), are probably erroneous.

Reaches 1900 feet on Errigal (*Flor. Ulst.*); 2000 feet on Dart (*D. M.*); 2500 on Galtymore (*I. C.*)

### 3. *V. Oxycoccus* (Linn.)—*Cranberry*.

Districts 1 2 - 4 5 6 7 8 9 10 11 12  
Lat. 51°-56°. From South to North of Ireland.

Type in Great Britain, British, inclining to Intermediate.

Spongy bogs; frequent, but local. *Fl.* June, July.

Rare in the south, though described by Dr. Smith as plentiful in Cork.

1. Bog near Dunmanway; *Prof. E. Murphy*.—2. Glenagad, Waterford; *Mr. R. Davis*. In a bog about a mile from Clonmel; *Miss S. Grubb*. Not unfrequent in many parts of the middle and north of Ireland.

From sea-level to about 700 feet in Antrim.

### *PYROLA* Linn.

#### 1. *P. media* (Sm.)—*Intermediate Winter-green*.

Districts - - - - - 6 - - 9 - 11 12  
Lat. 53°-56°. West and North of Ireland.

Type in Great Britain, Scottish.

Heathy and bushy places; rare and local. *Fl.* July, August.

6. In several places in Burren; hills west of Ballyvaughan; high ground south of Ballyallabaun; summit of Slieve-Carran, the highest limestone hill in Burren, at 1075 feet; *Mr. F. J. Foot*.—9. Ben Whisken, Sligo; *Admiral Jones*. Near Hazlewood; *Mr. J. Wynne*.—11. Among heath on the east side of Hornhead; Ards House demesne, and in Mentiagh glen, parish of Clonmany, Donegal; *Mr. C. Moore*.—12. Frequent in many parts of Antrim and Derry; Glenedra, Altahoan glen, Moneymore, and Errigal banks. Glen in Ballinascreen mountain, Derry; Newtonards; Ballygowan bog; Wolfhill and Crowglen; Colin glen and Black mountain; *Flor. Ulst.* Glenarm; *D. M.*

2. *P. minor* (Linn.)—*Lesser Winter-green.*

Districts - - - 4 - - 7 - - - 11 12

Lat. 52°-56°. Middle and North-east of Ireland.

Type in Great Britain, Scottish, inclining to Germanic.

Woods and bushy or heathy places; rare and local. *Fl.* July, August.

4. In the Vale of Ovoca, near the Meeting of the Waters; spec. sent to *D. M.*—7. In a bog by Roscree, in the King's County (Mr. Heaton) *How. Phyt. Brit.*, 1650. Ballygall demesne, West Meath; *D. M.*—11. Ards-house, near Dunfanaghy, Donegal (Prof. E. Murphy); *Flor. Hib.*—12. Woods at Lissan and Castle Dawson; Altahoan glen and Errigal banks, Derry; *D. M.* North side of Slemish mountain and at Glenarm, Crow glen, Garvagh, at Banagher, near the Owenbeg river; *Flor. Ulst.* Wood at the upper end of Colin glen; *Mr. S. A. Stewart.* Frequent in Antrim; as in Woodburn glen, near Carrickfergus; Glenariff; Glendoon, &c.; *D. M.*

3. *P. secunda* (Linn.)—*Serrated Winter-green.*

District - - - - - 12

Lat. 54°-56°. North-east of Ireland—Derry and Antrim only.

Type in Great Britain, Scottish.

Dry heathy banks; very rare. *Fl.* July.

12. On Errigal banks (the bank which faces the north of the Agivey river) above Garvagh, Derry; *D. M.* Glenarm and Sillagh braes; also on Agnew's Hill, near Larne, Antrim; *D. M.*

*MONOTROPA* Linn.

1. *M. Hypopitys* (Linn.)—*Yellow Bird's-nest.*

Districts - - - - 5 6 - - - - 12

Lat. 53°-55°. Middle of Ireland, chiefly.

Type in Great Britain, Germanic, inclining to English.

Under beech and fir trees on a dry soil; very rare. *Fl.* July, August.

5. At the foot of old pine trees at Moore Abbey, Kildare; *Wade Rar.*—6. Under beech trees at Castle Taylor, Galway; *A. G. M.* Under pine trees in Lord Clancarty's demesne at

Ballinasloe; *D. M.*—12. Woods at St. Catherine's, County Down; *Ir., Flor.* At Grey Abbey, County Down; *Flor. Ulst.*

This and *Tencrium Scordium*, are the only species belonging to Watson's Germanic type, which reach the west of Ireland.

*Asotragalus Hypoglottis*, *Orchis pyramidalis*, *Bromus erectus*  
See p. 380.

## ORDER XLI.—AQUIFOLIACEÆ.

*ILEX* Linn.1. *I. Aquifolium* (Linn.)—*Holly*.

Districts 1 2 3 4 - 6 7 8 9 10 11 12

Lat. 51°-56°. Throughout Ireland.

Type in Great Britain, British.

Woods and heaths; frequent. *Fl.* June to August.

A variety with yellow berries grows on the mountains round Lough Lane, Kerry; *Smith's "Kerry."*

## ORDER XLII.—OLEACEÆ.

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

Districts (1) 2 (3) (4) (5) (6) (7) - (9) - (11) (12)

Lat. 52°-53°. Apparently native in the South of Ireland.

Type in Great Britain, English.

Frequent in hedges and thickets, where it has probably been planted; very rare as indigenous. *Fl.* June, July.

2. Sandhills near Tramore, Waterford; *Miss S. Grubb*. Cliffs at Tramore; *Rev. S. Madden*. Hedges and thickets, common about Fermoy; *Mr. T. Chandlee*. Dr. E. Perceval Wright considers the Privet certainly indigenous in several places along the cliffs of Islandicane, near Tramore.

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

Districts 1 2 3 4 5 6 7 8 9 10 11 12

Lat. 51°-56°. Throughout Ireland.

Type in Great Britain, British.

Woods, hedges, and rocky places; frequent. *Fl.* June, July.

## ORDER APOCYNACEÆ.

*Vinca minor* (Linn.) and *V. major* (Linn.) have become naturalized in a few places where they have been originally planted, or have escaped from cultivation.

## ORDER XLIII.—GENTIANACEÆ.

## CHLORA Linn.

**C. perfoliata** (Linn.)—*Perfoliate Yellow-wort.*

Districts 1 2 3 4 5 6 7 8 9 - - (12)

Lat. 51°-55°. South and Middle of Ireland.

Type in Great Britain, English.

Pastures on limestone or sand, especially near the sea; local. *Fl.* July to September.

Rare in the South, but occurs in both divisions of the County Cork; (*I. C.*) and in Waterford; (*Miss S. Grubb*). Not unfrequent in several parts of the middle of Ireland, but very rare in the north. In 1847 Mr. D. Orr found many plants growing on soil that had been thrown up in making the Ballymena railway, about two miles above the Carrickfergus junction, where the plant had probably been introduced.

## ERYTHRÆA Ren.

1. **E. pulchella** (Fries.)—*Dwarf Centaury.*

*E. Centaurium* var. Bentham.

Districts 1 2 - - - - - 12?

Lat. 51°-52°. South of Ireland—Cork only?

Type in Great Britain, English.

Sandy sea shores; very rare. *Fl.* July to September.

1. On Cape Clear Island; *Drummond*. Shore near Bantry; and strand at Glandore; *Mr. J. Sullivan*.—2. Near Youghal (*Miss Ball*); *Flor. Cork*.—12. Shore below Bangor (*Mr. Templeton*). Shore of Strangford Lough, opposite to Newtownards (*Mr. Orr*). Rathlin (*Miss Gage*); *Flor. Ulst*. Dr. Dickie fears that some variety of *E. Centaurium* has been mistaken for *E. pulchella* in the north of Ireland.

2. *E. Centaurium* (Pers.)—*Common Centaury*.

Districts 1 2 3 4 5 6 7 8 9 - 11 12

Lat. 51°–56°. Throughout Ireland.

Type in Great Britain, British.

✓ Dry pastures; frequent, especially on the coast. *Fl.* July, August.*Var. β latifolia* (*E. latifolia* Smith).

Sandy sea shores; frequent.—2. Near Youghal (Miss Ball); *Flor. Cork*. Ardmore, on the coast of Waterford; *Mr. J. Sullivan*.—5. Portmarnock sands; *Flor. Hib.*—6. Frequent at Kilkee, Clare; *I. C.*—8. Coast of Connemara! *Miss K. M. Lindsey*.—11. Malin and Bunbeg, Donegal; *Flor. Ulst.*—12. County of Down; *Flor. Hib.* Lough shore near Bangor; Portstewart; *Flor. Ulst.*

*Obs.*—*E. littoralis* (Fries) is given in "*Flora Hibernica*" as found at Portmarnock, Dublin, but we have not been able to find it in this locality. The stations of Bangor, Copeland Island, and shore west of Groomsport, recorded in the "*Flora of Ulster*," are also probably erroneous, as Dr. Dickie himself suggests.

*CICENDIA* Adans.1. *C. filiformis* (Reich.)—*Slender Cicendia*.*Exacum filiforme* (Sm.), *Flor. Hib.*

District 1 - - - - -

Lat 51°–53°. South-west of Ireland—Kerry and Cork.

✓ Type in Great Britain, English, inclining to Atlantic.

Moist sandy heaths; very local and rare. *Fl.* July, Aug.

1. Roadside between Kenmare and Killarney; *D.M.* Killarney; *Mr. L. Ogilby*. Dursey Island, Cork; *Wade Rar.* Glengariff and Castletown, Bearhaven; *I. C.* Near Glenmore Lake, Kerry; *Mr. T. Wright*. Sandy turf-bogs near Bantry; *Flor. Hib.*

*GENTIANA* Linn.1. *G. Amarella* (Linn.)—*Small-flowered Gentian*.

Districts 1 2 3 4 5 6 7 8 9 - - 12

Lat. 51°–55° or 56°. From South to North of Ireland.

Type in Great Britain, British, inclining to Germanic.

Pastures, mostly on limestone; rather local. *Fl.* July, August.

Very rare in the south. 1. Plentiful, with *G. campestris*, along the Bandon river, near Ballinadee; *Prof. E. Murphy*. Road-side near Kinsale; *Mr. J. Sullivan*.—2. In north Cork, near Doneraile; *Mr. T. Wright*. Frequent in many parts of the middle of Ireland. Rare in the north. On Keady mountain only in Derry; *D. M.* Cave Hill, &c., in Antrim; *Flor. Ulst.*

From sea-level to 700 feet on Keady (*D. M.*)

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

Districts 1 2 3 4 5 6 7 8 9 - 11 12  
Lat. 51°-56°. Throughout Ireland.

Type in Great Britain, British, inclining to Scottish.

Hilly pastures, chiefly on limestone; frequent. *Fl.* July, August.

Not a common species, but appears to be more widely distributed than *G. Amarella*, and is especially plentiful on the basaltic formation in Derry and Antrim (*D. M.*) Much more common in the west than on the east side of Ireland.

Ranges from sea-level to 1000 feet in Derry (*D. M.*).

3. *G. verna* (Linn.)—*Spring Gentian.*

Districts - - - - - 6 - 8 9 - - -  
Lat. 53°-54°. West of Ireland—Clare, Galway, Mayo.

Type in Great Britain, Intermediate.

Calcareous pastures; very local. *Fl.* April, May.

6. Plentiful on the Burren mountains, near Gort; *Flor. Hib.* All over the limestone of Burren, and on the sand-hills of the shore; *Mr. F. J. Foot*. Between Gort and Lough Cooter Castle; *D. M.* In the mountains betwixt Gort and Galloway, abundantly (*Mr. Heaton*); *How, Phyt. Brit.* (1650). At Castle Taylor, Galway; *Wade Rar.* (plentiful; *A. G. M.*) Near the town of Galway, on the east side; *Prof. Melville*. Great Island of Arran; *-D. M.*—8. To the west of Galway, on limestone drift; *Prof. Melville*. On

moory ground, near Cong, in Galway; *D. M.*—9. On hilly grounds about eight miles west of Tuam; *Flor. Hib.* On the banks of Lough Carra! Mayo; *the late Mrs. Spencer Lindsey*. First noticed by Mr. Heaton previous to 1650 (*How, Phyt. Brit.*).

From sea-level to about 600 feet in Burren.

*MENYANTHES* Linn.

1. *M. trifoliata* (Linn.)—*Buckbean*.

Districts 1 2 3 4 5 6 7 8 9 10 11 12  
Lat. 51°–56°. Throughout Ireland.

Type in Great Britain, British.

Wet bogs and margins of lakes; common. *Fl.* May, June.

[*Villarsia nymphaeoides* (Vent.) is naturalized in the Lagan canal, above the Botanic Garden, Belfast, and in various parts of Lough Neagh; also in the river Tolka at Glasnevin; in a drain near Vernonmount Gate, Cork; and in a stream near Shanbally, Tipperary; but only occurs where it has been planted.]

[*Polemonium cœruleum* (Linn.). In a meadow near Castle Island; *Smith's "Kerry."* Between Cork and Ballygarvan (naturalized); *Flor. Cork*. Knockmaroon-hill, near Dublin; *Flor. Hib.* Near Bellaghy, &c. (not indigenous); *Flor. Ulst.* An outcast from gardens.]

ORDER XLIV.—CONVOLVULACEÆ.

*CONVOLVULUS* Linn.

1. *C. arvensis* (Linn.)—*Small Bindweed*.

Districts 1 2 3 4 5 6? 7 - - 10 - 12  
Lat. 51°–55°. South and East of Ireland chiefly.

Type in Great Britain, English, inclining to British.

Hedges and fields; local, and rather rare. *Fl.* June to August.

1 and 2. Common near Cork; *Flor. Cork*, &c. In Waterford; *I. C.* By road-sides near Fermoy, but not common;



*Mr. T. Chandlee.*—3. Several places in Kilkenny; *Rev. S. Madden.* Kilmacow; *Mr. T. Chandlee.*—4. In Wicklow; *D. M.*—5. In many places about Dublin. Straffan, Kildare; *Mr. J. Douglas.*—6? “Common in hedges” [probably near Limerick]; *Herb. Harvey.*—7. In Westmeath and Longford; *Mr. F. J. Foot.*—10. County Armagh; *Flor. Ulst.*—12. Templepatrick; Hollywood; Curran of Larne; Laganside; *Flor. Ulst.* Very rare in Derry, only seen by the Foyle above Londonderry; *D. M.*

2. *C. sepium* (Linn.)—*Great Bindweed.*

*Calystegia sepium* (R. Br.) Brit Flor.

Districts 1 2 3 4 5 6 7 8 9 - 11 12

Lat. 51°–56°. Throughout Ireland.

Type in Great Britain, English, inclining to British.

Hedge-banks and bushy or rocky places; frequent. *Fl.* July, August.

The flowers are often pink when the plant grows near the sea.

3. *C. Soldanella* (Linn.)—*Sea Bindweed.*

*Calystegia Soldanella* (R. Br.) Brit. Flor.

Districts 1 2 - 4 5 6 - - - - 11 12

Lat. 51°–56°. Round the coast of all Ireland.

Type in Great Britain, English.

Sandy sea-shores; frequent, but rather local. *Fl.* June, July.

CUSCUTA Linn.

1. \* *C. Epilinum* (Weihe)—*Flax Dodder.*

Districts 1 2 3 4 5 - - 8 9 - 11 12

Parasitical on cultivated flax; frequent. *Fl.* July, August.

A troublesome weed in the flax fields in many parts of the country, and, though probably sown with the flax, is now widely distributed, and appears likely to remain as long as the culture of flax is kept up in Ireland. It seems to be more thoroughly established than *Camelina sativa*.

*Obs.*—*C. Epithymum* (Murr.)—*Lesser Dodder.* “This plant groweth in great plenty on the dry sandy banks near the Maiden Tower, near Drogheda, and grows like red threads

on the top of the low grass;" *Threlkeld* (under "*Cuscuta major*"). The plant has not been recently gathered in Ireland; but the particulars given above are so precise that we believe Dr. Threlkeld's record is correct. The late Dr. Mackay used to speak of the Dodder having been found growing on furze on Killiney Hill, near Kingstown, Dublin; but we have not been able to obtain confirmation of this statement.

[*Cuscuta Trifolii* (Bab.) *Clover Dodder* has been observed once or twice in clover fields, but has not become established; its seeds appear to be killed by a severe winter.]

## ORDER XLV.—BORAGINACEÆ.

## CYNOGLOSSUM Linn.

1. *C. officinale* (Linn.)—*Common Hound's-tongue*.

Districts 1 2 3 4 5 - - - - - 12  
 Lat. 51°-55°. South and East of Ireland.

Type in Great Britain, English, inclining to Scottish.

Waste places, and sandhills on the coast; rare. *Fl.* June, July.

1 and 2. Rare about Cork; *Flor. Cork.*, but occurs in both divisions of the county; *Mr. J. Sullivan*.—2. Tra- more, Waterford; *Miss S. Grubb*. Near Clonmel; *Miss S. Grubb*. Ardfinane, Tipperary; *Miss A. Taylor*.—3. River- view and Sion Canal walk, Kilkenny; *Rev. S. Madden*.—4. Abundant on the Murrough of Wicklow; *D. M.*—5. Kilbarrock; Howth; Malahide; Phoenix Park; Merrion; &c.; frequent near Dublin; *Wade, Mackay, &c.* Near Moone, Kildare; *I. C. Carlingford*; *Flor. Ulst.*—12. Kirkiston; Dundrum; Sandhills north from Newcastle; *Flor. Ulst.* Waste ground south of Donaghadee; *Miss Maffett*.

2. *C. montanum* (Lam.)—*Green-leaved Hound's-tongue*.

*C. sylvaticum* (Hænke), Brit. Flor.

District - - - - 5 - - - - -  
 Lat. 53°-54°. East of Ireland—Dublin only.

Type in Great Britain, Germanic, inclining to English.

Thickets, way-sides, &c. ; very rare. *Fl.* June, July.

5. Near Balbriggan, or at Hampton (Dr. Scott); *Mackay Cat. Ir.* A specimen was found by Dr. Scott near Balbriggan; *Flor. Hib.* We are indebted to our friend Mr. Carroll for the opportunity of examining a specimen recently collected near Balbriggan by Mr. R. Hewson.

[*Borago officinalis* (Linn.) occurs occasionally in the neighbourhood of gardens, houses, and ruins, but has no claim to be reckoned indigenous, and is not even thoroughly established.]

*ANCHUSA* Linn.

1. \* *A. sempervirens* (Linn.)—*Evergreen Alkanet.*

Districts 1 2 - - 5 - - - - 10 11 12

Among ruins, at the foot of walls, along road-sides, and in hedges or plantations; very rare, and certainly not native. *Fl.* May, June.

1 and 2. Near Douglas; *Drummond.* Under Blarney Castle; *Flor. Cork.* In both divisions of Cork occasionally, but very rare; *I. C.*—5. Near Finglas; *Wade Dublin.*—10. Tandragee; *Flor. Ulst. Suppl.*—11. Near the church at Church-town! Donegal; *Mr. C. Moore.*—12. Near the ruins of Grey Abbey, Down; near Port-glenone and Maghrafelt; *Flor. Hib.* Ballycastle; Bangor; *Flor. Ulst. Suppl.* Lisburn; *Flor. Belf.* Stormont, Down; *Mr. S. A. Stewart.* In the woods at Roe Park, near the gate-house; lane leading from Newtownlimavady to Roe Mill; roadside near Ash-park, Derry (naturalized); found also in the parishes of Shankill and Duneane, Antrim; *D. M.*

*LYCOPSIS* Linn.

*L. arvensis* (Linn.)—*Field Bugloss.*

Districts 1? 2 3 4 5 - - - 9 - - 12

Lat. 52°-56°. East side of Ireland chiefly.

Type in Great Britain, British.

Sandy fields and banks, mostly near the sea; local. *Fl.* June, July.

1? In a field near Evergreen (Mr. J. Drummond); *Flor. Cork,* but not found recently.—2. Near Clonmel; *Miss S. Grubb.*—3. Three Castles, Kilkenny; *Mr. P. Duffy.*—

4. Abundant in Wexford; *I. C.* Murrrough of Wicklow; *D. M.*—5. Frequent in Dublin, especially in and near the coast; *D. M.*—9. Mullaghmore, Sligo; *Admiral Jones*.—12. Common in fields and wastes; *Flor. Ulst.* Local in Derry, abundant at Magilligan; *D. M.*

*SYMPHYTUM* Linn.

1. *S. officinale* (Linn.)—*Comfrey*.

Districts 1 2 3 4 5 6 7 8 9 10 11 12  
 Lat. 51°–56°. Throughout Ireland.

Type in Great Britain, English, inclining to British.

Banks of rivers and watery places; frequent. *Fl.* May, June.

Probably introduced in some localities.

[*S. tuberosum* (Linn.) Rubbish heaps at the Antrim road and near Carnmoney; *Flor. Ulst. Suppl.* Carnmoney hill, above the church; and White-house by a stream between Cave hill and the shore; *Mr. Millen* (in *Phytologist*). *Mr. S. A. Stewart* has not succeeded in finding the plant in the first station, and believes that some mistake has been made, or that only a stray root was found. In the "Flora of Cork" *Dr. Power* gives near Evergreen and about Ballyphehane House as localities; but here also the plant may have been introduced, as it is often grown in gardens.]

*ECHIUM* Linn.

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

Districts 1 2 (3) 4 5 - - - - - 12  
 Lat. 51°–55°. South and East of Ireland.

Type in Great Britain, British, inclining to English.

Sandy fields and waste places; rare. *Fl.* June, July.

1. On the sandy grounds of Ballyheigh Bay, not far from Fenit; *Smith's "Kerry."* Near Bantry; *Flor. Hib.*—1 and 2. Rare near Cork; *Flor. Cork*, but solitary plants occur here and there in both divisions of the county; *I. C.*—2. Near Rahill, Tipperary; *Miss S. Grubb*. In a field at Knockanaugher, near Fermoy; *Mr. T. Chandlee*.—(3.) In a hay-field near Ballyragget, Kilkenny; *Mr. P. Duffy*.—4. Frequent

in County Wexford; *Mr. J. Morrison*.—5. Portmarnock; and between Skerries and Balbriggan; *D. M.* Once or twice near Ballitore, in corn, &c.; *I. C.* In Kildare, but rare; *Mr. F. Haughton*. Mansfieldstown, Louth; *Flor. Hib.*—12. Belfast; Holywood; Money more; Newcastle; Dundrum; *Flor. Ulst.*

Often introduced with corn and hay seeds, but appears to be indigenous in the vicinity of the east coast.

### MERTENSIA Roth.

#### 1. *M. maritima* (Don)—*Sea Gromwell*.

*Lithospermum maritimum* (Lehm.) *Flor. Hib.*

Districts 1? - - 4 5 - - - - 11 12

Lat. 51° or 52°-56°. West? East, and North coasts of Ireland.

Type in Great Britain, Scottish.

Sandy or shingly sea-shores; local and rare. *Fl.* May to August.

1? On the beach near Beal Castle, Kerry; *Smith's "Kerry"* (sub. *Echium maritimum*).—4. Plentiful on the Murrough of Wicklow, where it was first discovered by Sherard.—5. Coast between Balbriggan and Skerries; *Flor. Hib.* Near Balbriggan and Skerries; *Wade Rar.*—11. Point of Nonvany, Donegal; *Mr. C. Moore*.—12. Coast near Dundrum; *Flor. Hib.* Newcastle, Down; *Rev. W. M. Hind*. Ballock, County Down coast; Island Magee; near Castlerock station, Derry line; *Flor. Ulst.* Garron Head, Antrim; *D. M.* Gravelly shore between Greencastle and the lighthouse, Down; *Ir. Flor.*

### LITHOSPERMUM Linn.

#### 1. *L. officinale* (Linn.)—*Common Gromwell*.

Districts 1 2 3 - 5 6 7 8 - 10 - 12

Lat. 51°-56. From South to North of Ireland.

Type in Great Britain, British, inclining to English.

Dry fields and waste stony places; rather rare. *Fl.* June to August.

1 and 2. Rare near Cork, but occurs in both divisions of

the county; *I.C.*—2. At Kilatty and Glanworth, near Fermoy, but rare; *Mr. T. Chandlee*. Near Clonmel; *Miss S. Grubb*.—3. Near Sion, Kilkenny; *Rev. S. Madden*. Kilmacow, Kilkenny; *Mr. T. Chandlee*. Mountrath, Queen's County; *I.C.*—5. At the foot of Inchicore hill, and under the brow above Palmerston mills; *Threlkeld*. Old Abbey, Howth; and quarry near Finglas bridge; *Wade Dubl*. In several localities near Dublin; *Flor. Hib.* and *Ir. Flor.* Between Santry and Finglas; *Mr. V. A. Smith*. Near Straffan, Kildare; *Mr. J. Douglas*.—6. Near Castle Taylor, Galway; *A. G. M.* On the east side of Galway; *Prof. Melville*. Road-side near Ballyvaughan, Clare; *Mr. F. J. Foot*.—7. Edmontown, West Meath; *Miss E. Regnell*.—8. On limestone rocks at Bunowen, Connemara; *I. C.*—10. Hedge-bank near Loughgall, Armagh; *A. G. M.* Near Raconnell, Monaghan; *Miss Maffett*.—12. Near Belfast; Cave-hill; Whitehead; *Flor. Ulst.* Hullstown, Derriaghy; *Flor. Belf.* By the Foyle above Derry, and banks of the Bann above Coleraine; *D. M.*  
From sea-level to 700 feet on the Cave Hill (*D. M.*)

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

Districts 1 2 3 4 5 6 - - - 10 - 12  
Lat. 51°-56°. From South to North of Ireland.  
Type in Great Britain, British.

Cultivated fields and waste places; rather local. *Fl.* May to July.

Not unfrequent in many parts of the south and east of Ireland. Rare in the west, though found in corn fields at Castle Taylor (*A. G. M.*) and Ballycurrin, Galway (*Prof. Melville*.) Not yet ascertained to occur in districts 8, 9, and 11; and not seen in Derry by *D. M.*; but there are several localities in Antrim.

*MYOSOTIS* Linn.

1. *M. palustris* (With.)—*Forget-me-not*.

Districts 1 2 3 4 5 6 7 8 9 10 11 12  
Lat. 51°-56°. Throughout Ireland.  
Type in Great Britain, British, inclining to English.

Ditches and sides of rivers; frequent. *Fl.* June to August.

2. *M. repens* (Don)—*Creeping Water Scorpion-grass*.*M. palustris* var. Bentham.

Districts 1 - - 4 5 - - 8 9 10 11 12

Lat. 51°-56°. Throughout Ireland?

Type in Great Britain, British.

Wet boggy places; not unfrequent. *Fl.* June to August.

Probably occurs in all the districts, having been found at many distant points in the extreme south, north, east, and west of Ireland.

3. *M. cæspitosa* (Schultz)—*Tufted Water Scorpion-grass*.*M. palustris* var. Bentham.

Districts 1 2 3 4 5 6 - 8 9 - 11 12

Lat. 51°-56°. Throughout Ireland.

Type in Great Britain, British.

Watery and boggy places; common. *Fl.* June to August.4. *M. arvensis* (Hoffm.)—*Field Scorpion-grass*.

Districts 1 2 3 4 5 6 7 8 9 10 11 12

Lat. 51°-56°. Throughout Ireland.

Type in Great Britain, British.

Fields, banks, copses, &c.; common. *Fl.* May to August.*Var. β umbrosa* (Bab.).Plentiful at the base of the cliffs between Carrickfergus and Cave Hill! at Glenarm and at Sillagh braes, Antrim; *D. M.* In sandy ground west of the bridge at Horn Head! Donegal; *Mr. C. Moore*. This is the plant given in "Flora Hibernica" and "Flora of Ulster" under the name of "*M. sylvatica*."5. *M. collina* (Hoffm.)—*Early Scorpion-grass*.

Districts - - - 4 5 - - - - - 12

Lat. ?-56°. East coast of Ireland.

Type in Great Britain, British.

Sand-hills and dry banks, near the sea; rare. *Fl.* April, May.4. Abundant on the Murrough of Wicklow; *D. M.*—5. Plentiful on the sand-hills at Portmarnock! (*Flor. Hib.*) and at Malahide; *D. M.*—12. On a turf wall near Dundonald

Bog; fields near Dundonald; *Flor. Ulst.* Abundant on the sandy warrens near Portrush and Bushmills, Antrim; *D. M.*

These are the only localities at present known, but the plant will no doubt be found in other places, and is especially likely to occur in the south of Ireland.

6. *M. versicolor* (Linn.)—*Yellow-and-blue Scorpion-grass.*

Districts 1 2 3 4 5 6 7 8 9 10 11 12  
Lat. 51°–56°. Throughout Ireland.

Type in Great Britain, British.

Pastures and banks; frequent. *Fl.* May, June.

ORDER XLVI.—SOLANACEÆ.

*SOLANUM* Linn.

1. † *S. nigrum* (Linn.)—*Black Nightshade.*

Districts 1 - - - 5 - 7 - - - 12  
Lat. 51°–55°. South and East of Ireland.

Type in Great Britain, English.

Cultivated ground, and waste places; very rare. *Fl.* July to September.

1. Near the old Abbey of Timoleague, Cork; *Drummond*. By the side of the middle Glanmire road; East Ferry, Great Island; *Flor. Cork*. In South Cork only; *Prof. E. Murphy*, and not seen by Mr. Carroll.—5. Waste places and old dung-hills near Dublin; *Flor. Hib.* On an old dunghill, near Richmond; *Mackay Cat. Ir.*—7. Edenderry, King's County, 1854; *Mr. T. Chandless spec.*—12. In Copeland Islands [Down], and on the main land opposite (Mr. Campbell) *Flor. Hib.*

The seeds of this plant are very liable to be carried in ballast and manure.

2. *S. Dulcamara* (Linn.)—*Bitter-sweet.*

Districts 1 2 3 4 5 6 7 8 9 (10) 11 12  
Lat. 51°–56°. From South to North of Ireland.

Type in Great Britain, British, inclining to English.



Bushy and stony places; rather rare and local. *Fl.* June, July.

1 and 2. Rare about Cork; *Flor. Cork*, but occurs in both divisions of the county; *I. C.*—3. Fertagh churchyard, Kilkenny; *Rev. S. Madden.*—4. In Wicklow, plentiful in wet hedge-rows near the Murrough; *D. M.*—5. Frequent about Dublin! *Flor. Hib.* Straffan, Kildare; *Mr. J. Douglas.*—6. Abundant on the shores of the lakes near Corrofin, Clare; *Mr. F. J. Foot.* On the shore at Baltard, near Kilkee, Clare; *I. C.* On the Great Island of Arran (*var. marinum*) *Prof. D. Oliver.*—8. Coast near Renvyle, Conemara; *Wade Rar.* Islets in Lough Mask, Mayo; *Prof. Melville.*—9. In Leitrim, but rare; *the late Mr. J. Wynne.* In a wood near Ballinrobe; *Dr. P. Browne.* In East Mayo; *A. G. M.*—10. By cottages in Urney glebe, Tyrone (introduced); *Admiral Jones.* In a shrubbery near Monaghan (probably introduced); *Miss Maffett.*—11. On the walls of Londonderry; *D. M.*—12. Near Belfast and shores of Lough Neagh! *Flor. Ulst.* In hedges near cottages in the parish of Clondermot, Derry; and on the shores of Lough Larne, Antrim; *D. M.*

#### ATROPA Linn.

1. \* **A. Belladonna** (Linn.)—*Deadly Nightshade.*

Districts 1 - 3 - 5 6 - - - - 12?

Waste places, always near ruins or houses; very rare. *Fl.* July to September.

1. Near Lord Ventry's residence near Dingle; *Rev. W. M. Hind.* At the southern end of Lota wood, only naturalized; *Flor. Cork*, and not found recently.—3. Among ruins at Kells, Kilkenny; *Mr. P. Duff.* By the brook-side where an old monastery stood at Stradbally, Queen's County; *Wade Rar.* Stradbally; *Mr. T. Chandlee spec !*—5. Side of a ditch between Blessington-street and the Penitentiary, Dublin; *Ir. Flor.* It hath been found wild at Dundrum; *Rutty.*—6. On islands in the river Fergus, north of Killadysart, Clare; *Mr. F. J. Foot.*—12? Benwarden; *Rev. W. M. Hind* (*Phytologist*, O. S. v., 187).

## HYOSCYAMUS Linn.

1. *H. niger* (Linn.)—*Henbane*.

Districts 1 2 2 4 5 - 7 - 9 10 - 12

Lat. 51°-56°. From South to North of Ireland.

Type in Great Britain, English, inclining to British.

Waste places near towns, and sand-hills on the coast; rare. *Fl.* June to August.

1 and 2. Rare about Cork, but occurs in both divisions; *I. C.* About Mitchelstown, Cork, in great plenty; *K'Eogh* (1735).—2. Dungarvan, Waterford; and near Clonmel; *Miss S. Grubb*, Holycross, Tipperary; *Rev. S. Madden*.—3. Riverveen and Kilmanagh, Kilkenny; and in Queen's County; *Rev. S. Madden*.—4. Rossclare, Wexford; *Rev. S. Madden*.—5. Kilmainham; Sandymount; Clontarf; Howth; Rathmines; *Wade Dubl.* Baldoyle and Sandymount; *Mackay Cat. Ir.* Kilbarrock; *Ir. Flor.* Straffan, Kildare; *Mr. J. Douglas*. Timolin, and Birdtown cross roads; *I. C.*—7. Rahan, King's County; *the late Rev. J. W. Despard*. Near Parsonstown; *the late Mr. J. White*.—8. Road-side in Conne-mara; *Mr. Simon Foot*. The Point, Sligo; *Rev. S. Madden*.—9. In Sligo, but rare; *the late Mr. J. Wynne*.—10. Near Armagh Cathedral; *Flor. Ulst.*—12. Grey Abbey; Bangor Bay; Carrickfergus; Curran of Larne; Ballycastle; *Flor. Ulst.* Magilligan, and side of Lough Neagh above Ballyronan; *D. M.*

Probably introduced in several of the above localities.

[*Datura Stramonium* (Linn.) is given in *Wade's "Plantae Rariores"* as found by the river Lions, in King's County, and is also included in "*Flora Hibernica*," but has no claim to be considered naturalized in Ireland.]

## ORDER XLVII.—OROBANCHACEÆ.

## OROBANCHE Linn.

1. *O. rapum* (Thuill.)—*Greater Broom rape*.

*O. major* (Linn.) Brit. Flor., Flor. Hib. Bentham.

Districts 1 2 3 4 5? - - - - -

Lat. 51°-54°. South and East of Ireland.

Type in Great Britain, English.

On the roots of broom and furze; rare and local. *Fl.* June to August.

1. and 2. Rather rare near Cork, but occurs in furze brakes throughout the county; *Flor. Cork.* Common near Cork and Bandon; *Mackay Rar.* Castle-Martyr, and Inch Castle; *Mr. T. Chandlee.*—2. Near Clonmel; *Mr. T. Anderson.* In South and North Cork; *I. C.* Tipperary; *Miss S. Grubb.*—3. Firoda, Kilkenny; *the late Rev. J. W. Despard.*—4. Plentiful at the lake of Luggelaw; Devil's Glen; and Seven Churches, Wicklow; *Flor. Hib.* Between Rathdrum and Lara; *D. M.* Kilbride, Wicklow; *Mr. S. Foot.*—5? Near Woodtown, between Luttrell's-town and Lucan; also between Dunleary and Bullock; *Wade Rar.* (probably *O. hederæ.*)

2. *O. rubra* (Sm.)—*Red Broom-rape.*

Districts - - - - - 6 - 8 - - 11 12

Lat. 53°-56°. West and North of Ireland.

Type in Great Britain, Scottish or Atlantic.

Rocky places and pastures, parasitical on thyme; local. *Fl.* June to August.

6. Road-side near Ballyvaughan; *A. G. M.* Abundant on the hills south and east of Ballyvaughan, Clare; *Mr. F. J. Foot.*—8. By the side of Lough Corrib; *the late Prof. Graham.* On a small hill four miles west of Galway; *Mackay Herb.*—11. Ards, Donegal; *Prof. E. Murphy.*—12. Plentiful on the basaltic range in Derry, from Umbra to Ben-bradagh; *D. M.* Cave Hill, near Belfast; Rathlin Island Knockagh! and cliffs, south from Glenarm! *Flor. Ulst.* On limestone in the west; on basalt only in the north.

Ranges from about 50 feet in Galway to 1000 feet in Derry.

3. *O. Hederæ* (Dub.)—*Ivy Broom-rape.*

*O. minor* Flor. Hib. *O. minor* var. Bentham.

Districts 1 2 3 4 5 6 - 8 9 - 11 -

Lat. 51°-56°. From South to nearly North of Ireland.

Type in Great Britain, Atlantic.

Rocks, walls, and woods, parasitical on Ivy; local. *Fl.* June to August.

1. Mucruss Abbey, and on several islands in the lake at Killarney; *Mackay Rar.*—1 and 2. Frequent in Cork; *Mr. T. Chandlee* and *I. C.* Rockville Castle, &c.; near Fermoy; *Mr. T. Chandlee.*—2. Stradbally Cove, Waterford; *Mr. T. Chandlee.*—3. In Sir Robert Staple's woods, Queen's County; *Flor. Hib.*—4. In Wicklow; *D. M.*—5. South side of Howth; plentiful in Palmerstown! and Leixlip! woods; *Flor. Hib.* Near the harbour at Dunleary (now Kingstown); *Mackay Rar.*—6. Carrigogonnell Castle, and Askeaton, Limerick; *Prof. Harvey.* South Isles of Arran; *Flor. Hib.*—8. At the Killeries, in Connemara; *Mr. W. Andrews.*—9. On the ruins of Cong Abbey, Mayo; *A. G. M.*—11. On the west shore of Lough Swilly, near Rathmelton; *Flor. Ulst.*

Chiefly near the coast, and extends round nearly all Ireland, but has not been observed in the north-eastern counties.

[*O. minor* (Linn.) This was observed by Mr. T. Wright, plentiful for one season, in a clover field near Trabolgan, and once occurred, in small quantity, in a clover field near Aghada, Cork, having been brought with the clover seed; *I. C.*]

#### LATHRÆA Linn.

##### 1. *L. Squamaria* (Linn.)—*Tooth-wort.*

Districts - 2 - 4 5 6 - - - 10 - 12  
 Lat. 51°-56°. From South to North of Ireland.

Type in Great Britain, English.

Woods and thickets; parasitical on the roots of trees; rather rare. *Fl.* April, May.

2. Several localities in Cork; *Flor. Cork* and *I. C.* Between Fermoy and Mallow, &c.; *Mr. T. Chandlee.* Near Clonmel; *Miss S. Grubb.*—4. Baltinglass, Wicklow; *Rev. J. M. Emerson.* Powerscourt Waterfall; *Mackay Cat. Ir.* Balruddery; *Flor. Hib.* Ballyarthur woods, Wicklow; *Ir. Flor.*—5. Woodlands, &c., in Dublin; *Wade* and *Flor. Hib.*—6. Near Limerick; *Prof. Harvey.* Edenvale, near Ennis, Clare; *Mr. F. J. Foot.* Near Ballinasloe; *D. M.*—10. At Loughgall Manor, Armagh; *A. G. M.*—12. Tullamore Park,

and several places near Belfast; *Flor. Ulst.* Shane's Castle; *Mr. S. A. Stewart.* Glenarm; *Ir. Flor.* Woods at Roe Park; Moneymore; and Garvagh, Derry; *D. M.*

ORDER XLVIII.—SCROPHULARIACEÆ.

*VERBASCUM* Linn.

1. **V. Thapsus** (Linn.)—*Great Mullein.*

Districts 1 2 3 4 5 6 7 - 9 10 - 12

Lat. 51°-56°. From South to North of Ireland.

Type in Great Britain, English, inclining to British.

Banks, fields, and waste places; frequent. *Fl.* June, July.

Rather rare in the north and west of Ireland, and probably introduced in some of its localities.

2. † **V. Blattaria** (Linn.)—*Moth Mullein.*

Districts 1 2 - 4 - - - - - - - -

Lat. 51°-53°. Extreme South of Ireland.

Type in Great Britain, English, if native.

Road-sides, waste places, quarries, &c.; very rare. *Fl.* August.

1 and 2. In several places near Cork, Bandon, &c., in gardens, waste ground, on walls, by newly-made roads and quarries; once found (some scores of plants) in a pasture-field opposite Monkstown, but is not persistent in any of its localities; *I. C.* Abundant on rubbish and about quarries at Queenstown; and by the old town-wall at Bandon; *Mr. J. Sullivan.* Ballydine, Tipperary; *Miss S. Grubb.* Clonmel (C. Jacob); *I. C.*—4. In county. Wexford; *Mr. J. Morrison.*

There is little doubt that this plant has escaped from garden cultivation, but it seems to be quite established in the neighbourhood of Cork. Mr. Carroll describes it as varying with white or pale purplish flowers, and considers it much more frequent than *V. virgatum* in the south of Ireland.

3. † *V. virgatum* (With.)—*Primrose-leaved Mullein*.

Districts 1 2 - - - - -

Lat. 51°–52°. South-west of Ireland—Kerry and Cork.

Type in Great Britain, Atlantic, if native.

Waste places, quarries, fields, road-sides, &c.; very rare.  
*Fl.* August.1. On the College grounds, at West Green-lane, near Kenmare; *Mackay Cat. Ir.* and *Spec. in Herb.* 1—2. Very rare near Cork; only once gathered at Cusquinny, by Mr. T. Wright; *I. C.*Mr. Carroll believes that nearly all the localities given for *V. virgatum*, in the "Flora of Cork," belong to *V. Blattaria*.[*V. nigrum* (Linn.) is reported as found by Miss Grubb on Suir Island, Clonmel, where it is supposed to have been introduced.]*DIGITALIS* Linn.1. *D. purpurea* (Linn.)—*Fox-glove*.

Districts 1 2 3 4 5 6 7 8 9 10 11 12

Lat. 51°–56°. Throughout Ireland.

Type in Great Britain, British.

Heaths, woods, banks, &c; frequent on siliceous soils.  
*Fl.* June to August.

Very rare on limestone, unless where there is some admixture of silex.

Ranges from sea-level to 1200 feet in Derry.

*ANTIRRHINUM* Linn.1. † *A. Orontium* (Linn.)—*Lesser Snap-dragon*.

Districts 1 2 - - 5 6 - - - - -

Lat. 52°–53°. South, West, and East of Ireland.

Type in Great Britain, English.

Waste and cultivated ground, on a light soil; very rare.  
*Fl.* July, August.1 and 2. Fields near Monkstown; *Drummond*. Near the Ovens; west of Cove; near Leemount and Carrigrohane Castle; Little Island; Shanbally and Carrigaline Castle; Newtown, Rosscarberry; *Flor. Cork*. Monkstown; Ballin-

collig; Queenstown, &c., but not plentiful; *I. C.*—5. In a corn-field at Ballasoley Park, near Dundrum, Dublin! *Mr. D. Orr*, 1849.—6. Miltown Malbay! Clare, but rare; *Prof. Harvey*.

A weed of cultivation, probably introduced with agricultural seeds many years ago.

[*Antirrhinum majus* (Linn.) is naturalized in many places on walls in the neighbourhood of houses and gardens, but does not extend to any wild-looking localities.]

### LINARIA Linn.

#### 1. *L. Elatine* (Mill.)—*Fluellin*.

Districts 1 2 - - - 6 - - - - -  
 Lat. 51°–56°. South and West of Ireland.

Type in Great Britain, English.

Cultivated fields; very rare. *Fl.* July to September.

1 and 2. About Glasheen, near Cove; near Ballinhassig; Carrigaline, and in Great Island; about Monkstown and Shanbally; Carbery; *Flor. Cork*. By the side of the Bandon road; *Drummond*. Strand at Ringabella, Cork Harbour, and about Cork in both divisions of the county; *I. C.*—6. Corn-fields near Rathkeale, Limerick; *Flor. Hib.* Cultivated fields at Castle Taylor, Galway; *A. G. M.*

#### 2. *L. minor* (Desf.)—*Lesser Toad-flax*.

Districts - 2 3 4 5 - - - - -  
 Lat. 51°–54°. South and East of Ireland.

Type in Great Britain, English, inclining to Germanic.

Cultivated and waste ground; very rare. *Fl.* June to August.

2. By the new road, near Sunday's Well, Cork, sparingly! *Drummond*. Abundant near Cork; *D. M.* A weed in gardens at Summer-hill and Sunday's Well; *I. C.* Near the City Jail; *Flor. Cork*.—3. Waste ground near Carlow; *Mr. J. Morrison*.—4. Once found on a newly-made railway embankment near Enniscorthy; *Mr. J. Morrison*. 5. Stillorgan, Dublin; *Mr. Simon Foot*.

Appears to have increased of late years near Cork.

3. *L. repens* (Ait.)—*Creeping Blue Toad-flax*.

Districts 1 - 3 - 5 - - - - -

Lat. 51°-54°. South and East of Ireland.

Type in Great Britain, English.

Banks and road-sides; very rare. *Fl.* July to September.

1. On the refuse of an old slate quarry, and by the old castle near it, a mile below Bandon; 1805, *Flor. Hib.* Roadside, half way between Bandon and Dunmanway; *Drummond*. Innishannon, Cork; *Mr. T. Wright*.—3. On a low stone wall behind a hedge near Carlow; *Mr. John Sim*.—5. On a bank by the Dodder at Bushy Park: *D. M.* Not found in Antrim by any other botanist since Mr. Templeton.

*Var. β sepium* (*L. sepium* Allm).

1. Near Bandon; *Prof. Allman*. This is probably a hybrid between *L. repens* and *L. vulgaris*.

4. *L. vulgaris* (Mill.)—*Yellow Toad-flax*.

Districts 1 2 3 4 5 - 7 8 - - - 12

Lat. 51°-56°. From South to North of Ireland.

Type in Great Britain, British or English.

Hedges, fields, quarries, &c.; rather rare. *Fl.* June, July.

1 and 2. Many places about Cork; *Flor. Cork* and *I.C.*—3. Near the Dinan-bridge, Kilkenny; *Rev. S. Madden*.—4. Murrough of Wicklow; *D. M.*—5. Sandy fields between Baldoyle and Howth; *Ir. Flor.* Knockmaroon hill, &c.; *D. M.*—7. Fields near Lough Sheelin, Westmeath; *Miss E. Reynell*.—8. Near Galway, a little to the west of the town; *Prof. Melville*.—12. Very local in Ulster, but occurs in the three counties of Down, Antrim (several places, *D. M.*), and Derry; *Flor. Ulst.*

Rare or wanting in many parts of the west of Ireland, and more frequent near the coast than elsewhere.

[*L. Cymbalaria* (Mill.) (*Ivy-leaved Toad-flax*), is well established on old walls in many parts of Ireland, but is never seen far from gardens or houses.]



*SCROPHULARIA* Linn.

1. *S. nodosa* (Linn.)—*Knotted Figwort.*

Districts 1 2 3 4 5 6 7 8 9 10 11 12

Lat. 51°–56°. Throughout Ireland.

Type in Great Britain, British.

Hedge banks, woods, and waste places, frequent. *Fl.* July, August.

2. *S. aquatica* (Linn.)—*Water Figwort.*

Districts 1 2 - 4 5 - - 8 9 - - 12

Lat. 51°–56°. From South to North of Ireland.

Type in Great Britain, English.

Wet places, ditch banks, &c., rather local. *Fl.* July, August.

1 and 2. Rather rare in the county of Cork; *Flor. Cork*; but occurs in both divisions; *I. C.* Frequent near Fermoy; *Mr. T. Chandlee*.—2. In Waterford; *I. C.* South Tipperary; *Miss S. Grubb*.—4. Near Enniscorthy, Wexford; *Rev. S. Madden*. In several places in Wicklow; *D. M.*—5. Many places in Dublin, Kildare and Louth; *D. M.*—8. To the west of Galway; *Prof. Melville*.—9. Among ruins at Ardnaree, opposite Ballina; *A. G. M.* Near Sligo; *the late Mr. J. Wynne*.—12. Tullamore Park, and near Belfast; *Flor. Ulst.* Frequent in Derry and Antrim; *D. M.* Probably overlooked in the districts which are not filled in.

*Obs.*—*S. Ehrharti* (Stev.) is included in the “*Flora of Ulster*” as having been found by Dr. Mateer in the bog meadows at Belfast, and by Mr. Thompson at the river-side between Edenderry and Purdysburn; but Dr. Dickie informs us that he has not seen any Irish specimens.

*S. Scorodonia* (Linn.) is recorded in Smith’s “*Kerry*” as growing on the sea coast near the Magherie Islands in Tralee Bay. This is, we believe, the only authority for its occurrence in Ireland, and the locality has not been verified by recent observation.

*Obs.* *Limosella aquatica* (Linn.) was supposed to have been found in Connemara; *Wade Rar.*; but has not come under the notice of any other botanist.

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

Districts 1 2 - 4 5 6 7 8 9 10 11 12  
 Lat. 51°–56°. Throughout Ireland.

Type in Great Britain, British.

Woods and heaths; frequent. *Fl.* June to August.

*Var. β ericetorum* (Oliv.)

8. Among grass, &c., near Roundstone, and on Urrisbeg, Connemara; and (9.) On Ben-Bulben, Sligo, to 1000 or 1500 feet; *Prof. Oliver*. “*Phytologist*,” O. S., vol. iv., pp. 678 and 1078.

*Var. γ montanum* (Johnst.)

1. On the top of Mangerton; *Flor. Hib.*—4. On the Great Sugar Loaf, Wicklow; *Mr. J. Ball.*—6.? On high ground in Burren, frequent; *Mr. F. J. Foot*, who believes that this is the plant recorded by him under the name of “*M. sylvaticum*.”—8. On Croagh Patrick; *Flor. Hib.* Nephin; *Flor. Ulst.* On Cor Slieve, in Erris; *Mr. J. Ball.*—9. Ben-Bulben; *Flor. Ulst.* Muckish (to 2000 feet), and Erigal (from 2000 to 2280 feet) *Flor. Ulst.* Some of these localities may belong to the former variety.

From sea level to 2280 feet (*var. montanum*).

2. *M. sylvaticum* (Linn.)—*Small-flowered Cow-wheat*.

District - - - - - 12  
 Lat. 54°–56°. North-east of Ireland.

Type in Great Britain, Scottish.

Upland woods; rare and very local. *Fl.* July.

12. Tullamore Park (Mr. Thompson); Ballyliff Glen, near Larne and near Glenarm; Glen of Altmore, Cushendall; Deer Park, at Glenarm! Cave Hill; Woodburn Glen and Craig Hill, near Ballyclare; *Flor. Ulst.* On Errigal banks facing north, above Garvagh, Derry; Glenariff and Glenarm, Antrim; *D. M.*

Mr. Foot is uncertain whether he found this or *M. montanum* in Burren; unfortunately no specimens were preserved.

Ranges from 200 to 600 feet in Antrim.

[*Mimulus luteus*, Willd., a native of America, is well established by the river below Innoshannon, and in a bog near Myrtle-ville, Cork; *I. C.* It is growing also on a rock near the Salmon-weir at Ballyshannon; *A. G. M.*, and has been planted in Kelly's Glen, Wicklow; *Prof. Harvey.*]

*PEDICULARIS* Linn.

1. *P. palustris* (Linn.)—*Marsh Red-rattle.*

Districts 1 2 3 4 5 6 7 8 9 10 11 12

Lat. 51°–56°. Throughout Ireland.

Type in Great Britain, British.

Marshes and boggy meadows; frequent. *Fl.* June, July.

Ranges from sea-level to 1400 feet in Derry.

2. *P. sylvatica* (Linn.)—*Dwarf Red-rattle.*

Districts 1 2 3 4 5 6 7 8 9 10 - 12

Lat. 51°–56°. Throughout Ireland.

Type in Great Britain, British.

Moist pastures and heaths; frequent. *Fl.* June, July.

From sea-level to 2500 feet in Wicklow (*D. M.*)

*RHINANTHUS* Linn.

1. *R. Crista-galli* (Linn.)—*Yellow Rattle.*

Districts 1 2 3 4 5 6 7 8 9 - 11 12

Lat. 51°–56°. Throughout Ireland.

Type in Great Britain, British.

Meadows and pastures; frequent. *Fl.* June.

*EUFragIA* Griseb.

1. *E. viscosa* (Benth.)—*Marsh Eye-bright.*

*Bartsia viscosa* (Linn.) Brit. Flor., Flor. Hib., &c.

Districts 1 2 - - - - - - - - - -

Lat. 51°–53°. South-west of Ireland—Kerry and Cork.

Type in Great Britain, Atlantic. ✓

Boggy pastures; very local. *Fl.* August.

1 and 2. In many places in Kerry and South-west Cork. At Calnafersy and near Dingle; at Ballylickey, near Bantry; *Mackay Cat. Ir.* At Valentia, Kerry; *Rev. S. Madden.*

Kenmare; *Prof. Harvey*. Near Miltown, and about Castlemaine Harbour; *Mr. W. Andrews*. At Dingle and near Brandon; *D. M.* About Bandon, Kinsale, and Ballinhassig; near Middleton, and in Ballinoe and Ballincarrig bogs, near Cork, in clayey soils; Great Island; *Flor. Cork*. Many places near Cork, but not plentiful; *I. C.* Cloghroe, near Cork; *Wade Rar.* Abundant near Dunmanway; *Drummond*.—2. Near the national school at Kildinan, Fermoy, in some plenty; *Mr. T. Chandlee*.

*EUPHRASIA* Linn.

1. *E. officinalis* (Linn.)—*Common Eye-bright*.

Districts 1 2 3 4 5 6 7 8 9 10 11 12

Lat. 51°–56°. Throughout Ireland.

Type in Great Britain, British.

Pastures and heaths; common. *Fl.* June to August.

Very variable. A slender form found in Great Arran Island (“*Phytologist*” iv., 679), and about Castle Taylor, Galway, is pronounced by M. Boreau to be the *E. cuprea* of Jordan.

Ranges from sea-level to 2400 feet on Errigal (*Flor. Ulst.*).

2. *E. Odontites* (Linn.)—*Red Bartsia*.

*Bartsia Odontites* (Huds.), Brit. Flor., Flor. Hib., &c.

Districts 1 2 3 4 5 6 7 8 9 10 11 12

Lat. 51°–56°. Throughout Ireland.

Type in Great Britain, British.

Fields, road-sides, and waste places; frequent. *Fl.* July, August.

From sea-level to 1300 feet in Derry.

*SIBTHORPIA* Linn.

1. *S. europæa* (Linn.)—*Creeping Sibthorpia*.

District 1 - - - - -

Lat. 52°–53°. South-west of Ireland—Kerry only.

Type in Great Britain, Atlantic.

Moist shady places; very rare and local. *Fl.* June to September.

1. On the north side of Connor Hill, near Dingle; *Mackay Cat. Ir.* At Tralee; *Mr. E. Newman.* Plentiful from Castle Gregory to the base of Brandon mountain; *D. M.*

*VERONICA* Linn.

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

Districts 1 2 - 4 5 6 7 8 9 10 11 12

Lat. 51°–56°. Throughout Ireland.

Type in Great Britain, British.

Wet boggy places; frequent, but rather local. *Fl.* June to August.

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

Districts 1 2 3 4 5 6 7 8 9 10 11 12

Lat. 51°–56°. Throughout Ireland.

Type in Great Britain, British.

Ditches and watery places; frequent. *Fl.* June to August.

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

Districts 1 2 3 4 5 6 7 8 9 10 11 12

Lat. 51°–56°. Throughout Ireland.

Type in Great Britain, British.

Ditches, streams, &c.; very common. *Fl.* June to Sept.

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

Districts 1 2 3 4 5 6 7 8 9 10 11 12

Lat. 51°–56°. Throughout Ireland.

Type in Great Britain, British.

Woods, banks, pastures, &c.; common. *Fl.* May, June.

5. *V. montana* (Linn.)—*Mountain Speedwell.*

Districts 1 2 - 4 5 - 7 8 9 10 11 12

Lat. 51°–56°. Throughout Ireland.

Type in Great Britain, British, inclining to English.

Woods and shady places; rather rare. *Fl.* May, June.

1. On the mountains of Kerry (*Veronica procumbens maxima*); *Lhwyd*, 1699. Killarney; *C. C. B.*—1 and 2. Rather rare near Cork; *Flor. Cork* and *I. C.*—2. Blarney;

*Prof. Harvey*. Several places near Fermoy; *Mr. T. Chandlee*.—  
 4. Powerscourt, Wicklow; *D. M.*—5. Abundant at Woodlands;  
*Wade Dubl.* And other places near Dublin! *Flor. Hib.*—  
 7. Wood at Rosemount, West Meath; *Miss E. Reynell*.—  
 8. Ballinahinch, Connemara; *Wade Rar.* On the moun-  
 tain behind the Inn at Maam; *C. C. B.*—9. Strabane Glen,  
 Tyrone; *Admiral Jones*. In Sligo; *the late Mr. J. Wynne*.—  
 10. Wood at Loughgall Manor; *A. G. M.*—11. Shore near  
 Merville, Donegal; *Mr. C. Moore*.—12. At Newcastle, Down;  
 Holywood, and several places near Belfast; *Flor. Ulst.* By  
 the Roe above Newtownlimavady, and other places, not  
 unfrequent in Derry; Shane's Castle, woods, &c., in Antrim;  
*D. M.*

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

Districts 1 2 3 4 5 6 7 8 9 - 11 12  
 Lat. 51°–56°. Throughout Ireland.

Type in Great Britain, British.

Heaths and banks, on a light soil; frequent. *Fl.* June to  
 August.

*Var. β glabra*, Bab.

Sallagh Braes, near Larne, Antrim; *Flor. Ulst.*

Ranges from sea-level to 1300 feet on the basalt, in Derry  
 (*D. M.*)

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

Districts 1 2 3 4 5 6 7 8 9 10 11 12  
 Lat. 51°–56°. Throughout Ireland.

Type in Great Britain, British.

Moist pastures, cultivated and waste ground, &c.; common.  
*Fl.* May to July.

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

Districts 1 2 3 4 5 6 7 8 9 10 11 12  
 Lat. 51°–56°. Throughout Ireland.

Type in Great Britain, British.

Dry pastures, banks, cultivated land, &c.; common. *Fl.*  
 April to July.

Ranges from sea-level to 1200 feet in Derry.

9. \**V. peregrina* (Linn.)—*Wandering Speedwell*.

Districts - - - - 6 - - - 10 - 12

Cultivated and waste ground, orchards, gardens, &c.; rare.  
*Fl.* May, June.

Naturalized and increasing in cultivated land. This plant was first noticed in 1836, growing abundantly within the demesne of Barnescourt, near Strabane, and has since appeared in several localities between that place and Londonderry; it has also been observed in the neighbourhood of Belfast by the Rev. W. M. Hind.

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

Districts 1 2 3 4 5 6 7 8 9 10 11 12

Lat. 51°–56°. Throughout Ireland.

Type in Great Britain, British.

Cultivated land, hedge-banks, &c.; common. *Fl.* April to September.

Far scarcer than *V. polita*, and apparently rare near Cork; *I. C.*

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

*V. agrestis* var., Brit. Flor. and Bentham.

Districts 1 2 3 4 5 6 7 8 9 10 11 12

Lat. 51°–56°. Throughout Ireland.

Type in Great Britain, British, inclining to English.

Cultivated ground and road-sides; common. *Fl.* April to September.

12. \**V. Buxbaumii* (Ten.)—*Persian Speedwell*.

Districts 1 2 - 4 5 6 - - - 10 - 12

Cultivated land, broken ground, and waste places; recently introduced, and now become a weed in many parts of the country. *Fl.* March to September.

Reaches in the west to Castle Taylor, Galway; *A. G. M.* And the cliffs of Ballybunnion, at the mouth of the Shannon; *Prof. Harvey*. A weed in the garden at Loughgall Manor, Armagh; *A. G. M.* In Derry, Antrim, and Down; *Flor. Ulst.* Common about Cork; *I. C.* Dublin; *D. M.*; and in many intermediate localities.

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

Districts 1 2 3 4 5 6 - - - 10 11 12

Lat. 51°-56°. Throughout Ireland.

Type in Great Britain, British.

Fields, banks, and waste places; common. *Fl.* April to June.

Probably occurs in all the districts, though not noticed in 7, 8, and 9.

*Obs.*—*Veronica triphyllos* (Linn.) “Strand near Sandymount, rare (Dr. Scott);” *Flor. Hib.* “Between Dublin and Merrion, by the way-side;” *Irish Flora*. Some other species has no doubt been mistaken for it.

## ORDER XLIX.—LABIATÆ.

*MENTHA* Linn.1. † *M. rotundifolia* (Linn.)—*Round-leaved Mint*.

Districts 1 2 - 4 5 - - 8 - - - 12

Lat. 51°-55°. Various parts of Ireland.

Type in Great Britain, English.

Banks, waste places, and among bushes; rare. *Fl.* August, September.

1 and 2. Several places in county Cork, and often apparently wild; *I. C.* Carlisle Fort; between Cove and Carrigaloe; Mountdesart; near Belvelly Castle, Great Island; *Flor. Cork*. Road-side beyond Rafeen; between Macroom and Inchigeela; and near Castletown, Berehaven; *I. C.* Near Kilcrea Abbey; *Mr. T. Wright*.—2. At Ballyderoon Castle, and near Aherne; and at Quirk’s Castle, near Fermoy; *Mr. T. Chandlee*. River-side near Kilsheelan, Tipperary; *Miss S. Grubb*.—4. Fethard, Wexford; *Mr. J. Morrison*. Among ruins at Glendalough; *Ir. Flor.* At Roundwood, near Glendalough; *Mr. E. Newman*.—5. Between Ballinascornie Gap and Castle Kelly; *Mr. D. Orr*.—8. Roundstone, Connemara (the late W. MacAlla); *I. C.*—



12. On bushy banks by the river, below the flour mills at Crumlin, Antrim; *D. M.* In Glendarragh, near Antrim, sparingly; *D. M.* Lough-head, Island Magee; Ballymacollan, Bangor; Crawfurdsburn; *Flor. Belf.*

Probably introduced in some of the localities. Ranges from south to north, but is most abundant in the south of Ireland.

*Obs.*—*M. sylvestris* (Linn.) is supposed to have been found near Carrigaline, Cork (*Drummond*). Near the pond at Dodgesglen (*Mr. J. Sullivan*); and in ditches by the way-side near Rosstrevor, Down (*Flor. Hib.*). The *Rev. S. Madden* also has a memorandum that he found it at Valentia, Kerry; but we fear that *M. rotundifolia* has been gathered in these localities. Specimens collected at Carrigaline by Mr. Drummond, and since by Mr. Carroll, belong to *M. rotundifolia*.

[*M. viridis* (Linn.), *Spear Mint*. On the edge of a bog between Robertstown and Phillipstown, King's county; "*Irish Flora*." Wet waste ground, Ballygowan; "*Flora Belfastiensis*." Doubtless an escape from cultivation in both localities].

2. † *M. piperita* (Sm.)—*Pepper-Mint*.

Districts 1 (2) - - (5) - - 8 - - - 12  
 Lat. 51°-56°. Various parts of Ireland; doubtful native.  
 Type in Great Britain, English.

Wet and marshy places; very rare. *Fl.* July, August.

1. Minane-bridge, near Ringabella, Cork; *I. C.* By the Lee, near Carrigrohane Castle; *Drummond*. By the river Lee, a mile and a-half above Cork, plentifully, *I. C.*—2. Near the Spa, Clonmel; (*Miss A. Taylor*); probably naturalized; *I. C.*—5. Roadside near Ballitore, Kildare; *I. C.*—8. Banks of rivulets at Streamstown, Connemara; *Ir. Flor.*—12. By the river west side of Carnmoney Hill; rivulet near Carnmoney Church; shore of Lough Neagh, near Massareene Park; by a stream called Curley-burn, near Newtownlimavady; *Flor. Ulst.* By the old road near Muff, in Derry; *D. M.*

3. *M. aquatica* (Linn.)—*Common Water-Mint*.*M. hirsuta* (Linn.), *Flor. Hib.*

Districts 1 2 3 4 5 6 7 8 9 10 11 12

Lat. 51°–56°. Throughout Ireland.

Type in Great Britain, British.

Watery places; very common. *Fl.* July to September.4? *M. sativa* (Linn.)—*Marsh-Mint*.*M. hirsuta* var.; *Flor. Hib.*

Districts 1 2 3 4 5 - - 8 9 10 - 12

Lat. 51°–56°. From South to North of Ireland.

Type in Great Britain, British, inclining to English.

Wet places, banks of rivers, &c.; rather rare. *Fl.* July to September.

1 and 2. In both divisions of the county Cork; *I. C.* "Common"; *Flor. Cork*.—2. Corrin Bog, and by the Blackwater, near Fermoy; *Mr. T. Chandlee*. In the County of Waterford; *I. C.*—5. Straffan, Kildare; *Mr. J. Douglas*.—8 and 9. In several places by the Moy, and on hill sides about Foxford, Mayo; *A. G. M.*—10. Abundant on the margin of the lake at Farnham, Cavan; *Flor. Hib.* Banks of Lough Erne, in Fermanagh (*M. acutifolia*); *Dr. Scott* in *Flor. Hib.*—12. Very rare in Ulster; Moneymore; shores of Lough Neagh; *Flor. Ulst.* Lagan Canal and Ballycroghan Dam; *Flor. Belf.* Woodburn and Cherry Valley; *Mr. S. A. Stewart*.

Except in the inflorescence being whorled instead of capitate, we can find no character by which *M. sativa* can be distinguished as a species from *M. aquatica*.

*Var. β rubra* (*M. rubra* Smith).

Districts 1 - - 4 - - - - - 12

Wet places, hedges, and banks of rivers; rare.

1. Near Carrigrohane Castle; *Drummond*. By the south Bride, in Cork; *I. C.*—3. Ballintrain, Carlow; *I. C.*—4. In Wexford; *I. C.* Between the chapel of Kilmacannick, and the Glen of Downs; *Flor. Hib.* Enniskerry river, in gravelly spots; *Ir. Flor.*—12. Cave Hill, Belfast; *Mr. J. Ball*. Lough

Mourne; Eden; Castle Chichester; Ballydrain; *Flor. Belf.* Banks of the river Roe, between Newtownlimavady and Lough Foyle, and other places in Derry; apparently indigenous; *D. M.*

5. *M. arvensis* (Linn.)—*Corn Mint.*

Districts 1 2 - 4 5 6 7 8 9 - - 12

Lat. 51°-56°. Throughout Ireland.

Type in Great Britain, British.

Cultivated land, way-sides, and waste places; frequent. *Fl.* August, September.

The form *M. agrestis* (Smith), which is hardly distinguishable as a variety, is also not unfrequent.

6. *M. Pulegium* (Linn.)—*Penny-royal.*

Districts 1 2 - 4 - 6 - - - - 12

Lat. 51°-55°. From South to North of Ireland.

Type in Great Britain, English.

Marshy meadows and damp waste places; local. *Fl.* August, September.

1. In moist ground about Lixnaw in great quantities; *Smith's "Kerry."* Bunratty, and in Earl Kenmare's park, near Killarney; *Wade Rar.*—2. Frequent on the banks of the Blackwater; *Smith's "Cork."*—1 and 2. Abundant in some parts of Cork; *I. C.* Plentiful near Calnafersy, &c.; *Flor. Hib.* Abundant at Ballycotton; *Drummond.* Great Island; Lough of Cork; near Kilbree, Imokilly; *Flor. Cork.*—4. Fethard, Wexford; *Mr. J. Morrison.* In Wicklow, at the base of the Great Sugar Loaf; *D. M.*—6. In the churchyard of Ennis; *Wade Rar.* Near the river at Hermitage, Ennis; *Rev. T. Warren.*—12. Abundant in wet pastures at the foot of Tullybranagan mountain, Down; *Ir. Flor.* At the lower end of Woodburn glen, near Carrickfergus; *Flor. Ulst.* By Lough Neagh, between Antrim and Crumlin; *Mr. S. A. Stewart.* Abundant on water meadows by the Bann, near Toombridge; and on the Creagh Bog, Lough Beg, Derry; *D. M.*

*LYCOPUS* Linn.1. *L. europæus* (Linn.)—*Gipsy-wort*.

Districts 1 2 3 4 5 6 - 8 9 10 11 12

Lat. 51°–56°. Throughout Ireland.

Type in Great Britain, British, inclining to English.

Ditches and watery places; frequent, but rather local.  
*Fl.* July, August.

Not a common plant, but appears to be widely distributed, occurring in the north, south, east, and west of Ireland.

*SALVIA* Linn.1. *S. Verbenaca* (Linn.)—*Clary*.

Districts - 2 3 4 5 6 - - - - -

Lat. 51°–54°. South and Middle of Ireland.

Type in Great Britain, English.

Dry banks, way-sides, and pastures; rare and local. *Fl.*  
June to September.2. Clay Castle, near Youghal; Ballinacurra, Middleton, on sandy soil by the river; *Flor. Cork*. Seen by Mr. Carroll in the northern division only of the county—2. Plentiful between Youghal Bay and Ardmore, Waterford; *Mr. T. Wright*.—3. Near Kilkenny, half a mile west of the town; *Mr. John Sim*. Lackenhill, Kilkenny; *Rev. S. Madden*.—4. Murrough of Wicklow; *D. M.*—5. In many places near Dublin! *Wade, &c.*—6. Askeaton Castle, Limerick; *Prof. Harvey*.*ORIGANUM* Linn.1. *O. vulgare* (Linn.)—*Wild Marjoram*.

Districts 1 2 3 4 5 6 7 - - 10 - 12

Lat. 51°–55°. South and Middle of Ireland chiefly.

Type in Great Britain, British, inclining to English.

Dry bushy banks, chiefly on a limestone soil; rather local.  
*Fl.* August.1 and 2. Rare about Cork; *Flor. Cork*, but occurs in both divisions of the county; *I. C.*—2. In Waterford; *I. C.* Near Fermoy, but rare; *Mr. T. Chandlee*. Tipperary; *Miss S. Grubb*.—3. Kilmacow; *Mr. T. Chandlee*. Near Riverview, Kilkenny; *Rev. S. Madden*.—4, 5, 6, 7. In most of the mid-

land counties, extending as far west as Garryland Wood, near Gort. Rare in Ulster.—10. Near Loughgall, Armagh; *A. G. M.*—12. Ballygallan and Ballycarry; *Flor. Ulst.* Ruins of Portavoe House; *Flor. Belf.* Sparingly by the Faughan, near Fincairn, Derry. By the river in Shane's Castle demesne, and between Larne and Carrickfergus, Antrim; *D. M.*

*THYMUS* Linn.

1. *T. Serpyllum* (Linn.)—*Wild Thyme.*

Districts 1 2 3 4 5 6 7 8 9 10 11 12

Lat. 51°–56°. Throughout Ireland.

Type in Great Britain, British.

Pastures and banks; common. *Fl.* June to August.

The form *T. Chamædryis* (Fries) has not come under our notice, though likely enough to occur.

Ranges from sea-level to 1300 feet in Derry.

*CALAMINTHA* Moench.

1. *C. officinalis* (Moench.)—*Common Calamint.*

*Thymus Calamintha* (Scop.), *Flor. Hib.*

Districts 1 2 3 4 5 6 - 8 9 - 11 -

Lat. 51°–56°. South and Middle of Ireland chiefly.

Type in Great Britain, English.

Waysides, rocks, walls, and waste places, chiefly on a limestone soil; rather rare and local. *Fl.* July to September.

1. Killarney; *C. C. B.* Kenmare; *Prof. Harvey.*—1 and 2. Several places about Cork; *Flor. Cork* and *I. C.*—2. Frequent on a limestone soil near Fermoy; *Mr. T. Chandlee* Waterford; *I. C.* Near Clonmel; *Miss S. Grubb.*—3. Two or three places in Kilkenny; *Rev. S. Madden*—4 and 5. Wicklow, Dublin, Meath, and Kildare, several localities. Near Drogheda; *Mr. J. B. Hamilton.*—6. Abundant in Burren; *Mr. F. J. Foot.*, and occurs also in East Galway; and Isles of Arran—8. West Galway, ruins of Ochnanew Castle, near Oughterard, &c.—9. Shores of Lough Ree, &c., in Roscommon; *Mr. F. J. Foot.* At Cong, Mayo; *Wade Gallovid.* Very rare in Ulster.—11. On a dry bank by a footpath leading from the Moville road to the Foyle; *D. M.*

2. *C. Nepeta* (Clairv.)—*Lesser Calamint*.

*C. officinalis*, var. Bentham.

District 1 - - - - -

Lat. 51°–52°. South-west of Ireland—Kerry and ? Cork.

Type in Great Britain, English.

Dry banks; very rare. *Fl.* July, August.

1. Near Killarney (probably near Mucruss); *C. C. B.* (Professor Babington considers his specimen identical with the *C. nepetoides* of Grenier and Godron; "*Flore de France*," ii., p. 665. About Glandore, on dry banks (*Mr. R. W. Townsend*); *Flor. Cork*. Not seen by Dr. Power, nor by Mr. Carroll.

3. *C. Acinos* (Clairv.)—*Basil-Thyme*.

Districts - - - 4 5 - - - - -

Lat. 52° or 53°–54°. East of Ireland.

Type in Great Britain, British, inclining to English.

Cultivated fields, &c., on a light soil; very rare. *Fl.* July, August.

3. Kilkenny (*Mr. Tighe*); *Dr. Hinks* (*vide I. C.*)—4. On the Murrough of Wicklow; on gravelly banks, sparingly; *D. M.*—5. Near Athy (*Miss Trench*), and in a sandy field at Portmarnock; *Mackay Addenda*. Abundant on gravelly fields near Thomastown, Kildare; *D. M.*

4. *C. Clinopodium* (Benth.)—*Wild Basil*.

*Clinopodium vulgare* (Linn.) *Flor. Hib.*

Districts 1 - 3 4 5 - - - - 11 -

Lat. 51°–56°. South, East, and North of Ireland.

Type in Great Britain, British, inclining to English.

Dry bushy places; very rare. *Fl.* July, August.

1. On several of the islands in the lower Lake of Killarney; *Flor. Hib.* By a park wall along the northern shore of Oysterhaven, near Kinsale (*Dr. Power*); *Flor. Cork*. Not seen in Cork by Messrs. Carroll, Murphy, and Sullivan.—3. Tullatyrne, Johnswell mountains; and Inch, Kilkenny; *Rev. S. Madden*.—4. Hilly ground between Enniskerry and Bray; *Flor. Hib.* Road-side between Knockmaroon and Lucan; old glens about Glasnevin; *Ir. Flor.*—11. On the

west bank of the Foyle, near Londonderry, sparingly;  
*D. M.*

[*Melissa officinalis* (Linn.) has been found among limestone rocks below Carrigaline and Ringaskiddy, also on Great Island, Cork, but is not well established.]

### SCUTELLARIA Linn.

#### 1. *S. galericulata* (Linn.)—*Common Skull-cap.*

Districts 1 2 3 4 5 6 7 8 9 10 - 12

Lat. 51°-56°. Throughout Ireland.

Type in Great Britain, British.

Banks of rivers and lakes, and in bogs; rather local *Fl.*  
July, August.

Not a common plant, though widely distributed. It is most frequent on the stony margins of lakes, and appears to be scarcer on the east than on the west side of Ireland.

#### 2. *S. minor* (Linn.)—*Lesser Skull-cap.*

Districts 1 2 3 4 - 6 - 8 9 - - -

Lat. 51°-54°. South and West of Ireland, chiefly.

Type in Great Britain, English, inclining to Atlantic.

Wet and boggy places; chiefly in the west. *Fl.* July, August.

Frequent in Districts 1, 2, 6, 8, and 9.—3. Near Kilmacow, Kilkenny; *Mr. T. Chandlee*.—4. Plentiful in Glenmalure, Wicklow; *D. M.* Near Rathdrum and Lough Bray; *Ir. Flor.*

### PRUNELLA Linn.

#### 2. *P. vulgaris* (Linn.)—*Self-heal.*

Districts 1 2 3 4 5 6 7 8 9 10 11 12

Lat. 51°-56°. Throughout Ireland.

Type in Great Britain, British.

Damp pastures; frequent. *Fl.* July, August.

### NEPETA Linn.

#### 1. † *N. Cataria* (Linn.)—*Cat-Mint.*

Districts 1 2 3 - 5 6 - 8 9 - - 12

Lat. 51°-56°. South and Middle of Ireland, chiefly.

Type in Great Britain, English, inclining to Germanic.

Way-sides, banks, waste places, and ruins; rare. *Fl.* July, August.

1. By the old Abbey of Timoleague; *Drummond*, but not seen recently.—2. Near Clonmel, Tipperary; *Miss S. Grubb*.—3. Danesfort; and Ballykeefe, Kilkenny; *Rev. S. Madden*. Near Carlow (introduced probably); *Mr. J. Morrison*.—5. Bank by the Dodder, above Rathfarnham bridge; *Flor. Hib.* Sandy fields about Rush and Skerries; *Ir. Flor.*—6. By the Shannon, opposite Limerick; *Flor. Hib.* Road-side near Ballyvaughan, Clare; *A. G. M.* West of Lough Rea, in Galway; *Prof. Graham*.—8. Near the town of Galway; *Prof. Balfour*. Between Galway and Oughterard; *D. M.* Between Newport and Castlebar, probably not native; *Mr. J. Ball*.—9. Road-sides at Cong, Mayo (growing with *Calamintha* and *Verbena*); *Wade Gallovid.*—12. Near the hotel at Downhill station; Ballycastle; *Flor. Ulst.* Sandy banks at Benone, Magilligan, Derry; *D. M.*

Probably introduced in many if not all its localities.

## 2. *N. Glechoma* (Benth.)—*Ground Ivy*.

*Glechoma hederacea* (Linn.)

Districts 1 2 3 4 5 6 7 8 9 10 11 12

Lat. 51°–56°. Throughout Ireland.

Type in Great Britain, British.

Woods and hedges; common. *Fl.* April to June.

## *LAMIUM* Linn.

### 1. *L. amplexicaule* (Linn.)—*Henbit*.

Districts 1 2 3 4 5 - - - 9 - - 12

Lat. 51°–56°. From South to North of Ireland.

Type in Great Britain, British.

Sandy fields and waste places, mostly near the sea; rather rare. *Fl.* May to August.

1 and 2. In South and North Cork; *I. C.*—3. In Kilkenny; *Rev. S. Madden*.—4. Abundant on the Murrrough of Wicklow; *D. M.*—5. Not unfrequent about Dublin; *D. M.*—



9. Foxford, Mayo; *A. G. M.*—12. Roddens, Down; Ballycastle; *Flor. Ulst.* Newcastle; *Rev. W. M. Hind.* Bangor; Carrickfergus; *Flor. Belf.* New Forge, Malone; *Mr. J. S. Holden.* By Lough Foyle, Derry; *D. M.*

2. *L. intermedium* (Fries)—*Intermediate Dead-nettle.*

*L. amplexicaule* var. Bentham.

Districts - - - - - 9 - - 12

Lat. 54°–56°. North of Ireland.

Type in Great Britain, Scottish.

Fields and waste places; rare and local. *Fl.* June to September.

9. Near the base of Ben Bulbin, Sligo; *Mr. J. Ball.* Cultivated fields at Mullaghmore, Sligo; *Mr. J. T. Boswell Syme* in *Flor. Ulst.*—12. Near Coleraine, Derry; *Mr. J. Ball.* Magilligan, Derry; and shore at Newtownards, Down; *Mr. S. A. Stewart.* Common in sandy fields about Belfast; *Flor. Belf.*

3. *L. incisum* (Willd)—*Cut-leaved Dead-nettle.*

*L. purpureum* var. Bentham.

Districts 1 2 3 4 5 6 - 8 9 10 - 12

Lat. 51°–56°. Throughout Ireland.

Type in Great Britain, British.

Cultivated ground and waste places; not unfrequent, especially near the coast. *Fl.* April to September.

Far less common than *L. purpureum*, and in the North of Ireland has probably not been sufficiently distinguished from *L. intermedium*. Appears to be rare in Antrim and Derry.

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

Districts 1 2 3 4 5 6 7 8 9 10 11 12

Lat. 51°–56°. Throughout Ireland.

Type in Great Britain, British.

Cultivated land and waste places; common. *Fl.* May to September.

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

Districts (1) - 3 4 5 - 7 - 9 10 - 12

Lat. 51°–56°. Middle and North of Ireland chiefly.

Type in Great Britain, British, inclining to English.

Banks, road-sides, and borders of fields; local, and rare. *Fl.* Spring and Autumn.

1. Very rare and probably introduced in the south; only once found by Mr. Drummond, and seen by Mr. Sullivan in one locality only (at Douglas) near Cork.—3. A single locality at Odogh, in Kilkenny; *Rev. S. Madden*.—4. Enniscorthy, Wexford; *Rev. S. Madden*.—5. Near Ballytore, Kildare, frequent; *I.C.* Glasnevin; Finglas, &c.; *Ir. Flor.* Near Oldcastle, Meath; *D. M.*—7. In several localities in the midland counties; *Mr. F. J. Foot*.—9. Near Sligo; *the late Mr. J. Wynne*.—10. Rossmore Park, Monaghan; *Miss Maffett*. Near Loughgall; *A. G. M.* Hedge near Winey churchyard, Tyrone; *Admiral Jones*.—12. Very local in Ulster; *Flor. Ulst.* Rare in Derry, but abundant near Coleraine. Plentiful in neighbourhood of Antrim; *D. M.*

Not hitherto observed west of the Shannon.

6. *L. Galeobdolon* (Crantz)—*Yellow Weasel-snout*.

*Galeobdolon luteum* (Huds.) Brit. Flor., Flor. Hib.

Districts - - - 4 5 - 7 - - - - 12?

Lat. 52°-54°. East of Ireland chiefly.

Type in Great Britain, English.

Woods and shady places; rare, and very local. *Fl.* May, June.

4. Near Enniscorthy, Wexford; *Mr. J. Morrison*. In the Dargle and Powerscourt woods, Wicklow; *Mackay Cat. Ir.*—5. Among bushes beyond Roper's-rest; *Threlkeld*. Wood at Luttrell's-town (now Woodlands.) Hedges between Ballibogil-bridge and Ashtown; near Cardiff's-bridge, south side; *Wade Dubl.* Near Finglas! *Rev. H. G. Carroll*. Dolphin's-barn; and in a lane above the Grand Canal; *Ir. Flor.* Near the Salmon Leap at Leixlip; *D. M.* Near Rathfarnham; *Dr. Aquilla Smith*.—7. Woods at Lough Ennel, near Mullingar; *Mr. F. J. Foot*.—12? Near Comber (Down), and other places in the northern counties (Mr. Templeton); *Flor. Hib.*; but not included in the Flora of Ulster, and not seen in the north by *D. M.*

[*Leonurus Cardiaca* (Linn.) is recorded by Threlkeld as

found under a wall at Roper's-rest, Dublin. It has also occurred on Great Island; between Foaty and Cork; and near Carrigaline; *Flor. Cork.*, but has not been seen lately; *I. C.* Mr. Carroll found a single root many years ago, and there can be little doubt that the plant was an escape from cultivation, having been long used medicinally.]

### GALEOPSIS Linn.

#### 1. *G. Ladanum* (Linn.)—*Red Hemp-Nettle.*

Districts - - 3 4 5 - - - - -

Lat. 51° or 52°-54°. East of Ireland.

Type in Great Britain, English, inclining to British.

Corn fields and hedge-banks; rare, and very local. *Fl.* August, September.

3. Bellone and Freshford, Kilkenny; *Rev. S. Madden.*—

4. Near Greystones, Wicklow; *D. M.*—5. In crops near the shore at Malahide, plentifully; hedge-banks and borders of fields between Chapelizod and Luttrell's-town, and elsewhere; *Wade Dubl.* Feltrum Hill; lands of Peatown; broken grounds at Howth; *Ir. Flor.* Corn-field on Howth; *Dr. Aquilla Smith.* Gravelly banks near Cardiff's-bridge; side of Knockmaroon hill; *Flor. Hib.* Near Dublin, at Dundrum; *D. M.* Frequent in corn-fields at Ballitore, Kildare; *I. C.* Fields at Straffan; *Mr. J. Douglas.*

Said to have been found near Cork (see *Flor. Cork*), but has not come under the notice of Mr. Carroll.

#### 2. *G. Tetrahit* (Linn.)—*Common Hemp-Nettle.*

Districts 1 2 3 4 5 6 7 8 9 10 11 12

Lat. 51°-56°. Throughout Ireland.

Type in Great Britain, British.

Cultivated land, way-sides, and bushy places; common. *Fl.* July to September,

#### 3. *G. versicolor* (Curt.)—*Large-flowered Hemp-Nettle.*

*G. Tetrahit* var. Bentham.

Districts 1? - 3 - 5 - - 8 9 10 11 12

Lat. 51°-56°. North of Ireland chiefly.

Type in Great Britain, Scottish, inclining to British.

Cultivated ground; local. *Fl.* July, August.

1. In several fields near Castle Island; *Smith's "Kerry"* (No. 94).—3. Fields near the City of Kilkenny; *Rev. S. Madden*.—5. In potato fields near Glasnevin (Mr. Underwood); *Flor. Hib.* Not recently found near Dublin. At Termonfeekin and Tullyesker, near Drogheda; *Mr. J. B. Hamilton*.—8. Near Foxford, Mayo, but not common; *A. G. M.*—9. Sligo; *Flor. Hib.*, and the late *Mr. J. Wynne*.—10. Frequent in Tyrone; *Mr. J. Ball*. Urney; *Admiral Jones*. Tandragee, Armagh; *Rev. E. O'Meara*. Bessmount, Monaghan; *Miss Maffett*.—11. Frequent in Donegal; *Mr. J. Ball* and *Prof. Murphy*.—12. Abundant in many parts of Antrim and Derry, near Dungiven, Kilrea, &c.; *D. M. Lambeg*, Crawfordsburn, &c., *Flor. Ulst.* Bangor and Newtonards; *Flor. Belf.* Once found by Mr. Sullivan near Cork, where probably it had been introduced.

#### STACHYS Linn.

##### 1. *S. Betonica* (Benth.)—*Betony*.

*Betonica officinalis* (Linn.), Brit. Flor., Flor. Hib.

Districts 1 2 3 - 5 6 - - - 10 - 12

Lat. 51°-55°. Ireland, except North-west.

Type in Great Britain, English, inclining to British.

Woods and thickets; very rare. *Fl.* July, August.

1. Woods at Mucruss; *Wade Rar.* Ross Woods, and in several of the islands in the lower lake of Killarney; *Mackay Cat. Ir.* Kenmare; *Prof. Harvey*. In the barony of Bere; *Drummond*.—2. Imokilly (Mr. Drummond); *Flor. Cork*. In a wood on the north side of the river between Cappoquin and Lismore; *Smith's "Waterford"*.—3. Banks by the roadside at Newrath, near Gaul's Mills, in Kilkenny; *Mr. T. Chandlee*.—5. Near Abbotstown, county Dublin; *Wade Rar.*—6. In a wood by the river-side near Corronanagh, Clare; *Wade Rar.*—10. On an old fort near Tartaraghan, Armagh; *Rev. G. Robinson*.—12. Shane's Castle Woods, by Lough Neagh; *Flor. Hib.* Parkmount near Belfast; *Flor. Ulst.* By the river Bann above and below the bridge at Kilrea, Derry, sparingly; *D. M.*

Like many other plants, this has not been found in the north-west of Ireland.

2. *S. sylvatica* (Linn.)—*Hedge Woundwort*.

Districts 1 2 3 4 5 6 7 8 9 10 11 12

Lat. 51°–56°. Throughout Ireland.

Type in Great Britain, British.

Woods, hedges, and shady places; frequent. *Fl.* July. August.

3. *S. palustris* (Linn.)—*Marsh Woundwort*.

Districts 1 2 3 4 5 6 7 8 9 10 11 12

Lat. 51°–56°. Throughout Ireland.

Type in Great Britain, British.

Damp ground and by rivers and ditches; common. *Fl.* July, August.

A common weed among crops in many places.

*Var. β ambigua* (*S. ambigua* Sm.)

1 and 2. Near Cork; *Flor. Cork.*, and seen by Mr. Carroll in the northern division of the county; near Fermoy; *Mr. T. Chandlee*.—3. Archer's grove and Kilmanagh, Kilkenny; *Rev. S. Madden*.—4. Roadside by Allen's factory, Wicklow; *Ir. Flor.*—5. Near Glasnevin; and between Blackrock and Cabinteely; *Mackay Cat. Ir.* About Ballinasorney; *Ir. Flor.* Roadside near St. Margaret's, Dublin; *Mr. D. Orr*. Not unfrequent near Dublin; *Flor. Hib.* About Mansfieldtown, Louth; *Ir. Flor.*—12. Ballyronan; near Colin glen; Blackstaff lane; *Flor. Ulst.* Island Magee, and shore of Lough Neagh opposite; also near Muff, Derry; *D. M.*

4. *S. arvensis* (Linn.)—*Field Woundwort*.

Districts 1 2 3 4 5 6 - 8 9 - 11 12

Lat. 51°–56°. From South to North of Ireland.

Type in Great Britain, British.

Cultivated land; rather local and rare. *Fl.* August, September.

1. Killarney; *C. C. B. Valentia*; *Rev. S. Madden*.—1 and 2. Frequent near Cork; *I. C. and Flor. Cork.* In Waterford;

*I. C.* Tipperary; *Miss S. Grubb*.—3. Near Kilmacow, Kilkenny; *Mr. T. Chandlee*.—5. Near Mansfieldstown, Louth; *Ir. Flor.*—8. About Ballinahinch and Renvyle; Connemara; *Ir. Flor.*—8 and 9. Near Foxford, Mayo; *A. G. M.*—12. Kirkeel, Down; *Ir. Flor.* Frequent in Ulster; *Flor. Ulst.* Not common in Derry, but occurs by the Foyle and along the Bann near Kilrea; abundant in the island of Rathlin, Antrim; *D. M.*

Quite local in its distribution, and unlike many other local species, appears to be more scarce in the east than on the west side of Ireland.

### BALLOTA Linn.

#### 1. *B. nigra* (Linn.)—*Black Horehound*.

*B. fetida* (Lam.) Bab. Man.

Districts 1 2 3 4 5 - 7 - - 10 - 12

Lat. 51°–56°. South and East of Ireland, chiefly.

Type in Great Britain, English.

Roadsides and waste places, usually near houses; rare. *Fl.* July, August.

1 and 2. Rather rare near Cork, but occurs in both divisions of the county; *I. C.* and *Flor. Cork*. Rare near Fermoy; *Mr. T. Chandlee*. In Waterford; *I. C.* Near Clonmel; *Miss S. Grubb*.—3. Odogh, Kilkenny; *Rev. S. Madden*.—4. Murrough of Wicklow; *D. M.* Bray; *Ir. Flor.*—5. Churchyard at Crumlin, and under hedges about Glasnevin; *Threlkeld*. Knockmaroon Hill and Howth; *Ir. Flor.* Howth, Kilgobbin; Rathmines; Bullock, &c.; *Wade Dubl.* Sandymount; *Admiral Jones*. Near Timolin and Crookstown, Kildare; *I. C.* In the extreme south of Kildare; *Mr. J. Douglas*. Near Drogheda; *Mr. J. B. Hamilton*.—7. Near Turin, West Meath; *Miss E. Reynell*.—10. Belturbet, Cavan; *D. M.*—12. Very rare, but several localities in *Flor. Ulst.* and *Flor. Belf.* Near the Rectory house, Ballinderry; and on the roadside from Moira to Aghadee; hedges near Coleraine, where it has escaped from gardens; *D. M.*

Probably introduced in many of its stations.

## MARRUBIUM Linn.

1. †
- M. vulgare*
- (Linn.)—
- White Horehound*
- .

Districts 1 2 - 4 5 6 - - - - -

Lat. 51°-54°. South and Middle of Ireland.

Type in Great Britain, English.

Waste places and road-sides, usually near houses; rare. *Fl.* July to September.

1. Very rare near Cork, and only seen at Currabinga; *I.C.*—2. Great Island and East Ferry; *Flor. Cork*. Strand near Carrigaline; *Drummond*.—4. On the coast at Curacloa, Wexford; *Mr. J. Morrison*. Common on the Murrough of Wicklow; *Wade Rar*. Various places in Wicklow; between Dunganstown and the sea; *Flor. Hib.* Near Bray; *Mr. J. Ball*.—5. Old churchyard at Howth; *Flor. Hib.* Loughlins-town Commons; *Ir. Flor.*—6. Road-side near the village of Murrough, Clare; *Rev. T. Warren*. Road-side near Ballyvaughan, Clare; *A. G. M.* Plentiful along road-sides, south of Black Head, and north-east of Ballyvaughan; *Mr. F. J. Foot*. In the Great Island of Arran, mostly near villages; *Mr. L. Ogilby*.

Perhaps native on the south and east coast.

## TEUCRIUM Linn.

- 1.
- T. Scorodonia*
- (Linn.)—
- Wood Sage*
- .

Districts 1 2 3 4 5 6 7 8 9 10 11 12

Lat. 51°-56°. Throughout Ireland.

Type in Great Britain, British.

Woods, heaths, and bushy and stony places; common. *Fl.* July, August.From sea-level to 1100 on Ben Evenagh; *D. M.*

- 2.
- T. Scordium*
- (Linn.)—
- Water Germander*
- .

Districts - 2 - - - 6 7 - - - - -

Lat. 52°-53°. South and West of Ireland.

Type in Great Britain, Germanic.

Marshy places; very local and rare. *Fl.* July, August.2. Near the river Bride, east of Castle Lyons, also in Waterford on the same river; *Smith's "Cork."* Found

between Lismore and Tallow, near a brook-side; *Smith's "Waterford."* In a marshy place, near the river Bride, east of Castle Lyons, not in quantity, and flowering late in August; *Wade Rar.* (not gathered recently).—6. Near the bridge at Portumna, and thence along the west shore of Lough Derg, plentiful; *D. M.* On the banks of the Shannon, near Limerick; *K'Eogh.*—7. In marshy ground near the bridge at Portumna, county of Tipperary; *Flor. Hib.* In the Appendix to Threlkeld, Dr. Molyneux says that "*Scordium*—Water Germander"—grows in the county of Down; but it has not been found there since.

For some remarks on the identity of *T. Scordium* (Linn.) and *T. scordioides* (Schreb.), see "Phytologist," O. S. ii., p. 129.

[*Teucrium Chamædrys* (Linn.), *Wall Germander*, still grows on the Cork Fair-field, where it was noticed in 1840, by Dr. Power (see *Flor. Cork*); but in Dr. Wade's station, "borders of the sandy fallow fields at Greenhills, on the road leading to Tallaght, county Dublin," it has not been found for many years past. It was no doubt introduced in both localities.]

#### AJUGA Linn.

##### 1. *A. reptans* (Linn.)—*Common Bugle*.

Districts 1 2 3 4 5 6 7 8 9 10 11 12  
 Lat. 51°–56°. Throughout Ireland.

Type in Great Britain, British.

Shady and damp places; common. *Fl.* May, June.

From sea-level to 1260 feet on Ben Evenagh, Derry; (*D. M.*)

##### 2. *A. pyramidalis* (Linn.)—*Pyramidal Bugle*.

*A. genevensis* (Linn.) Bentham.

District - - - - - 6 - - - - -  
 Lat. 53°–54°. West of Ireland—Arran Isles and Burren.

Type in Great Britain, Scottish.

Limestone pastures; very rare. *Fl.* May, June.

6. Sparingly by the new coast road near Poulsallagh, south of Black Head, in Burren, Clare; *Mr. F. J. Foot.* Near Kilmoran, on the east side of the Great Island of Arran, in Galway Bay; sparingly; *D. M.*



## ORDER L.—VERBENACEÆ.

## VERBENA Linn.

1. *V. officinalis* (Linn.)—*Vervain*.

Districts 1 2 3 4 5 6 7 8 - - - 12.

Lat. 51°–54°. South and Middle of Ireland.

Type in Great Britain, English.

Road-sides and waste places, mostly on limestone; local.  
*Fl.* July, August.

Plentiful in some parts of the south and west of Ireland; and frequent in many of the midland counties; but probably introduced in several of its localities; rare or wanting in the north of Ireland; the only station recorded being that of "Saintfield road, Ballygowan;" *Flor. Belf.*

## ORDER LI.—LENTIBULARIACEÆ.

## PINGUICULA Linn.

1. *P. vulgaris* (Linn.)—*Common Butterwort*.

Districts 1 2 3 4 5 6 7 8 9 10 11 12

Lat. 51°–56°. From South to North of Ireland.

Type in Great Britain, Scottish, inclining to British.

Bogs and damp heathy places; frequent. *Fl.* June, July.

Rare in the south of Ireland, but found on Hungry Hill by Mr. Drummond; at Valentia, Kerry by the Rev. S. Madden, and in South Cork by Mr. Carroll. In South Tipperary (*Miss S. Grubb*). Longford Pass, Tipperary (*Rev. S. Madden*). In Kilkenny, at Bellone, Wilton, and Glandine, (*Rev. S. Madden*). Frequent in the midland counties, and abundant in many parts of the north and west of Ireland.

From sea-level to 2000 feet on Errigal (*Flor. Ulst.*)

2. *P. grandiflora* (Lam.)—*Large-flowered Butterwort*.

*P. vulgaris* var. Bentham.

Districts 1 2 - - - - - - - - - -

Lat. 51°–55°. South-west of Ireland—Cork and Kerry.

Hibernian type. Not found in Great Britain.

Bogs and marshy ground; very local. *Fl.* May, June.

1. Abundant in many parts of Kerry; Kenmare, Turk, Mangerton, Brandon, &c., Common at Killarney, "to the exclusion almost of the other kinds" (*Admiral Jones*). Abundant also in the southern and western parts of Cork, from Blarney to Bantry, reaching as far east as Carrignavar, six miles north of Cork; *I. C.*

First found by Mr. J. Drummond in Cork in 1809.

3. *P. lusitanica* (Linn.)—*Pale Butterwort*.

Districts 1 2 3 4 5 6 7 8 9 10 11 12  
Lat. 51°–56°. Throughout Ireland.

Type in Great Britain, Atlantic, inclining to Scottish.

Bogs; frequent, especially in the west, rather local and rare in the eastern districts.. *Fl.* June to August.

1 and 2. Common about Cork; *Flor. Cork*. Glenagad bog, Waterford; *Miss S. Grubb*.—3. Woodstock, Kilkenny; *Wade Rar.*—4. In a bog near Enniscorthy, Wexford; *I. C.* In various parts of Wicklow; *Flor. Hib.* Between Lough Dan and Roundwood, &c.; *D. M.* Glen-cree; *Mr. V. A. Smith*.—5. Foot of the Dublin mountains; *Mackay Cat. Ir.* Above Dundrum; *Wade Rar.*—5 and 7. Bog of Allen; *Wade Rar.*—12. On the Mourne mountains, and in many parts of Down, Antrim, and Derry. Frequent in the west and north, especially in mountainous districts, and towards the coast.

From sea-level to 1,000 feet on Slieve Donard (*Flor. Ulst.*), and 1,500 on Nephin Beg, Mayo; (*D. M.*)

*UTRICULARIA* Linn.

1. *U. vulgaris* (Linn.)—*Common Bladderwort*.

Districts 1 2 3 4 5 6 7 8 9 10 11 12  
Lat. 51°–56°. Throughout Ireland.

Type in Great Britain, British.

Ditches, pools, and bog-holes; frequent. *Fl.* June to August.

Not a common plant, though widely distributed.

2. *U. intermedia* (Hayne).—*Intermediate Bladderwort.*

*U. minor* var. Bentham.

Districts 1 - - - - - 8 - 10 11 12

Lat. 51°-56°. West and North of Ireland.

Type in Great Britain, Scottish, or Intermediate.

Shallow pools, ditches, and bog-holes; local and rare. *Fl.* August.

1. Killarney; *C. C. B.* Bog-holes at Mucruss; *Mackay Cat. Ir.* Ballyphehane bog; *Drummond.* Derry bog, Carbery (Mr. R. W. Townsend); *Flor. Cork*; not found by Mr. Carroll.—8. Frequent in the bogs of Connemara; and flowering near the Recess Hotel; *I. C.*—10. Peat drains near Scottsborough, in the County Fermanagh; *Mackay Cat. Ir.*—11. Abundant in many spots by the roadside between Gweedore and Glenties; *Flor. Ulst.*—12. Ballinahinch, County Down; *Flor. Hib.* Kirkeel; *Flor. Ulst.* On a large peat bog near Rasharkin, Antrim; *D. M.* Ditches by the Foyle, above Londonderry, in the parish of Templemore, Derry; *D. M.*

Apparently scarce, but probably often passed over, as it seldom flowers.

3. *U. minor* (Linn.)—*Lesser Bladderwort.*

Districts 1 2? - - - 6 - 8 9 10 11 12

Lat. 51°-56°. West and North of Ireland chiefly.

Type in Great Britain, British.

Ditches, pools, and bog-holes; frequent in the west and north. *Fl.* June to August.

2? Very rare in the East Riding of Cork; *Flor. Cork*, and not noticed in Waterford, Tipperary, or Kilkenny. On the east side of Ireland—it has been found only in the county of Down.

## ORDER LII.—PRIMULACEÆ.

### *PRIMULA* Linn.

1. *P. vulgaris* (Huds.)—*Primrose.*

*P. veris* var. Bentham, *P. vulgaris* and *P. elatior*, *Flor. Hib.*

Districts 1 2 3 4 5 6 7 8 9 10 11 12

Lat. 51°-56°. Throughout Ireland.

Type in Great Britain, British.

Pastures and banks, woods, &c.; common. *Fl.* April, May.

The Oxlip, which is now generally considered a hybrid between the Primrose and Cowslip, occurs occasionally in places where the two species grow together. The true *P. elatior* of Jacquin has not been found in Ireland.

From sea-level to 1000 feet on the basalt in Derry.

2. *P. veris* (Linn.)—*Cowslip*.

Districts 1 2 3 4 5 6 7 8 9 10 - 12  
 Lat. 51°–55°. South and Middle of Ireland, chiefly.

Type in Great Britain, British, inclining to English.

Meadows and pastures; rare in the northern counties. *Fl.* April, May.

Very rare in the north and north-west. Frequent about Loughgall, Armagh (where the Primrose is exceedingly rare); *A. G. M.* Professor Melville finds the Cowslip to the west of the town of Galway, and it is not unfrequent in the eastern division of the county. It is marked in Mr. Wynne's list as occurring in Sligo. In Derry, Dr. Moore has seen it in two localities only, viz., by the river Roe, below Dungiven, very sparingly; and on the lawn in Derrynoid demesne, near Ballinascreen, where it had possibly been introduced. Lurgan; White-house; Cave Hill, near Belfast, are the only stations given in the Flora of Ulster. Miss Maffett finds the Cowslip in Castle Dobbs Demesne, near Carrickfergus, Antrim.

Mr. Bentham considers the Cowslip and Primrose as varieties of the same species.

*HOTTONIA* Linn.

1. *H. palustris* (Linn.)—*Water Violet*.

District - - - - - - - - - - - 12  
 Lat. 54°–55°. North-east of Ireland—Down only.

Type in Great Britain, English, inclining to Germanic.

Ditches and pools; very rare. *Fl.* May, June.

12. In ditches or drains near Downpatrick, County Down (Dr. Kennedy); *Flor. Hib.* (The late Mr. Templeton planted it in his pond at Cranmore, near Belfast.)

The Rev. Richard Oulton has kindly informed us that he has seen *Hottonia palustris* growing profusely in drains and deep cuts where the railway runs through the marshes near Downpatrick, and adds that it has every appearance of being native.

*LYSIMACHIA* Linn.

1. *L. vulgaris* (Linn.)—*Yellow Loose-strife*.

Districts 1 2 3 - 5 6 7 8 9 10 - 12

Lat. 51°–56°. From South to North of Ireland.

Type in Great Britain, English, inclining to British.

Banks of rivers and lakes, and in marshy meadows; frequent, but rather local. *Fl.* July.

Rather rare in the south, but occurs in the counties of Kerry, Cork, Waterford, Tipperary, and Kilkenny. Not found in Wicklow, and in Dublin only recorded to grow about Loughlinstown and Old Connaught. Frequent in many of the midland, western, and northern counties, especially about the margins of the larger lakes and rivers.

2 † *L. Nummularia* (Linn.)—*Moneywort*.

Districts 1? (2) - - 5? - - 8? - - - 12

Lat. 51°–55°. Possibly native in the East of Ireland.

Type in Great Britain, English.

Hedge-banks and borders of streams and ponds; very rare, and often in suspicious stations. *Fl.* June, July.

1? Recorded by Mr. Drummond as having been formerly found on Ballyphehane and Summerstown bogs; Sunday's Well (Rev. Dr. Hinks); *Flor. Cork*, but not seen recently; *I. C.*—2. Boggy ditch-bank near Tramore, Waterford, probably an escape from cultivation; *Mr. T. Chandlee*. Near Clonmel (Miss A. Taylor), probably not native; *I. C.*—5. "Juxta scrobes et fluenta apud Kilmashogue;" *Wade Dubl.* Side of a small pond near Loughlinstown; *the late Mr. J. Johnston*. In marshy situations at the old camp, Loughlinstown; and in moist woods about Collon, Louth; *Ir. Flor.* In patches on the overhanging banks of the Liffey at Lodge Park, Kildare, perhaps conveyed by floods; *Mr. J. Douglas*.—8. Streamstown, Connemara; *Wade Gallovid.*—12. On a wet bank by

the side of a mountain road leading from Antrim to Lady-hill! apparently native; *Mr. D. Orr*. On a bank near Ballinderry Rectory; on a bank by the stream above Whitehouse; road-side near Dunsilly, Antrim; hedge-bank at Lady Hill, Antrim; *Flor. Ulst.* Colin Glen; banks of the stream at Maryville; hedge-side, Rathgill, Bangor; *Flor. Belf.* Mr. Tate considers it truly wild in the last locality; Mr. Stewart describes it as having run wild at Whitehouse dams.

Never seen wild in Ireland by *D. M.* or *A. G. M.*, but like *Hypericum montanum*, *Adoxa moschatellina*, &c., may be native in the north-eastern and eastern counties, though almost certainly introduced in the south of Ireland.

3. *L. nemorum* (Linn.)—*Wood Loosestrife*.

Districts 1 2 3 4 5 6 7 8 9 10 11 12

Lat. 51°–56°. Throughout Ireland.

Type in Great Britain, British.

Damp shady places; frequent. *Fl.* June to August.

*ANAGALLIS* Linn.

1. *A. arvensis* (Linn.)—*Scarlet Pimpernel*.

Districts 1 2 3 4 5 6 7 8 9 10 11 12

Lat. 51°–56°. Throughout Ireland.

Type in Great Britain, British, inclining to English.

Corn-fields, banks, and sand-hills on the coast; frequent.

*Fl.* June, July.

*Var. β cœrulea* (*A. cœrulea* Schreb.)

Very rare.—2. Once found near Cork, many years ago; *I. C.* In North Cork; *Prof. E. Murphy*.—10. In garden ground at Bessmount, Monaghan; *Miss Maffett*.—12. Corn-fields near Warrenpoint, County Down; *Flor. Hib.* Sand-banks at Portstewart; *Flor. Ulst.*

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

Districts 1 2 3 4 5 6 7 8 9 10 11 12

Lat. 51°–56°. Throughout Ireland.

Type in Great Britain, British.

Bogs and damp pastures; frequent. *Fl.* July, August.

## CENTUNCULUS Linn.

1. *C. minimus* (Linn.)—*Bastard Pimpernel*.

Districts 1 2 - - - 6 - 8 9 - 11 12

Lat. 51°-56°. South, West, and North of Ireland.

Type in Great Britain, English, inclining to British.

Damp, sandy, and heathy places, mostly near the sea; rare; *Fl.* June to August.

1. Castle Gregory, Kerry; *D. M.* Marshes at Glengariff and Ballylickey, near Bantry; *Mackay Cat. Ir.* In South and West Cork; *Flor. Cork.*—2. Great Island, Cork Harbour; *I. C.*—6. Abundant on Dunbeg bog, Clare, and in boggy ground from Kilkee to Loop Head; *D. M.*—8. On moist turfy sands near Ballinahinch, Connemara; *Wade Rar.* On the coast near Clifden; *I. C.* On the bogs in Erris, near Bangor, &c., Mayo; *D. M.*—9. Between Cliffony and Mullaghmore, Sligo; *Flor. Ulst.*—11. In the district called "the Rosses," and near Fanet, Donegal; *Prof. E. Murphy.* Near Dunglow, between the village and the ferry; *Admiral Jones.*—12. Abundant on the sandy warrens between Downhill and Portstewart, Derry; *D. M.* Near the bridge at Ballygowan, and near Newtonards Down; *Flor. Ulst.* Margin of the lake at Ballinahinch, and on the margin of Monlough, near Ballygowan, Down; *Mr. S. A. Stewart.* Strangford Lough, Comber; *Flor. Belf.*

## GLAUX Linn.

1. *G. maritima* (Linn.)—*Black Salt-wort*.

Districts 1 2 - 4 5 6 - 8 9 - 11 12

Lat. 51°-56°. Coast of all Ireland.

Type in Great Britain, British.

Salt marshes; common. *Fl.* June, July.

## SAMOLUS Linn.

1. *S. Valerandi* (Linn.)—*Brook-weed*.

Districts 1 2 3 4 5 6 7 8 9 - 11 12

Lat. 51°-56°. From South to North of Ireland.

Type in Great Britain, English, inclining to British.

Marshy and watery places, chiefly near the coast; frequent. *Fl.* July, August.

## ORDER LIII.—PLUMBAGINACEÆ.

*STATICE* Linn.1. *S. Bahusiensis* (Fries)—*Loose-flowered Sea-lavender*.

*S. rariflora* (Drej.) E. B. *S. Limonium* var. Benth. *S. Limonium*, Flor. Hib., Flor. Ulst., Flor. Cork, &c.

Districts 1 2 3 4 5 6 - 8 - - - 12

Lat. 51°-55°. South, East, and West coasts of Ireland.

Type in Great Britain, English.

Muddy salt marshes; rather local. *Fl.* July, August.

On various parts of the coast, but not abundant; reaches as far north as Clifden, Connemara on the west, and Holywood, Down, and Lough Larne, Antrim, on the east side of Ireland, but has not been observed on the northern shores.

All the specimens which we have seen belong to this species. *S. Limonium* (Linn.) we believe has not yet been observed in Ireland.

2. *S. occidentalis* (Lloyd).—*Rock Sea-Lavender*.

*S. spathulata*, Flor. Hib., *S. binervosa* (G. E. Sm.), Brit. Flor.

*S. auriculæfolia* Vahl. Bentham.

Districts 1? 2 - - 5 6 - - - 11 -

Lat. 51°-56°. South, East, West, and North Coasts of Ireland.

Type in Great Britain, Atlantic, inclining to English.

On cliffs and banks by the sea, rarely on muddy sea-shores; local and rather rare; *Fl.* July, August.

1? Many places on the coast of Kerry; *Flor. Hib.*—  
2. Ballycotton, Cork; *I. C.* Tramore, Waterford (Mr. T. Chandlee); *I. C.*—5. Killiney Hill! and Howth! (abundant!); *Flor. Hib.* Clogher Head, Louth; *Mr. J. Ball.* Muddy shores between Howth and Baldoyle! *Ir. Flor.* On the muddy strand at Portmarnock; *Flor. Hib.*—6. On rocks by the road-side south of Black Head, Clare; *D. M.* and *A. G. M.* On the west side of Great Arran Island; *D. M.* (The form found in the two last localities differs remarkably in appearance from the ordinary state of the species as found on the east coast, being only about half the size, with a less branched panicle, and it does not survive the ordinary winter at Glasnevin when



planted in the open ground.)—11. On the rocks of Dunargas! and in one place only on the west side of Horn Head! Donegal; *Mr. C. Moore*.

*ARMERIA* Willd.

1. *A. maritima* (Willd.)—*Thrift*, or *Sea-Pink*.

*A. vulgaris* (Willd.), Brit. Flor., Bentham. *Stative Armeria* (Linn.) Flor. Hib.

Districts 1 2 3 4 5 6 - 8 9 - 11 12  
Lat. 51°-56°. Coasts of all Ireland.

Type in Great Britain, British.

Sea-shores; common. Also on mountains. *Fl.* June to August.

1. On Macgillycuddy's Reeks, Kerry; *Mackay Cat. Ir.* Top of Brandon; *Rev. W. M. Hind*.—8. On Ben Lettery, Connemara; *Prof. Melville*. Common on "The Reek" (Croagh Patrick); *Dr. P. Browne*. On Nephin; *D. M.*—11. Top of Muckish; *Admiral Jones*. On Errigal; *Flor. Ulst.*—12. On Ben Evenagh, Derry; *D. M.* The mountain localities are all in the west and north, and not far from the coast.

Ranges from sea-level on the coast to 1200 feet on Ben Evenagh (*D. M.*); to 2460 feet on Errigal, and 2646 feet on Nephin (*Flor. Ulst.*)

ORDER LIV.—PLANTAGINACEÆ.

*PLANTAGO* Linn.

1. *P. Coronopus* (Linn.)—*Buck's-horn Plantain*.

Districts 1 2 - 4 5 6 - 8 9 - 11 12  
Lat. 51°-56°. Coasts of all Ireland.

Type in Great Britain, British.

Pastures and banks near the sea; common. *Fl.* June to August.

From sea-level, on the coast, to 1000 feet on the basaltic cliffs of Derry.

2. *P. maritima* (Linn.)—*Sea Plantain*.

Districts 1 2 - 4 5 6 - - 9 - 11 12

Lat. 51°–56°. Coasts of all Ireland.

Type in Great Britain, British.

Muddy and rocky sea-shores; common. Also on hilly pastures and mountains inland. *Fl.* June to September.

6. Inland, common on the rocky pastures about Castle Taylor, Galway, at about 60 or 70 feet; *A. G. M.*—8. On Lettery Mountain, Connemara (*P. Loeflingii*); *Wade Gallovid* and *Rar*. On the shores of Lough Cullin and Lough Conn, Mayo; *A. G. M.*—9. Shores of Lough Carra, Mayo; *A. G. M.*—12. On many of the basaltic mountains in Derry, rising to 1500 feet on Carntogher; *D. M.*

From sea-level, on the coast, to 1500 feet or higher on the mountains.

3. *P. lanceolata* (Linn.)—*Rib-wort Plantain*.

Districts 1 2 3 4 5 6 7 8 9 10 11 12

Lat. 51°–56°. Throughout Ireland.

Type in Great Britain, British.

Meadows and pastures; common. *Fl.* June, July.

A form with very broad and shaggy leaves occurs on the Island of Rathlin and elsewhere on the coast.

4. *P. major* (Linn.)—*Way-bread*, or *Great Plantain*.

Districts 1 2 3 4 5 6 7 8 9 10 11 12

Lat. 51°–56°. Throughout Ireland.

Type in Great Britain, British.

Pastures, way-sides, and waste places; common. *Fl.* June to August.

[*Plantago media* (Linn.) has been sparingly found in a few places, where it is supposed to have been introduced with grass seeds. Mr. Carroll has seen one or two plants near Cork. "The lands of Pea-hill, below Feltrum-hill," are given as a locality in the "Irish Flora;" and Mackay, in his "Catalogue," mentions Skerries, on the authority of Mr. Underwood. It has been recently noticed in a pasture field close to Hollymount House, Mayo; *A. G. M.* A

specimen sent to us from Belfast by Mr. Stewart under the name of "*P. media*," is *P. lanceolata*, with leaves rather broader than usual.]

*LITTORELLA* Linn.

1. *L. lacustris* (Linn.)—*Shore-weed*.

Districts 1 - - 4 - 6 - 8 9 10 11 12

Lat. 51°-56°. From South to North of Ireland.

Type in Great Britain, British.

Margins of lakes, chiefly in mountainous districts; frequent.

*Fl.* June to August.

More abundant in the north and west.

ORDER LV.—CHENOPODIACEÆ.

*SUÆDA* Forsk.

1. *S. maritima* (Dum.)—*Sea Blite*.

*Chenopodium marit.* (Linn.), Flor. Hib. *Schoberia mar.* (Mey.)

Districts 1 2 - 4 5 - - 8 - - 11 12

Lat. 51°-55°. Coasts of all Ireland.

Type in Great Britain, British.

Muddy sea-shores; frequent, but rather local. *Fl.* July to September.

More frequent on the south and east coasts.

*SALSOLA* Linn.

1. *S. Kali* (Linn.)—*Prickly Salt-wort*.

Districts 1 2 - 4 5 - - 8 9 - 11 12

Lat. 51°-56°. Coasts of all Ireland.

Type in Great Britain, British, inclining to English.

Sandy sea-shores; frequent. *Fl.* August.

*CHENOPODIUM* Linn.

1. † *C. olidum* (Curt.)—*Stinking Goose-foot*.

*C. Vulvaria* (Linn.), Bentham.

Districts ? 2 - - 5 - - - - - 12?

Lat. 52°-55°. South and East of Ireland—perhaps extinct.

Type in Great Britain, Germanic, inclining to English.

Waste places, and under walls near the sea; very rare, if not extinct in Ireland. *Fl.* August, September.

1? or 2.? Included, with doubt, in the "Flora of Cork," but has not been found there recently. Mr. Carroll tells us that within the last ten years *C. olidum* and *C. polyspermum* were occasionally offered for sale in the market at Cork, being probably cultivated for medicinal purposes.—2. Tramore, Waterford; gathered many years ago by *the Rev. S. Madden*, who well remembers its odious smell.—5. Along the wall of St. Mark's Church, Dublin; *Ir. Flor.* Found sparingly near Sandymount; and between the Custom-house and Annesly-bridge, several years previous to 1836; *Flor. Hib.*—12. In the neighbourhood of Belfast (Mr. Templeton); *Flor. Ulst.*

Not recently observed in any part of Ireland, and Threlkeld remarks that, though much employed medicinally in his time, he had never seen "*Atriplex olida*" growing wild, so that it may have been introduced in the very few localities where it has occurred.

2. † *C. urbicum* (Linn.)—*Upright Goose-foot.*

Districts - - - - 5 - - - - - 12?

Lat. 53°-54° or 55°. East, and perhaps South, of Ireland.

Type in Great Britain, Germanic, inclining to English.

Waste places about towns; very rare. *Fl.* July to Sept.

5. Waste grounds about Wellesley Chapel, Dublin; *Ir. Flor.* In the College Park, and other places near Dublin; *Flor. Hib.* Once found at Milltown, near Dublin, many years ago; *I.C.* Once seen, and then only two or three plants, on a mud wall at the top of Dominick-street, near the present site of the Broadstone Station, at Dublin; *D. M.* Wade describes it as frequent on dung-hills, ditch-banks, and by road-sides; *Flor. Dubl.*; but it is now very scarce. 12? Near Carrickfergus, at the junction of the Templepatrick-road (Mr. Templeton); *Flor. Ulst.* Never seen in the North of Ireland by *D. M.*

The Rev. S. Madden believes that he has seen *C. urbicum* at Castlecomer, in Kilkenny, but we have not seen speci-

mens. The kind of place, "among corn and potatoes," given in the "Flora of Cork," leads us to believe that some other species is intended; especially as *C. urbicum* is not included in Mr. Carroll's list.

K'Eogh (1735) speaks of Blites, Goose-foot, or Sowbane, as then cultivated in gardens.

3. *C. album* (Linn.)—*White Goose-foot, or Fat Hen.*

Districts 1 2 3 4 5 6 - 8 9 - 11 12

Lat. 51°-56°. Throughout? Ireland.

Type in Great Britain, British.

Cultivated and waste land; frequent. *Fl.* July to Sept.

A common weed in many parts of Ireland; but appears to become less frequent in the west. The form or variety *C. viride* (Linn.) is also not uncommon.

4. *C. ficifolium* (Sm.)—*Fig-leaved Goose-foot.*

*C. album* var. Bentham.

Districts - 2 - - 5 - - - - - 12

Lat. 52°-55°. South? and East of Ireland.

Type in Great Britain, Germanic.

Cultivated land and waste places; very local and rare; *Fl.* August and September.

2. Near Timoleague; *Drummond*; but not found recently; *I. C.* Believed to have been seen near Waterford; *Rev. W. W. Newbould.*—5. Frequent near Dublin; *Wade Dubl.* About Glasnevin; *Ir. Flor.* Drumcondra, Raheny, Santry, Finglas, Cardiff, and Ballyman; *the late Mr. J. White's M.S.* Mr. Chandlee has sent us an immature specimen, apparently of *C. ficifolium*, which he gathered on the banks of the Grand Canal, near the tenth lock. 12. Near Belfast! sparingly, growing along with *C. album*; *Mr. D. Orr.*

5. *C. murale* (Linn.)—*Sow-bane, or Nettle-leaved Goose-foot.*

Districts 1 2 - - 5 - - - - - (12)

Lat. 53°-54°. South and East of Ireland.

Type in Great Britain, English, inclining to Germanic.

Waste places near towns; very local and rare. *Fl.* July to October.

1 and 2. About Cork, but rare; the localities given in *Flor. Cork* for *C. urbicum* belong to *C. murale*; *I. C.*—2. At Ballyhooly, near Fermoy (probably this species); *Mr. James Cooke*.—5. Frequent near Dublin; *Flor. Hib.* Waste ground at Trinity College; *Mackay, Cat. Ir.* On the Commons at Howth; way-side going to Clontarf; *Ir. Flor.* Near Portobello, Dublin; *A. G. M.* Way-sides near Baldoyle; *Mr. D. Orr* (now very scarce near Dublin).—(12.) Once found by *Mr. D. Orr* growing with *C. hybridum* on the ruins of a cottage at Malone, by the new Lisburn Road, two miles from Belfast; *Flor. Ulst.*

6. **C. rubrum** (Linn.)—*Red Goose-foot*.

Districts 1 ? - - 5 - - - - - 12  
 Lat. 51°–56°. South and East Coasts of Ireland.

Type in Great Britain, English, inclining to Germanic.

Waste places and dung-hills, near the sea; very local and rare. *Fl.* August, September.

1. Glasheen, and on dung-hills; *Flor. Cork*. Once found by *Mr. Carroll* on Spike Island, Cork Harbour.—5. Near Dublin; *Wade* and *Flor. Hib.* On rubbish by the south bank of the Liffey, at its mouth; *A. G. M.* In several places from Howth to the mouth of the Liffey; *D. M.* At Dean George's (? below Curraghera); *Ir. Flor.* Coast near Balbriggan; *D. M.* Road-side near Swords; *Mr. D. Orr*.—12. Belfast; *Flor. Hib.* Ballyhalbert, Newtownards (*Mr. Templeton*); Ballycastle (*Miss Hincks*); *Flor. Ulst.* Gas-works, Holywood; *Flor. Belf.*

‡ 7. **C. Bonus-Henricus** (Linn.)—*Allgood*, or *Wild Spinach*.

Districts 1 2 - 4 5 6 7 - 9 10 11 12  
 Lat. 51°–56°. Throughout Ireland.

Type in Great Britain, British, inclining to English.

Waste places and road-sides; frequent, but usually near cottages, and probably the remains of ancient cultivation. *Fl.* May to August.

[*C. hybridum* (Linn.) has once been found (with *C. murale*) on the ruins of a cottage at Malone, near Belfast, where it had probably been introduced by some accident].

[*C. polyspermum* (Linn.) is said to have been found near Dublin (*Wade*) and has once or twice been gathered near Cork, where Mr. Carroll believes that it was casually introduced. A specimen sent to us under this name from Belfast is *Beta maritima*.]

*BETA* Linn.

1. *B. maritima* (Linn.)—*Sea Beet*.

Districts 1 2 - 4 5 6 - 8 9 - 11 12

Lat. 51°-56°. Coasts of all Ireland.

Type in Great Britain, British, inclining to English.

Sea-shores; not unfrequent. *Fl.* July to September.

This is described by Dr. Dickie as very rare in Ulster, but we have seen specimens from many parts of Antrim and Donegal.

*SALICORNIA* Linn.

1. *S. herbacea* (Linn.)

Districts 1 2 - 4 5 6 - 8 9 - 11 12

Lat. 51°-56°. Coasts of all Ireland.

Type in Great Britain, British.

Muddy sea-shores; common. *Fl.* August to September.

The form *S. procumbens* (Smith) is also frequent.

*Obs.*—*S. radicans* (Sm.) is included in "*Flora Hibernica*" with the locality of "strand at Narrow-water, below Newry," but we fear that some form of *S. herbacea* has been gathered in this and other Irish stations given for *S. radicans*. A specimen sent to us from "Cherry Valley," near Belfast, is certainly nothing more than *S. herbacea*; and although the "*S. radicans*" of Dr. Mackay's Herbarium is correctly named, we have not succeeded in finding it in the alleged locality of "sea-shore, Howth." We have before remarked on the unsatisfactory manner in which this collection is arranged and labelled; it is well known that the greater part of the specimens were not gathered wild, but were inserted only to represent the species, and the localities written on the labels are not necessarily those of the specimens, being for the most part merely copied from the "*Flora Hibernica*," or set down from remembrance of where the *species* was believed to have been gathered.

*ATRIPLEX* Linn.

1. *A. littoralis* (Linn.)—*Grass-leaved Sea-Orache*.

Districts 1 - - 4 5 - - - - - 12

Lat. 51°-55°. South and East coasts of Ireland.

Type in Great Britain, British.

Salt marshes and muddy sea-shores; rather rare. *Fl.* July to September.

1. On the shores of Hop Island, Cork; *I. C.* South Cork; *Mr. J. Sullivan*.—4. In Wicklow, at the mouth of the river below Newtown-mount-Kennedy; *D. M.*—5. On the Sutton side of Howth; *Flor. Hib.* and *Ir. Flor.* Near the mill at Portmarnock; *D. M.* In muddy soil at the south-west side of Howth; *Wade Rar.* Near Balbriggan; *D. M.*—12. People's Park, Belfast; *Flor. Belf.* Belfast Bay; *Mr. J. Ball*.

*Var. β marina* (*A. marina* Linn.)

1. On the banks of the river Galey plentifully; *Smith's "Kerry."*—12. Dundrum Bay (G. D.); *Flor. Ulst.*

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

*A. patula* var. Bentham.

Districts 1 2 3 4 5 - - 8 9 - - 12

Lat. 51°-56°. Throughout Ireland.

Type in Great Britain, British.

Cultivated and waste ground; frequent. *Fl.* July to September.

Less plentiful in the west.

*Var. β erecta* (*A. erecta* Huds.)

Less frequent, but has been observed in Kerry (*C. C. B.*), Mayo (*A. G. M.*), and Dublin (*D. M.*), and probably occurs in many other counties.

3. *A. hastata* (Linn.)—*Halbert-leaved Orache*.

*A. patula* (Linn.) Brit. Flor., Bentham, &c.

District 1 2 3 4 5 - - 8 9 - - 12

Lat. 51°-56°. Throughout Ireland.

Type in Great Britain, British.

Cultivated and waste ground; common. *Fl.* July to September.



Var.  $\beta$  *deltoidea* (*A. deltoidea* Bab.)

Waste places chiefly near the sea, probably not rare. Common about Dublin, and occurs also in Wicklow, Cork, and Waterford. Dr. Dickie describes it as frequent in Ulster.

4. **A. Babingtonii** (Woods).—*Babington's Sea-Orache*.

*A. patula* var. Bentham. *A. rosea* Bab. olim.

Districts 1 2 - 4 5 - - 8 - - - 12

Lat. 51°-56°. Coasts of all Ireland.

Type in Great Britain, British.

Sea shores; common. *Fl.* July to September.

Probably abundant round all the shores of Ireland, but this and the other species of *Atriplex* have received little attention from collectors.

5. **A. arenaria** (Woods).—*Frosted Sea-Orache*.

*A. laciniata* (Sm.) Brit Flor. *A. rosea* (Linn.) Bentham.

Districts 1? - - - 5 - - - 9 - - 12

Lat. 51°-56°. On various parts of the coast.

Type in Great Britain, British, probably.

Sandy sea-shores; rare and local. *Fl.* July to September.

1? On the side of the River Lee, below Cork; *Mackay Rar.*—5. At the Martello tower below Sutton; and between Howth and Baldoyle; *Ir. Flor.* Shore at Knockingen, near Balbriggan; *Mackay Rar.*—9. Plentiful on an island in the Bay of Sligo, opposite Cummin; *Mackay Rar.*—12. Near Bangor and Island Magee (Mr. Templeton) *Flor. Hib.* Frequent in Ulster; *Flor. Ulst.*

The distribution of this species is very imperfectly known, as its localities have seldom been distinguished from those of *A. Babingtonii*.

#### OBIONE Gaert.

1. **O. portulacoides** (Moq.)—*Sea Purslane*.

*Atriplex portulacoides* (Linn.), Brit. Flor., Flor. Hib.

Districts 1 2 - - 5 - - - - - - -

Lat. 51°-54°. South and East coasts of Ireland.

Type in Great Britain, English.

Muddy and rocky sea-shores; very local and rare. *Fl.* August, September.

1. Near the exit of the river Mang, not far from Calinaferry; *Smith's "Kerry."* Coast between Dingle and Castlemaine Bay; *D. M.*—2. On a marsh at Ballinacurra; *Flor. Cork.* Plentiful in a salt-marsh at Rostellan; and on rocks near Ballycotton, Cork; *I. C.* Tramore, Waterford; *Flor. Hib.* and *Mr. P. Duffy.*—5. At the Martello Tower below Sutton; *Flor. Hib., Wade, &c.* And other places on the southern side of Howth; *D. M.* and *A. G. M.* Laytown, Drogheda; *I. C.*

*Obs.*—*O. pedunculata* (Moq.) is recorded by Wade as found sparingly in the salt-water muddy marshes in Cushtrower Bay, near Ballinahinch, Connemara. Professor Babington and other botanists have not succeeded in finding it in this locality.

## ORDER LVI.—POLYGONACEÆ.

### *RUMEX* (Linn.)

#### 1. *R. maritimus* (Linn.)—*Golden Dock.*

District - - - - 5 - - - - -

Lat. 53°–54°. East of Ireland—Dublin only.

Type in Great Britain, English.

Boggy ground; very rare. *Fl.* July, August.

5. On Curracha Bog, near Garristown, county of Dublin; *Mr. L. Ogilby.* Abundant in this, the only Irish locality; *D. M.*

Two stations—"A marsh near Clay Castle, Youghal" *Flor. Hib.*, and "Bogs near Ballycotton"—are given in the "Flora of Cork," but the plant has not been recently found near Cork, and Mr. Carroll believes that some mistake was made in the name. As remarked by Dr. Power, *R. maritimus*, *R. palustris*, and *R. pulcher*, are all three omitted in Mr. Drummond's printed list (1818), which is of later date than Mackay's Catalogue, in which they were first published as Irish.

2. *R. conglomeratus* (Murr.)—*Sharp-leaved Dock*.*R. acutus* (Linn.), Flor. Hib.

Districts 1 2 3 4 5 6 7 8 9 10 11 12

Lat. 51°–56°. Throughout Ireland.

Type in Great Britain, British.

Fields, way-sides, and waste places; common. *Fl.* June to August.2. *R. sanguineus* (Linn.)—*Blood-veined Dock*.

Districts 1 2 3 4 5 6 7 8 9 10 11 12

Lat. 51°–56°. Throughout Ireland.

Type in Great Britain, British, inclining to English.

Shady damp places; frequent. *Fl.* June to August.

Less abundant than *R. conglomeratus*, but widely distributed. The form with red veins is rare, which may have been a reason for the plant being thought less frequent than it really is.

3. † *R. pulcher* (Linn.)—*Fiddle Dock*.

District - - - - 5 - - - - - - -

Lat. 53°–54°. East of Ireland—Dublin only.

Type in Great Britain, English.

Waste places and roadsides; very rare, and always in suspicious stations. *Fl.* July, August.

5. Between Kingstown and Dalkey; *Ir. Flor.* Near Dunleary, &c.; *Flor. Hib.* Near Dunleary (now Kingstown); *Label in Herb., Mackay*: Sparingly at the foot of walls near the harbour at Bullock; *A. G. M.*

Not now to be found at Friar's Walk, Cork, though said to have been found there abundantly by Mr. Drummond (see *Mackay Cat. Ir.*). Mr. Carroll believes that one plant only was found.

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

Districts 1 2 3 4 5 6 7 8 9 10 11 12

Lat. 51°–56°. Throughout Ireland.

Type in Great Britain, British.

Damp meadows, waste places, &c.; common. *Fl.* July to September.

*R. pratensis* (M. et K.) is, we believe, a hybrid between *R. crispus* and the present species. It is usually found in small quantity, and resembles sometimes one, sometimes the other, of the two supposed parents with which it is usually found associated. It seems to be of rare occurrence in Ireland. Killarney (*C. C. B.*); Newport, Mayo (*C. C. B.*); near Foxford, Mayo (*A. G. M.*); and Newforge, near Belfast (*Flor. Ulst.*), are the only localities at present known.

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

Districts 1 2 3 4 5 6 7 8 9 10 11 12

Lat. 51°–56°. Throughout Ireland.

Type in Great Britain, British.

Fields, way-sides, and waste places; common. *Fl.* June to August.

A large form occurs on rocks by the sea, at Howth and elsewhere.

6. *R. Hydrolapathum* (Huds.)—*Water Dock*.

Districts 1 2 - 4 5 6 - 8 - 10 - 12

Lat. 51°–56°. Throughout Ireland.

Type in Great Britain, English.

Banks of rivers, lakes, and ditches; rather local. *Fl.* July, August.

1. Frequent in the marshes about Kinsale, Iniskeen, and the river Bandon; also near Doneraile; *Smith's "Cork."* Rather rare about Cork (*Flor. Cork*), but seen by Mr. Carroll in the northern, and by Mr. Sullivan in the southern division of the county.—2. Near Passage; *Smith's Waterford*. Clonee; *Wade Rar.* In Waterford; *I. C.*—4. Ballyconigar, Wexford; *Miss S. Grubb*. Plentiful in ditches on the Murrough of Wicklow; *D. M.*—5. Near Malahide; *A. G. M.* Ditches between Raheny and Baldoyle; *D. M.*—6. Near the bridge of Ballinasloe; *Wade Rar.* Banks of the Shannon, opposite Limerick; *Flor. Hib.*—8. Westport, Mayo; *C. C. B.*—10. Banks of Lough Erne; *Flor. Hib.*—12. In several localities, but very local in the counties of Down, Antrim and Derry; *Flor. Ulst.*, &c. Mostly by Lough Neagh and along the river Bann; *D. M.*

7. *R. Acetosa* (Linn.)—*Common Sorrel*.

Districts 1 2 3 4 5 6 7 8 9 10 11 12

Lat. 51°–56°. Throughout Ireland.

Type in Great Britain, British.

Meadows and pastures; common. *Fl.* May, JuneFrom sea-level to 2646 feet on Nephin (*Flor. Ulst.*)8. *R. Acetosella* (Linn.)—*Sheep's Sorrel*.

Districts 1 2 3 4 5 6 7 8 9 10 11 12

Lat. 51°–56°. Throughout Ireland.

Type in Great Britain, British.

Sandy and peaty places; common. *Fl.* May to August.

*Obs.*—*R. palustris* (Sm.) is recorded as having been found in a marsh near Clay Castle, Youghal (*Mackay Cat. Ir.*), and in bogs near Ballycotton (*Flor. Cork.*) In marshes within reach of the sea at Howth (*Wade Rar.*) At Lough Beg, Portmore; bog meadows near Belfast; and Bann at Portglenone (*Flor Ulst.*), but there is reason to believe that some other species has been mistaken for it in all these localities. It certainly does not grow in Derry (*D. M.*) Mr. D. Orr has shown to us a specimen of *R. palustris*, of which he once found a single root growing by the side of the canal, near Blackweir's-bridge, by the Broadstone Terminus, Dublin; but this is a locality open to suspicion, and the seed is as likely to have been introduced by the canal traffic, as to have been floated down from some native locality along the course of the canal.

## OXYRIA Hill.

1. *O. reniformis* (Hook.)—*Mountain Sorrel*.

Districts 1 2 - - - - 8 9 - - -

Lat. 51°–55°. South and West of Ireland.

Type in Great Britain, Highland.

Wet cliffs on mountains; rare. *Fl.* July, August.

1. On Macgillycuddy's Reeks, and Brandon mountain, Kerry; *Flor. Hib.* Connor Hill, near Dingle, below 1000 feet; *D. M.* Carntual; *Admiral Jones.* Mangerton; *I. C.*—

2. On Galtymore, Tipperary; *Mackay Cat. Ir.*—8. On Lettery mountain, Ballinahinch; *Wade Gallovid.* On Mweelrea mountain, Mayo; *Mackay in App. to Fraser.*—9. Ben Bulben, Sligo; *Flor. Hib., &c.*

*POLYGONUM* Linn.

1. † *P. Bistorta* (Linn.)—*Snake-weed.*

Districts 1 2 3 - 5 6 - - 9 10 - 12  
 Lat. 51°–56°. From South to North of Ireland.

Type in Great Britain, British, inclining to Intermediate.

Moist pastures; very rare. *Fl.* June to September.

1. In Sir T. Denny's park near Tralee; *Smith's "Kerry."* Field at Ballylickey, near Bantry; *Flor. Hib.*—2. Near Lismore and Tallow, on the hill of Slatwood; *Smith's "Waterford."*—3. In a damp meadow by the river at Stradbally, Queen's County; *Mr. T. Chandlee.*—5. In a field at Ashtown, near Monkstown; *Mackay Cat. Ir.*—6. In the glebe Ballingarry, Limerick; *Mrs. Gubbins.* Banks of the Suck, near Ballinasloe; *Mr. F. J. Foot.*—9. Road-side a little south of the town of Sligo; *Flor. Ulst.*—10. Near Miltown, Tyrone; *Admiral Jones.*—12. Near Moira (Mr. Templeton.) Thornvale, near Belfast; meadow at Castle Dobbs, near Carrickfergus; lower part of Colin Glen; *Flor. Ulst.* Plentiful about Springfield, Moneymore, Derry; and in the meadows near the old castle at Shane's Castle, Antrim; *D. M.* Cherry Valley, Comber; *Flor. Belf.*

Perhaps introduced in all its localities, as it was formerly much cultivated.

2. *P. viviparum* (Linn.)—*Alpine Bistort.*

District - - - - - 9 - - -  
 Lat. 54°–55°. North-west of Ireland—Sligo and Leitrim.  
 Type in Great Britain, Highland.

Mountain pastures; very rare. *Fl.* June, July.

9. On the north side of Ben Bulben, Sligo; *Prof. E. Murphy.* Glenade, Leitrim; *Admiral Jones.*

3. *P. amphibium* (Linn.)—*Water Bistort.*

Districts 1 2 3 4 5 6 7 8 9 10 11 12

Lat. 51°–56°. Throughout Ireland.

Type in Great Britain, British.

Rivers, lakes, &c., or on damp ground; frequent. *Fl.* July to September.4. *P. lapathifolium* (Linn.)—*Glandular Persicaria.*

Districts 1 2 - 4 5 - - 8 9 - 11 12

Lat. 51°–56°. From South to North of Ireland.

Type in Great Britain, British, inclining to English.

Fields and waste places; probably not unfrequent. *Fl.* July to September.Far less common than *P. Persicaria*, but has no doubt been overlooked in many places.*Var. β nodosum.* (*P. nodosum* Pers.) (*P. laxum* Reich.)Ballincollig Castle, near Cork; *I. C.* Near Belfast, in various places; *Flor. Belf.* Mr. Stewart has sent us, under the name of *P. nodosum*, some specimens, gathered near Belfast, which we can hardly distinguish from *P. lapathifolium*, which latter is not included in Mr. Tate's "*Flora Belfastiensis.*" Mr. Carroll's specimen seems also to belong to *P. lapathifolium*.5. *P. Persicaria* (Linn.)—*Spotted Persicaria.*

Districts 1 2 3 4 5 6 7 8 9 10 11 12

Lat. 51°–56°. Throughout Ireland.

Type in Great Britain, British.

Waste and damp ground; common. *Fl.* July to September.6. *P. Hydropiper* (Linn.)—*Biting Persicaria.*

Districts 1 2 3 4 5 6 7 8 9 10 11 12

Lat. 51°–56°. Throughout Ireland.

Type in Great Britain, British.

Watery places and damp waste ground; common. *Fl.* August, September.

7. *P. minus* (Huds.)—*Narrow-leaved Persicaria*.

Districts 1 2 3 4 5 6 - 8 9 - 11 12  
 Lat. 51°–56°. From South to North of Ireland.

Type in Great Britain, English, inclining to Germanic.

Damp, boggy, or gravelly places; rare. *Fl.* August, September.

1. Moist ground near Cork (Mr. J. Drummond); *Flor. Hib.* Ballincollig Castle, near Cork (luxuriant specimen); *I. C.*—2. Boggy places near Cahir, in Tipperary; *D. M.*—3. It often springs up in turf mould brought from the neighbourhood of Edenderry, Queen's County; *D. M.*—4. Near Enniskerry; *Mr. J. Ball.*—5. Boggy ground near Robertstown, Kildare; *D. M.*—6. About Tuam, county Galway; *Ir. Flor.*—8 and 9. On the shores of Lough Cullin, Mayo; *A. G. M.*—9. Near Sligo; *the late Mr. J. Wynne.*—11. Near Malin well, and between Gweedore and Dunglow, Donegal; *Flor. Ulst.*—12. Shore of Ballygowan Lake, and Castleblayney Lake; near Churchill (Mr. Templeton); *Flor. Hib.* Near Carnmoney, by the mill-dam; *Flor. Ulst.* Margin of Lake Henny, Saintfield; *Flor. Belf.* Abundant on the borders of Mon-lough, Down; *Mr. S. A. Stewart.* Sparingly by the side of the Bann, near Mountsandy, below Coleraine, Derry; *D. M.*

A plant gathered by Mr. Carroll near Ballincollig Castle, Cork, and which he supposed might be *P. mite* (Schrank), appears to us merely a luxuriant state of *P. minus*. Its leaves are broader than usual, but the fruit is only half as large as in specimens of *P. mite* gathered by the Thames side, near London.

8. *P. aviculare* (Linn.)—*Knot-grass*.

Districts 1 2 3 4 5 6 7 8 9 10 11 12  
 Lat. 51°–56°. Throughout Ireland.

Type in Great Britain, British.

Fields, way-sides, waste places, &c.; common. *Fl.* June to September.

Very variable, especially on the coast.



9. *P. Raii* (Bab.)—*Ray's Sea Knot-grass*.*P. maritimum* var. Bentham.

Districts 1 2 - 4 5 6 - 8 - - 11 12

Lat. 51°-56°. Coasts round all Ireland.

Type in Great Britain, British.

Sandy sea-shores; not unfrequent. *Fl.* August to September.

1 and 2. Ballycotton; Ringpoint, Youghal; Dungarvan, Waterford (*P. maritimum*); *Flor. Cork.* Tramore, Waterford; *Mr. P. Duffy*.—4. On the shore of the Murrough of Wicklow; *D. M.*—5. Killiney Bay, near Dublin (*P. maritimum*); *Brit. Flor.* Sea-coast near Sandymount, &c.; *Flor. Hib.* Shore between Swords and Malahide, Dublin; *Mr. D. Orr*.—6. Miltown Malbay, Clare; *Prof. Harvey*. Sandhills at Lahinch; *Mr. C. Carter*. Near Kilmoran, in the Great Island of Arran; *Prof. D. Oliver*.—8. On the coast near Galway; *the late Prof. Graham*.—11. Shore at Clonea and Culdaff, Donegal; *Mr. C. Moore*. Malin; *Flor. Ulst.*—12. Newcastle and Dundrum (Down); shores of Belfast Lough; *Flor. Ulst.* Ballyholme and Groomsport; *Flor. Belf.* On the sands near Ballintoy, Antrim; and shores of Lough Foyle, Derry; *D. M.*

Of the true *P. maritimum* (Linn.) we have seen no Irish specimen, and we believe that all the localities which have been recorded for it in Ireland belong to *P. Raii*.

10. *P. Convolvulus* (Linn.)—*Black Bindweed*.

Districts 1 2 3 4 5 6 7 8 9 10 11 12

Lat. 51°-56°. Throughout Ireland.

Type in Great Britain, British.

Cultivated ground and waste places; frequent. *Fl.* July to September.

[*Fagopyrum esculentum* (Moench.), *Buck-wheat*, is occasionally found in cultivated fields, and in the vicinity of places where it has been sown as food for game, but is not naturalized in any part of Ireland.]

[*Daphne Laureola* (Linn.) only occurs in shrubberies where it has been planted, as at Mount Merrion, near Dublin.]

## ORDER LVII.—EMPETRACEÆ.

*EMPETRUM* Linn.1. *E. nigrum* (Linn.)—*Crow-berry*.

Districts 1 2 - 4 5 - - 8 9 - 11 12

Lat. 51°–56°. From South to North of Ireland.

Type in Great Britain, Scottish, inclining to Highland.

Mountain heaths; not unfrequent, but local. *Fl.* May.

Rare in the south. 1. Hungry Hill, near Bantry; *Flor. Cork* and *I. C.*—2. Galtymore, Tipperary; *Mr. T. Anderson*. Frequent on the mountains of Dublin and Wicklow, and in the west and north of Ireland.

Ranges from near sea-level at Fintra, in Donegal (*A. G. M.*), to about 3000 feet on Lugnaquilla, Wicklow (*D. M.*)

## ORDER LVIII.—EUPHORBIACEÆ.

*EUPHORBIA* Linn.1. *E. Peplis* (Linn.)—*Purple Sea Spurge*.

District - 2 - - - - - - - - - - - -

Lat. 52°–53°. South of Ireland—Waterford only.

Type in Great Britain, Atlantic.

Sandy sea-shores; very rare. *Fl.* July to September.

2. Garraris Cove, near Tramore, Waterford (*Miss Trench*); *Mackay Addit.* (*Nat. Hist. Rev.*, O. S., vi., 537); and *spec.!* with label attached in *Herb. Mackay*.

First found by Miss Trench in 1839.

2. *E. helioscopia* (Linn.)—*Sun Spurge*.

Districts 1 2 3 4 5 6 7 8 9 10 11 12

Lat. 51°–56°. Throughout Ireland.

Type in Great Britain, British.

Cultivated land; frequent. *Fl.* June to September.3. *E. hyberna* (Linn.)—*Irish Spurge*.

Districts 1 2 - - - 6 - - 9? - 11? 12?

Lat 51°–56°. South-west, and perhaps North of Ireland.

Type in Great Britain, Atlantic.

Woods and thickets; very local. *Fl.* June.

1 and 2. Abundant in many parts of Kerry and west Cork. Plentiful on the mountains of Kerry; and all over the county of Cork; *Smith*. Killarney, Glengariff, and between these two places towards Cork, extending as far east as the valley of the Nier, and Cappoquin, Waterford (*Miss S. Grubb*). Frequent in woods and along streams, near Fermoy (*Mr. T. Chandlee*). On the south side of the river Suir, near Clonmel (*Mr. T. Anderson*); and will probably be found elsewhere in the glens of Waterford and south Tipperary.—6. It grows abundantly near Anakirk, in the county of Limerick; *K'Eogh* (1736).—9? On Slieve-bane (Slieve Baun), Roscommon; *Dr. Patrick Browne*.—11? In the county of Donegal (Robert Brown); *Flor. Hib.* (not found by any other botanist).—12? Near Belfast (*Mr. Templeton*); *Engl. Bot.*

Mr. W. Carruthers, whose valuable help we gladly acknowledge, tells us that the specimen from which the drawing in *English Botany* was made, is still preserved in the British Museum, labelled by Sowerby as found by Mr. Templeton "wild in the neighbourhood of Belfast, flowering in June." As the plant has not been found by any one of the many diligent botanists who have recently explored that neighbourhood, we cannot but fear that this specimen was derived from Mr. Templeton's garden. Dr. Dickie, who had access to Mr. Templeton's notes, does not give any locality in Antrim.

This Spurge was known to the early English botanists under the name of "*Tithymalus Hibernicus*." See *How's. Phytologia Britannica, Ray's Synopsis, &c.*

#### 4. *E. amygdaloides* (Linn.)—*Wood Spurge*.

District 1 - - - - -

Lat. 51°-52°. Extreme South of Ireland—Cork only.

Type in Great Britain, English.

Woods and thickets; very rare. *Fl.* April, May.

1. By the river in the park at Castle Bernard, near Bandon, Cork; *Drummond*. Mr. Carroll has gathered it in this locality, where it grows very sparingly.

We have not been able to find the notice of this species in *Smith's "Cork,"* quoted by Mackay.

5. *E. Paralias* (Linn.)—*Sea Spurge*.

Districts 1 2 - 4 5 6 - - - - 12

Lat. 51°-55°. West, South, and East Coasts of Ireland.

Type in Great Britain, Atlantic, inclining to English.

Sandy sea-shores; local. *Fl.* August, September.

1. On the sand-hills between Castlemain Harbour and Dingle Bay; *Mr. J. Woods*. In Valentia Harbour; *Rev. S. Madden*. In South Cork; *I. C.*—2. Ballycotton; *Drummond*. Youghal; *Flor. Cork*. Tramore! Waterford; *Mr. T. Chandless*.—4. Coast at Curacloa, Wexford; *Mr. J. Morrison*. Sandhills at Rockfield, Wicklow; *D. M.*—5. Portmarnock; Portrane; Baldoyle; Ireland's Eye, &c.—6. Plentiful on the south Isles of Arran; *Mackay Rar.* and *Prof. Melville*.—12. Shore between Green-castle and Kirkeel, Down; *Ir. Flor.* Dundrum Bay; *Mr. S. A. Stewart*.

6. *E. portlandica* (Linn.)—*Portland Spurge*.

*E. segetalis* (Linn.) Bentham.

Districts 1 2 - 4 5 - - - - 11 12

Lat. 51°-56°. South, East, and North Coasts of Ireland.

Type in Great Britain, Atlantic.

Sandy and rocky sea-coasts; local. *Fl.* May to August.

1 and 2. On rocks at the mouth of Cork Harbour; *Drummond*. Cork-beg and Ballycotton, Cork; *Flor. Hib.* Little Island and White-point, Cove; *Flor. Cork*. In both divisions of the county; *I. C.*—2. Sand-hills east of Tramore, Waterford; *Mr. J. Woods*.—4. Shore at Courtown, near Gorey, Wexford; *Mr. J. Morrison*. Rockfield, Wicklow; *D. M.* Abundant on Bray Head; *A. G. M.*—Killiney Bay; along the banks leading to Sutton; Walls of Kilbarrock Church; *Ir. Flor.* Sand-hills opposite Malahide; *Flor. Hib.* (where a variety occurs with leaves broader than usual; *D. M.*)—11. Base of the cliffs westward of Knockglass, Malin; *Flor. Ulst.* Rocks at Cockmany, Innishowen, and at the base of Bennion mountain, Donegal; *Mr. C. Moore*.—12. Green-

castle, Down; *Ir. Flor.* Dundrum Bay; *Mr. S. A. Stewart* and *Flor. Ulst.* Sandy warrens at Bushmills, Antrim; *D. M.* Bushfoot, near the Giant's Causeway; *Mr. S. Stewart.*

Probably also occurs on the west coast.

7. *E. Peplus* (Linn.)—*Petty Spurge.*

Districts 1 2 3 4 5 6 7 8 9 10 11 12  
 Lat. 51°–56°. Throughout Ireland.

Type in Great Britain, British, inclining to English.

Cultivated land and waste places; frequent. *Fl.* July, August.

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

Districts 1 2 3 4 5 6 7 - - - - 12  
 Lat 51°–56°. From South to North of Ireland.

Type in Great Britain, English, inclining to British.

Cultivated land, on a light soil; local and rather rare. *Fl.* June to August.

Far less abundant than *E. helioscopia* and *E. Peplus*; rather rare near Cork; frequent in the midland counties and about Dublin; local in the North of Ireland, though found plentifully in some parts of Derry. Appears to be very rare or wanting in the north-west of Ireland.

MERCURIALIS Linn.

1. *M. perennis* (Linn.) *Dog's Mercury.*

Districts - - - - 5 6 7 - 9 10 - 12  
 Lat. 51°–56°. Middle to North of Ireland.

Type in Great Britain, British.

Woods and bushy places; very rare. *Fl.* April, May.

5. Hedges near Finglas; *Wade Dubl.* Hedge-bank near Finglas, sparingly; *Rev. H. G. Carroll* and *A. G. M.*—6. In the Kiebar Pass, south of Bell harbour in Burren, Clare; *Mr. F. J. Foot.*—7. Common in the woody grounds about Parsonstown; *Ir. Flor.* (seen there plentifully by *D. M.*)—9. Two large patches at Hazlewood, Sligo; *the late Mr. J. Wynne.*—10. A single locality near Tartaraghan, Armagh; *Rev. G. Robinson.*—12. In a small glen called Altaferna glen, near Ballycastle, Antrim; *D. M.* At Langford Lodge, near

Crumlin, by Lough Neagh; *Miss Maffett* and *Mr. S. A. Stewart*. Marino, Holywood; *Flor. Belf.*

The locality of "woods near Bantry" is given in "*Flora Hibernica*" on the authority of Miss Hutchins, but the specimen in Dr. Mackay's Herbarium is *M. annua*.

2. † *M. annua* (Linn.)—*French Mercury*.

Districts 1 2 3 - 5 - - - - -

Lat. 51°-54°. South and East of Ireland.

Type in Great Britain, English.

Cultivated land and waste places; very local. *Fl.* July, August.

1. On the shore near Beal Castle, plentifully; *Smith's "Kerry."*—1 and 2. Sunday's well, and by the Lough, rather common; *Flor. Cork*, and found by Mr. Carroll plentifully in a few places near the city of Cork.—2. In Waterford (in the grounds of Newtown school); *Miss S. Grubb*.—3. Abundant in potato-fields near Kilkenny; *Mr. John Sim*.—5. Abundant in cultivated ground, fields, gardens, and waste places in the vicinity of Dublin; *Flor. Hib.*, &c. Near the station at Blanchardstown, Dublin; *A. G. M.*

Only in the neighbourhood of towns and houses, and, though now a common weed about Dublin, it occurs, even there, principally as a "colonist."

ORDER LIX.—CERATOPHYLLACEÆ.

*CERATOPHYLLUM* Linn.

1. *C. demersum* (Linn.)—*Common Hornwort*.

Districts 1 2 - - 5 - - ? - - - 12

Lat. 51°-56°. South, East, and North-east of Ireland.

Type in Great Britain, English, inclining to British.

Lakes, pools, and ditches; very rare. *Fl.* June, July.

1. In the Lough of Cork, abundantly (Mr. D. Murray); *Flor. Cork*, and still found there by Mr. Carroll.—2. Melbrook, near Clonmel (Miss A. Taylor); *I. C.*—5. Pools near

the bridge at Navan (Dr. Scott); *Flor. Hib.*—12. Lough Neagh (Mr. Templeton); Lough Rinalvin, at south end of Island of Rathlin; *Flor. Ulst.* Near Killaleagh, Isle of Rathlin; *Flor. Hib.* Lough Lea, near Killilea; *Flor. Ulst.* On the shore of the large lake in Rathlin; *D. M.* Marsh by the Foyle, above Derry, and in a ditch near Jackson Hall, below Coleraine; *D. M.* Lake near Ballinahinch, County Down: *Flor. Hib.* (sub. *C. submersum*).

Wade describes *C. demersum* as "common in Connemara, particularly near Ballinahinch;" he also speaks of *C. submersum* as growing with it, but not so common. There is reason to fear that *Myriophyllum verticillatum* (which grows plentifully in Connemara) was the plant found by Dr. Wade.

*Obs.*—*C. submersum* (Linn.) is given in "Flora Hibernica" as found in a lake near Ballinahinch, Down. Dr. Mackay's specimens have no fruit, but judging from the foliage there is little doubt that they belong to *C. demersum* (Linn.)

## ORDER LX.—CALLITRICHACEÆ.

## CALLITRICHE Linn.

1. *C. verna* (Linn.)—*Water Starwort*.

*C. aquatica* (Sm.) Benth.

Districts 1 2 3 4 5 6 7 8 9 10 11 12

Lat. 51°–56°. Throughout Ireland.

Type in Great Britain, British.

Lakes, pools, ditches and streams, also on damp ground; common. *Fl.* May to September.

*Var. β platycarpa* (*C. platycarpa* (Kutz.)

Common on damp ground, and in wet muddy places.

*C. hamulata* (Kutz.); *C. pedunculata* (D. C.).

Districts 1 2 - - - - 8 - - - 12

Rare. 1. Killarney; *C. C. B.* Clonakilty, Cork (*C. C. B.*); *Flor. Cork.*—2. Glanseskin, near Fermoy, Cork; *I. C.*—8. At Burnishoole, and in the Mullet, south of Binghamstown,

Mayo; *C. C. B.* Ditches near the holy well at Ballycashill, Mayo; *Flor. Ulst.*—12. Ditches, Lagan Canal; Conlig; Ballycroghan Dam; Kinnegar; *Flor. Belf.* Monlough, Down; *Mr. S. A. Stewart.* Ditches in the Bog Meadows, near Belfast! *Mr. D. Orr.*

2. *C. autumnalis* (Linn.)—*Autumnal Water-starwort.*

*C. aquatica* var. Bentham.

Districts - - - - - 8 9 - 11 12

Lat. 53°–56°. North-west and North of Ireland.

Type in Great Britain, Scottish.

Ditches and lakes; rare, and local. *Fl.* June to October.

8. Cong, Mayo; *C. C. B.*—9. At the outlet of a small lake a little east of Foxford, Mayo; *A. G. M.*—11. Ditch by the road-side near Dunfanaghy, Donegal; *Mr. C. Moore.*—12. Abundant by the side of the Bann, between Lough Neagh and Coleraine, Derry; *D. M.* Ditches near Lough Neagh in Antrim; *Flor. Hib.* and *D. M.*

The stations given near Cork (*Flor. Cork*) and Dublin (*Ir. Flor.*) are probably erroneous.

## ORDER LXI.—URTICACEÆ.

### *PARIETARIA* Linn.

1. *P. diffusa* (Koch.)—*Wall Pellitory.*

*P. officinalis* (Linn.), Brit. Flor., Bentham, &c.

Districts 1 2 3 4 5 6 7 8 9 10 11 12

Lat. 51°–56°. Throughout Ireland.

Type in Great Britain, British, inclining to English.

Old walls and hedge-banks; frequent. *Fl.* June to September.

### *URTICA* Linn.

1. *U. urens* (Linn.)—*Small Nettle.*

Districts 1 2 3 4 5 6 7 8 9 10 11 12

Lat. 51°–56°. Throughout Ireland.

Type in Great Britain, British.

Waste places and cultivated land; frequent. *Fl.* June to September.



2. *U. dioica* (Linn.)—*Great Nettle*.

Districts 1 2 3 4 5 6 7 8 9 10 11 12

Lat. 51°–56°. Throughout Ireland.

Type in Great Britain, British.

Hedges, waste places, way-sides, &c.; common. *Fl.* June to September.

[*Urtica pilulifera* (Linn.) Specimens were sent by Miss Hutchins from Ballylickey, near Bantry (*Mackay Cat. Ir.*). It is also recorded to have been found at Glendore and Derry, Carbery (*Flor. Cork.*). Mr. Carroll has not been able to obtain any further information, therefore, not knowing whether the plant still exists in either locality, we are compelled to exclude it for the present. In any case it must have been introduced.]

*HUMULUS* Linn.1. \* *H. Lupulus* (Linn.)—*Hop*.

Districts 1 2 3 4 5 6 7 - 9 - 11 12

Hedges, way-sides, and rocky places, usually near ruins and houses; rather rare, and no doubt the remains of former cultivation. *Fl.* July.

1. Near the Abbey of Killagh; *Smith's "Kerry."*—1 and 2. Several localities near Cork; *Flor. Cork.*—2. Rare, and introduced near Fermoy; *Mr. T. Chandlee*. Ardmore, Waterford (not native); *I. C.*—3. Near Gaul's Mills, Kilkenny; *Mr. T. Chandlee*. Attanna and Togher, Queen's County; *Rev. S. Madden*. Hedges between Cullenagh and Stradbally; *Flor. Hib.*—4. Ballyteigue, Wexford; *Rev. S. Madden.*—5. Thickets along the Barrow, between Birt and Athy; *Ir. Flor.*—6. On walls at the west end of Corrofin, Clare; *Wade Rar.* Fences along the road near Bunratty Castle, Clare; *Rev. T. O'Mahony*. In the large island of Arran; *Flor. Hib.* (near some ruins; *Prof. Melville*).—7. Near Nenagh; *Flor. Hib.* Near Birr, in Tipperary (apparently wild); *Wade Rar.*—9. On an island at Rockingham, Roscommon; *Rev. S. Madden*. Near the old Abbey of Mayo; *Prof. Melville*. Near Foxford, Mayo, apparently introduced; *A. G. M.* Plentiful by road-sides near Sligo; *D. M.*—11. Near Ballybogan, Donegal;

*Admiral Jones*.—12. About the ruins of Grey Abbey, Down; *Ir. Flor.* Naturalized by the toll-gate on the Lisburn road, near Belfast; *D. M.*

The Hop is still grown, like *Clematis*, as an ornament for training over bowers and fences; and we believe it to be a relic of ancient cultivation in all the localities where it now occurs.

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ORDER LXII.—ULMACEÆ.

*ULMUS* Linn

1. \* *U. suberosa* (Ehrh.)—*Common Elm*.

*U. campestris* (Linn.), Bentham.

Districts 1 2 3 4 5 6 7 8 9 10 11 12

Hedges and thickets; common, but usually planted. *Fl.* March, April.

The variety *parvifolia* is naturalized in hedges and waste places in Antrim; and between Parson's-town and Portumna; *D. M.*

2. † *U. montana* (With.)—*Wych Elm*.

*U. campestris* (Linn.), Brit. Flor.

Districts (1) (2) - (4) (5) (6) (7) (8) (9) (10) - 12

Lat. 51°-56° Perhaps native in the North-east of Ireland. Type in Great Britain, British.

Woods, hedges, and river-sides; very local, and rare in the wild state. *Fl.* March, April.

(1) and (2). Planted in the south; *I. C.*—(4). Hedges and woods in Wicklow; *Mackay Cat. Ir.*—(5). Planted in the vicinity of Dublin; *D. M.*—(6). Planted in Galway; *A. G. M.*—(9.) In a glen near Ben Bulben, Sligo, doubtfully wild; *D. M.*—(10.) Planted in county Armagh; *A. G. M.*—12. Apparently wild in Antrim and Derry. By the side of the Mayola, below Draperstown, and by the river Roe, above Newtownlimavaddy, Derry. Frequent in the northern glens of Antrim; *D. M.* Rare in the wild state, but occurs in many of the glens of Antrim; Colin Glen; Grugan's Glen; Glenarm, &c.; *Flor. Ulst.* (sub "*U. campestris*").

## ORDER LXIII.—AMENTIFERÆ.

## SALIX Linn.

1. *S. pentandra* (Linn.)—*Bay-leaved Willow*.

Districts - (2) - - - 6 - 8 9 10 11 12  
 Lat. 53°-56°. Native in the North of Ireland.

Type in Great Britain, Scottish, inclining to Intermediate.

Boggy places and river-sides; local, and rather rare. *Fl.* May, June.

(2.) In a natural wood near Blarney; *Drummond*. Rarely seen by Dr. Power, and considered doubtfully native by Prof. Murpby.—6. At the salmon-leap, on the river Auna, near Miltown Malbay; *Mr. C. Carter*. On the banks of the Suck, near Ballinasloe; *Mr. F. J. Foot*.—8. By a stream near Clifden, Connemara, perhaps not indigenous; *I. C.*—9. In Roscommon; *Mr. F. J. Foot*.—10. Ditch-banks at Florencecourt, Fermanagh; *Flor. Hib.*—11. In the south of Donegal (often planted) *A. G. M.*—12. In many parts of Derry and Antrim (truly native); *D. M.* and *Flor. Ulst.* Several localities near Belfast; *Mr. S. A. Stewart*.

Recorded by Wade as found at Luttrell's-town, Santry, and Chapelizod, near Dublin, but it had probably been planted in these localities. Mr. Carroll considers it certainly not native in the south of Ireland.

2. † *S. fragilis* (Linn.)—*Crack Willow*.

Districts 1 2 3 4 5 - - - - 11 12  
 Lat. 51°-56°. From South to North of Ireland.

Type in Great Britain, British, inclining to English.

Hedges, plantations, and marshy ground; frequent, but probably always planted. *Fl.* April, May.

*Var. β S. decipiens* (Hoffm.)

12. Hedges near Newtown-Limavady; *D. M.*

*Var. γ S. Russelliana* (Smith); (*Bedford Willow*.)

12. Shane's Castle, Antrim. Near Dungiven, Derry; *D. M.* Kirkeel, Down; *Mackay Cat. Ir.*

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

Districts 1 2 3 4 5 - - - - - 11 12

Lat. 51°–56°. From South to North of Ireland.

Type in Great Britain, British, inclining to English.

Marshy places; frequent, but much planted. *Fl.* May.

*Var. β cærulea* (*S. cærulea* Smith.)

12. Naturalized in Antrim and Derry; *D. M.*

*Var. γ vitellina* (*S. vitellina* Smith.)

12. By the river Faughan, and near Moneymore, Derry; *D. M.* Commonly planted.

4. \* *S. undulata* (Ehrh.)—*Lanceolate Willow*.

*S. lanceolata* (Smith) Flor. Hib. *S. amygdalina* var. Bentham.

District - - - - - - - - - - - 12

Banks of rivers; hedges and wet places; rare, and apparently always planted. *Fl.* April, May.

12. Not rare near Coleraine, and by the side of the Roe, in Derry; and abundant near Ballymoney, Antrim: but is much cultivated in both counties; *D. M.*

Cosson and Germain believe that the male plant has not been found in Europe. "Flore de Paris," Ed. 2, p. 616, 1861.

5. † *S. triandra* (Linn.)—*Almond-leaved Willow*.

*S. amygdalina* (Linn.) Bentham.

Districts 1 2 - - - - - (8) - 10 - 12

Lat. 51°–56°. From North to South of Ireland.

Type in Great Britain, English, inclining to British.

In wet hedges, plantations, osier-beds, &c.; not unfrequent, but hardly appearing native. *Fl.* May.

Often planted, and thus in time passes for a wild plant. Mr. Carroll considers it indigenous in Cork, where it grows abundantly along the Blackwater.

6. † *S. purpurea* (Linn.)—*Rose Willow*.

*S. monandra* (Hoffm.)

Districts 1 2 - - - - - 8 - 10 11 12

Lat. 51°–56°. From South to North of Ireland.

Type in Great Britain, British, inclining to English.

Hedges, sides of rivers, and wet places; local, and doubtfully indigenous. *Fl.* May.

Sides of rivers in Connemara; *Wade Rar.* In Donegal, Derry, and Antrim; but usually in places where it has been planted.

*Var. β Helix (S. Helix Linn.)*

1. Near Carrigaline, Cork; *Drummond.* 1 and 2. In several places, but always in suspicious stations; *I. C.*—8. Sea-side at the mouth of the Killery Harbour, Mayo; *Flor. Hib.*—10. Hedges near Florence-court, Fermanagh; *Flor. Hib.*—12. In Glen-dermot; by the Faughan, and other places in Derry; near Ballycastle, and shores of Lough Neagh, at Shane's Castle, Antrim; *D. M.*

*Var. γ Lambertiana (S. Lambertiana, Smith).*

12. Road-side, and along the Bush river, near Dervock, Antrim; and by the river Bann, &c., near Coleraine, Derry; *D. M.*

7. † *S. rubra (Huds.)—Green-leaved Osier.*

*S. purpurea var. Benth.*

Districts — (2) — — — — — — — — — 11 12

Lat. 54°–56°. North of Ireland; a doubtful native.

Type in Great Britain, English, or Intermediate.

River-sides, and wet places, but scarcely wild. *Fl.* March, April.

2. Near Fermoy; *Drummond.*—11. In Donegal; *Mr. C. Moore.*—12. Banks of the Faughan, above Oaks Lodge; *D. M.* Moneymore; Stewartstown; Newtownards (Mr. Templeton); *Flor. Ulst.*

*Var. β Forbyana S. Forbyana (Smith).*

12. Glendermot, Derry; abundant near Ballymena and Cloghmills, Antrim; *D. M.*

8. † *S. viminalis (Linn.)—Common Osier.*

Districts 1 2 3 4 5 6 7 8 9 10 11 12

Lat. 51°–56°. Throughout Ireland; a doubtful native.

Type in Great Britain, British, inclining to English.

Sides of rivers, hedges, and wet places; frequent, but scarcely wild. *Fl.* March to May.

Much cultivated, and hence often seen in hedges and wet plantations. *S. stipularis* of "*Flora Hibernica*," is, we believe, a form of *S. viminalis*.

9. † **S. Smithiana** (Willd.)—*Smith's Osier*.

*S. viminalis* var. Benth. *S. viminali-cinerea*, Wimmer.

Districts 1 2 - 4 5 - - - - - 12

Lat. 51°-56°. From South to North of Ireland.

Type in Great Britain, English, inclining to British.

River-sides and damp hedges; not unfrequent; *Fl.* April, May.

Supposed by some botanists to be a hybrid between *S. viminalis* and *S. cinerea*, or some other willow. *S. Smithiana* occurs in much more wild-looking stations than most others of our osier willows; and if the seed is derived from *S. cinerea*, it seems hardly fair to exclude it from the list of natives.

10? † **S. acuminata** (Smith)—*Long-leaved Sallow*.

*S. caprea* var. Benth. *S. viminali-cinerea* Meyer.

Districts 1 2 - 4 - - - - - 12

Lat. 51°-55°. From South to North of Ireland.

Type in Great Britain, English.

Bank of rivers, marshy places, ledges, and osier beds; not unfrequent; but in most cases planted. *Fl.* April.

1 and 2. Common near Cork; *Flor. Cork* (not seen by *I. C.*)—4. Frequent in hedges in Wicklow; *Flor. Hib.*—12. By the Lagan, near Belfast; *Flor. Ulst.*

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

*S. caprea* var. Benth.

Districts 1 2 3 4 5 6 7 8 9 10 11 12

Lat. 51°-56°. Throughout Ireland.

Type in Great Britain, British.

Wet places; common. *Fl.* March, April.

The forms *S. oleifolia* Sm. and *S. aquatica* Sm. are not unfrequent.

12. *S. aurita* (Linn.)—*Round-eared Sallow.*

Districts 1 2 - 4 5 - - 8 9 10 11 12

Lat. 51°-56°. Throughout Ireland.

Type in Great Britain, British.

Wet thickets and heathy places; frequent. *Fl.* March, April.13. *S. caprea* (Linn.)—*Great Sallow.*

Districts 1 2 - 4 5 6 - 8 9 - 11 12

Lat. 51°-56°. Throughout Ireland.

Type in Great Britain, British, inclining to English.

Woods, thickets, hedges, and rocky places; frequent. *Fl.* March, April.14. *S. nigricans* (Fries)—*Dark-leaved Sallow.**S. phyllicifolia* var. Bentham.

Districts 1? - - - - - - - - - 12

Lat. 54°-56°. North-east of Ireland—Derry and Antrim.

Type in Great Britain, Scottish, inclining to Highland.

Wet thickets, sides of streams, and rocky places in mountainous districts; local. *Fl.* April to June.

1.? Near Dunkerron, Kerry (Dr. Taylor); *Flor. Hib.*—12. By the Roe, above Dungiven; Bennedy Glen, &c., in Derry (*var. α Forsteriana*); *D. M.* Between Larne and Ballymena; Glendoon, Glenarriff, and Glenae, in Antrim (*var. γ Andersoniana*); *D. M.* Rocks on a hill called Skerries in Antrim (*var. β rupestris*); *Flor. Hib.* Hedges in the parish of Raloo, Antrim (*var. hirta*); *D. M.*

15. † *S. laurina* (Smith.)—*Intermediate Sallow.**S. phyllicifolia* var. Bentham.

Districts 1? - - - - - - - - - 12

Lat. 54°-56°. North-east of Ireland.

Type in Great Britain, Intermediate.

Moist thickets; very rare; and perhaps planted. *Fl.* April, May.

1.? Near Carrigaline (*var. bicolor*); *Drummond.*—12. Sparingly in a moist bushy place by the road-side, between Castle Dawson and Bellaghy, Derry; also on the shore of Lough Neagh, near Massarene Park, Antrim (*var. bicolor*); *D. M.*

16. *S. phylicifolia* (Linn.)—*Tea-leaved Sallow*.

Districts - - - - - 12

Lat. 54°-56° North of Ireland.

Type in Great Britain, Scottish, inclining to Highland.

Mountain glens and rocky places in the north; rather rare.  
*Fl.* April, May.12. On the shores of Enagh Lough, Derry; Glenballyeamon, Antrim; *D. M.*17. *S. repens* (Linn.)—*Dwarf Silky Willow*.*S. fusca* (Linn.) Brit. Flor. Flor. Hib.

Districts 1 2 - 4 5 6 - 8 9 - 11 12

Lat. 51°-56°. From South to North of Ireland.

Type in Great Britain, British.

Heaths, and mountainous moors; frequent, but rather local. *Fl.* April, May.Very variable. The forms *prostrata*, *incubacea*, and *argentea*, are not unfrequent.

From sea-level in the west of Ireland to 1600 feet in Derry.

18. *S. ambigua* (Ehrh.)—*Ambiguous Willow*.*S. repens* var. Bentham. *S. aurito-repens* (Wimmer).

District - - - - - 9 - - -

Lat. 54°-55°. North of Ireland—Sligo and Antrim.

Type in Great Britain, Scottish (or British).

Rocky mountain slopes; rare. *Fl.* April, May.9. At the base of Ben Bulbin, on the north-west side, at about 1300 feet.—12. Frequent on the Belfast hills; *Mr. S. A. Stewart*.This is by many botanists considered a hybrid between *S. aurita* and *S. repens*.19. *S. procumbens* (Forbes).—*Smooth-leaved Mountain W.**S. Myrsinites* var. Bentham.

District - - - - - 9 - - -

Lat. 54°-55°. North-west of Ireland—Sligo only.

Type in Great Britain, Highland.

Rocky places on mountains; very local. *Fl.* June.



9. On the north side of Ben Bulben, Sligo, at 1500 feet ; *D. M.*

Another mountain willow, closely allied to *S. procumbens*, grows with it on Ben Bulben, but we have not yet seen satisfactory examples.

20. *S. herbacea* (Linn.) *Least Mountain Willow.*

Districts 1 2 - 4 - - - 8 - 10 11 12  
 Lat. 51°-56°. From South to North of Ireland,  
 Type in Great Britain, Highland.

Grassy and rocky places on mountain ; local. *Fl.* June.

1. On the top of Mangerton Mountain ; *Wade Rar.* On Sugar-loaf Mountain, Glengariff ; *I. C.*—2. Top of Galtymore, Tipperary ; *D. M.*—4. Summits of Thonelagee and Lugnaquilla, in Wicklow ; *Flor. Hib.*—8. On Nephin, from 1950 feet upwards ; *Flor. Ulst.* On the top of Nephin Beg ; *D. M.*—10. On Dart mountain ; *Admiral Jones* (probably extending to Tyrone as well as Derry).—11. On Bulben mountain, Inishowen ; *Wade Rar.* Barnesmore mountains ; *Admiral Jones.* On Slieve League (from 1800 feet to the top). On Errigal (from 1700 feet to the top). Top of Muckish ; *Flor. Ulst.*—12. On Slieve Donard (from 1800 feet to the summit) and Slieve Namhady ; *Flor. Ulst.* On Dart mountain, and on Clontygearagh, Derry. On the north side of Slieve-namon, Antrim ; *D. M.* Summit of Slieve Nanee, at 1850 feet (Mr. Templeton) ; *Flor. Ulst.*

Ranges from 1200 feet in Derry to more than 3000 feet on Galtymore, &c.

*POPULUS* Linn.

1. *P. tremula* (Linn.)—*Aspen.*

Districts . 1 - - 4 5 6 - 8 9 10 11 12  
 Lat. 51°-56°. From South to North of Ireland.  
 Type in Great Britain, British.

Woods, heaths, and rocky places ; not unfrequent. *Fl.* March, April.

Truly wild in the mountain glens and rocky places of the west and north. Often planted in the more level and

cultivated districts, but probably indigenous throughout nearly all Ireland.

[*P. alba* (Linn.) and *P. nigra* (Linn.) are frequently seen in plantations and in the vicinity of houses; but are not wild.]

*MYRICA* Linn.

1. *M. Gale* (Linn.)—*Dutch Myrtle*.

Districts 1 2 3 4 5 6 7 8 9 10 11 12

Lat. 51°–56°. Throughout Ireland.

Type in Great Britain, British.

Bogs and moory ground; frequent. *Fl.* May.

*BETULA* Linn.

1. *B. alba* (Linn.)—*Common Birch*.

Districts 1 2 3 4 5 6 7 8 9 10 11 12

Lat. 51°–56°. Throughout Ireland.

Type in Great Britain, British.

Heaths, moors, woods, &c.; frequent. *Fl.* April, May.

*Var. β glutinosa* (*B. glutinosa* Fries).

Marshes in Barry's-court (Dr. Power) *Flor. Cork*. Near the lake at Blarney; *I. C.*

*ALNUS* Tourn.

1. *A. glutinosa* (Gaert.)—*Alder*.

Districts 1 2 3 4 5 6 7 8 9 10 11 12

Lat. 51°–56°. Throughout Ireland.

Type in Great Britain, British.

Wet places and river-sides; common. *Fl.* March.

*Var. β incisa*.

12. Black Mountain, near Belfast; *Mr. S. A. Stewart*.

*QUERCUS* Linn.

1. *Q. Robur* (Linn.)—*Oak*.

Districts 1 2 3 4 5 6 7 8 9 10 11 12

Lat. 51°–56°. Throughout Ireland.

Type in Great Britain, British.

Woods, glens, and rocky places; common. *Fl.* April, May.

*Var. β sessiliflora* (Salisb.)

Apparently rare and local in Ireland.—12. Observed by

*D. M.* in a few localities in Antrim, having previously been noticed in the north of Ireland by Mr. Templeton.

*CORYLUS* Linn.

1. *C. Avellana* (Linn.)—*Hazel*.

Districts 1 2 3 4 5 6 7 8 9 10 11 12

Lat. 51°–56°. Throughout Ireland.

Type in Great Britain, British.

Woods, hedges, thickets, and rocky places; common. *Fl.* March.

[*Fagus sylvatica* (Linn.) *Beech* is very generally planted, but is not indigenous.]

[*Castanea vulgaris* (Lam.), *Spanish Chestnut*, and *Carpinus Betulus* (Linn.), *Hornbeam*, are also occasionally seen in plantations and parks.]

ORDER LXIV.—CONIFERÆ.

*TAXUS* Linn.

1. *T. baccata* (Linn.)—*Yew*.

Districts 1 2 - (4) (5) 6 - 8 - 10 11 12

Lat. 51°–56. From South to North of Ireland.

Type in Great Britain, English.

Upland woods, and rocky places on mountains; rare in the wild state. *Fl.* March.

Truly native in the mountainous parts of the west and north of Ireland. Often planted in the more level country. Formerly the yew was abundant in the mountainous parts of Kerry (*Smith*), and also in Cork (*Smith*). Still frequent about Killarney, and in many parts of Cork; *I. C.* Abundant in Burren, Clare (*Mr. F. J. Foot*). Occurs in Connemara, Donegal, Derry (Ben Evenagh), Antrim (Glenariffe), and many other counties.

*Var. β fastigiata* (Lindl.) *Irish, or "Florence-court," Yew*.

Originally found wild near Florence-court, Fermanagh, this remarkable variety has been extensively propagated, and is now common in nursery gardens and pleasure grounds. Its upright habit and close dark foliage resemble those of the Cypress.

*JUNIPERUS* Linn.1. *J. communis* (Linn.)—*Juniper*.

Districts 1 - - 4 - 6 - 8 9 - 11 12  
 Lat. 51°-56°. From South to North of Ireland.

Type in Great Britain, British.

Heathy and rocky places; frequent, but local. *Fl.* May.

The dwarf and usually procumbent form, which has been distinguished as a species under the name of *J. nana*, is frequent in mountainous districts.

*Obs.*—*Juniperus Sabina* (Linn.) is recorded by Dr. Molyneux (Phil. Trans., No. 227) to have been found by an apothecary on one of the islands in Lough Lane, Killarney, and this statement has been quoted by subsequent writers; but Edward Lhwyd, in the same letter to Tancred Robinson which we have already quoted under *Trifolium repens*, says "As for the "*Sabina*," I doubt my friend whom I sent to Kerie (whom I have not yet seen) will bring me no news of it." There can be little doubt that the plant reported to Dr. Molyneux by his friend the apothecary was some form of *Juniperus communis*, especially as in the older writers the name "Savine" is quoted as a name applied to *Juniperus communis* var. *nana*. (See *Ray. Cat. Angl.*)

*PINUS* Linn.1. *P. sylvestris* (Linn.)—*Scotch Fir*.

Districts [1] 2? - - - - 8 - (10) - -  
 Lat. formerly 51°-56°, and throughout Ireland. Now 54°-55°.

Type in Great Britain, Scottish.

Bogs and mountains; very rare, if not quite extinct in the wild state. *Fl.* May, June.

1. Formerly wild in the mountainous parts of Kerry, where the *Arbutus* grows, according to Mr. Harrison, quoted in Ray's "Synopsis," p. 442. Dr. Smith also speaks of a few small shrubs still remaining among the rocks in 1756.—  
 2. Some trees on a hill-side at Coolnamuck, Waterford, near Carrick-on-suir, are mentioned by Sir W. Wilde (*Cat. Antiq. R.I.A.*, p. 199); but Miss S. Grubb, of Clonmel, has heard, upon good authority, that the seed was brought from Sweden,

and planted at Coolnamuck by the grandfather of one of the late proprietors. Lady Louisa Knox has kindly informed us that some very old firs used to grow on a hill at the back of the house at Knocklofty; these trees have all been cut down, and their claim to be considered indigenous is at least doubtful.—8. There is one large and old tree, supposed to be a last relic of the ancient forests, still growing on an open bog at Deal Castle, near Crossmolina, at the head of Lough Conn, in Mayo; and this venerable fir tree, which is probably the same referred to in Mackay's second catalogue, as growing near the foot of Nephin, has been lately fenced in, and is carefully preserved by the Earl of Arran, who is the owner of the land. Wade, in his list of the rare plants of Galway, says that he noticed some stunted, but very old, fir trees in a few scattered localities in Connemara (Dubl. Soc. Trans., Vol. ii., 1801). It is to be feared that yews and not fir trees were observed by Dr. Wade, especially as, after diligent search, our friend Mr. G. H. Kinahan has not succeeded in finding any wild firs in Connemara.—(10.) In Warringstown, in the County of Down; *Threlkeld* (perhaps planted).

Reference may be made to a work entitled "Ireland's Natural History," by Dr. Boates (1652), for some account of the traditions respecting the ancient forests of Ireland.

It has been stated that the cones of *P. Pinea*, *P. Pinaster*, and of *Abies excelsa*, have occurred in the Irish bogs; but we have not been able to obtain any direct evidence on the subject.

## MONOCOTYLEDONES OR ENDOGENÆ.

## [ORDER TRILLACEÆ.]

[*Paris quadrifolia* (Linn.) is stated by Smith to grow "in the wood near Ross Castle, near the lake" of Killarney, but has not been found there by any subsequent observer.]

## ORDER LXV.—HYDROCHARIDACEÆ.

*HYDROCHARIS* Linn.1. *H. Morsus-ranæ* (Linn.)—*Frog-bit*.

Districts - - - - 5 6 7 8? - 10 - 12

Lat. 52°-55°. Middle and North of Ireland chiefly.

Type in Great Britain, English, inclining to Germanic.

Ditches and bog-holes; rare and local. *Fl.* July, August.

5. Common in the bog of Curragher, Dublin; *Wade Rar.* In bog-pits near Balruddery (Dr. Scott); *Mackay Rar.* Abundant in ditches by the Boyne, near Slane, and thence to Drogheda; *D. M.*—6. In drains on a marsh by the river Fergus, a little above the bridge at Ennis; *Mackay Cat. Ir.*—7. In the county of West Meath; *Mackay Rar.* Plentiful about Mullingar; *Mr. F. J. Foot.*—8.? In the turfy ditches about Ballinahinch, Connemara; *Wade Rar.*—10. Near Cavan; *Flor. Hib.* Belturbet; *D. M.*—12. Shores of Lough Neagh at Portmore; Lough Neagh at Crumlin; Bog-holes near Portaferry; *Flor. Ulst.* Abundant in all the drains near Portmore, Antrim; *D. M.*

*STRATIOTES* Linn.1. † *S. aloides* (Linn.)—*Water-soldier*.

Districts (1) - - - 5? 6? - - - 10 - (12)

Lat. 54°-56°. Possibly native in the North of Ireland.

Type in Great Britain, Germanic.

Ditches and lakes; very local, and probably not indigenous. *Fl.* July.

1. Naturalized in Ballyphehane Bog; *Flor. Cork*; and still found there by Mr. J. Sullivan.—5. Canal near Drogheda; *Prof. E. Murphy* (not found there by Mr. J.

*B. Hamilton*).—6 (or 7). Banks of the Shannon near Portumna; *Flor. Hib.* (not found recently).—10. In a drain near Crum Castle, on the banks of Lough Erne (Dr. Scott). In drains by the side of the road near Castle Saunderson, Cavan; *Mackay Cat. Ir.* Plentiful on the shores of Lough Erne, from Drumgown, in Fermanagh, to Belturbet, in Cavan; profusely where the canal joins Lough Erne; and also in lakes between Belturbet and the town of Cavan; *D. M.*—12. Belfast watercourse (Mr. Templeton); *Flor. Hib.* Dams at White-house; *Flor. Ulst.* Springfield dam; *Flor. Belf.* (planted near Belfast).

Thoroughly at home in the lakes and ditches of Cavan and Fermanagh, but like *Anacharis*, it is a plant which very quickly spreads when once introduced. In England its distribution is "Germanic." In France there is only a single locality where the male plant alone occurs. In Germany it is stated to have been originally planted, now abundant.

#### ANACHARIS Rich.

##### 1. \* *A. Alsinastrum* (Bab.)—*Water Thyme*.

*Elodea canadensis* (Rich.), Bentham.

Districts 1 2 3 - 5 6 7 - - - 12

Canals, ponds, and streams; as yet rather local. *Fl.* July, October.

A native of America recently introduced, but now not unfrequent in canals, streams, and ponds in many parts of Ireland. Abundant in the canals near Dublin and Belfast, whence it has extended to Lough Neagh and the river Shannon, and is still spreading, having become in some places a very troublesome weed. Professor Murphy describes it as being now a great nuisance in the river Lee, below Cork, having been introduced in 1851. Mr. Carroll has seen it growing plentifully in the river at Carlow.

Dr. Dickie has recorded its having been observed in a pond at Waringstown, Down, about the year 1836 (*Phytologist*, O. S. v., 88), and in his *Flora of Ulster* it is stated to have been known near Lisburn for more than twenty years previous to 1864.

## ORDER LXVI.—ORCHIDACEÆ.

## ORCHIS Linn.

1. *O. Morio* (Linn.)—*Green-winged Orchis*.

Districts - - 3 4 5 6 7 8 9 - - -

Lat. 52°-54°. East and Middle of Ireland, chiefly.

Type in Great Britain, English.

Meadows and pastures; rather rare. *Fl.* May, June.

3. Castle Inch; Freshford; Kilmanagh, &c., in Kilkenny; *Rev. S. Madden*.—4. Baltinglass, Wicklow; *Mr. T. Chandlee*. In Wicklow, along the road-side half-way between Woodenbridge and Aughrim; *D. M.*—5. Lands about Loughlinstown; sand-banks below Raheny; *Ir. Flor.* Frequent in the county of Dublin; *Flor. Hib.* and *D. M.* Straffan, Kildare; *Mr. J. Douglas*.—6. Near Portumna; *Herb. Mackay*. Abundant on the "Eskers," near Ballinasloe! *Mr. F. J. Foot*.—7. In West Meath; *Mr. F. J. Foot*.—8. Road-side, in one place, between Clifden and Roundstone; *Prof. Melville*.—9. On the "Eskers," near Athlone, in Roscommon; *Mr. F. J. Foot*.

Scarcer in the west. Mr. Carroll has not been able to find *O. Morio* in any part of the county of Cork; and he informs us that Mr. Drummond's specimen, preserved under the name of "*O. Morio*," is really *O. mascula*, which was probably also the plant gathered by Mr. Nash and Mr. Townsend (see *Flor. Cork*).

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

Districts 1 2 3 4 5 6 7 8 9 10 11 12

Lat. 51°-56°. Throughout Ireland.

Type in Great Britain, British.

Pastures and woods; frequent. *Fl.* May.

*Var. β speciosa* (*O. speciosa*, Host).

4. On a boggy field adjoining the Murrough of Wicklow (1832); *D. M.*

Ranges from sea-level to 1100 feet on Ben Evenagh, Derry (*D. M.*).



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

Districts 1 2 3 4 5 6 7 8 9 10 11 12

Lat. 51°–56°. Throughout Ireland.

Type in Great Britain, British.

Woods, banks, pastures, and heaths; common. *Fl.* June.Ranges from sea-level to 1950 feet in Donegal (*Flor. Ulst.*).4. *O. latifolia* (Linn.)—*Marsh Orchis*.

Districts 1 2 3 4 5 6 7 8 9 10 11 12

Lat. 51°–56°. Throughout Ireland.

Type in Great Britain, British.

Boggy places and wet meadow, sand-hills, &amp;c.; frequent.

*Fl.* June.*O. incarnata* (Linn.) is the more frequent form, but we do not feel any confidence in distinguishing it from *O. latifolia*.A large and early-flowering variety, remarkable for attaining the height of nearly three feet, has been found near Step-aside, Dublin; *D. M.* (Dubl. Nat. Hist. Soc. Proceedings, iv., p. 180.)

Ranges from sea-level to 700 feet in Derry.

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

Districts - 2 3 4 5 6 7 8 9 10 - 12

Lat. 52°–56°. Middle of Ireland chiefly.

Type in Great Britain, Germanic, inclining to English.

Calcareous pastures; local, and rather rare. *Fl.* July.

2. Once found on the shore of Little Island, Cork; *I. C.* Ballyarthur; by the Funcheon at Ballyhindon; on a wall at Moore Park; Glanworth; Carrick-a-brick; but rare in Cork; *Mr. T. Chandlee*. Common near Clonmel, both in Tipperary and Waterford; *Miss S. Grubb*.—3. In Kilkenny and Queen's County; *Rev. S. Madden*.—4. Near the Sugar Loaf, &c., in Wicklow; *D. M.*—5. Common in the County of Dublin; *Flor. Hib.* Glasnevin; Scribblestown; Finglas; Raheny; Kilbarrock; Portmarnock; *Ir. Flor.* Common near Ballytore, Kildare; *I. C.* 6. Castle Taylor, Galway; *A. G. M.* Abundant in Burren, Clare; *Mr. F. J. Foot*.—7. Not uncommon in the midland counties; *Mr. F. J. Foot*.—8. On the west side of Galway; *Prof. Melville*.—9. Roscommon; *Rev. S.*

*Madden*.—10. Plentiful about Oldcastle, Cavan; *Flor. Hib.* Banks by the side of the road to Ballyshannon, a few miles from Enniskillen; and in County Armagh; *Flor. Ulst.*—12. A single specimen at Benone, Magilligan, Derry; *D. M.*

Mr. F. J. Foot and Dr. O'Brien found in Burren a number of plants all bearing double flowers.

*Obs.*—*O. fusca* (*Flor. Hib.* and *Flor. Cork*), *O. ustulata* (*Wade Dubl.* and *Flor. Cork*), and *O. hircina* (*Wade Rar.*) have been included in the Irish Flora, but we believe erroneously.

### GYMNADENIA R. Br.

#### 1. *G. conopsea* (R. Br.)—*Fragrant Orchis*.

*Orchis conopsea* (Linn.) Benth.

Districts 1? 2 3 4 5 6 7 8 9 - 11 12

Lat. 51°–56°. From South to North of Ireland.

Type in Great Britain, British.

Pastures and heaths; frequent. *Fl.* June, July.

1. Rare in the south. Banks of the Lee (Mr. Drummond); *Flor. Cork*, but not recently found in Cork.—2. Near Clonmel; *Miss S. Grubb*.—3. Wilton and Bellone, Kilkenny; *Rev. S. Madden*. Not unfrequent, especially on heaths over limestone, in many parts of the middle and north of Ireland.

#### 2. *G. albida* (Rich.)—*White Mountain Orchis*.

*Habenaria albida* (R. Br.), *Brit. Flor.*, *Flor. Hib.*, Benth., &c.

Districts 1 2 3 4 - 6 - 8 9 10 11 12

Lat. 51°–56°. West and North of Ireland chiefly.

Type in Great Britain, Scottish.

Mountain pastures; rather local. *Fl.* June, July.

1. Near Rossbeigh, Kerry; *the late Mr. J. Woods*. Gap of Dunloe; *Mr. James Cooke*.—2. In Dunbullogue Glen, five miles north of Cork, and on a Danish fort in the same district; *Flor. Cork*. Heathy places near Bally-M'Carbery, Waterford; *Miss S. Grubb*.—3. In a field between Cullenagh and Stradbally, Queen's County; *Mackay Rar.*—4. Near Luggylaw and Three-rock mountain; *Wade Rar.* Luggielaw and other places in Wicklow; *Flor. Hib.*—7. Frequent in Burren; *Rev. T. O'Mahony*. Plentiful about

Lisdoonvarna; *Mr. F. J. Foot.*—8. A little west of Galway; and on the west side of Lough Mask; *Prof. Melville.*—9. Near Foxford, Mayo; *A. G. M.*—10. In Fermanagh (Dr. Scott); *Mackay Rar.* In Tyrone; *Admiral Jones.*—11. Not unfrequent in southern Donegal, near Dunkineely, Killybegs, &c.; *A. G. M.*—12. Top of Knockagh; a mile east from Ballinure; Squire's Hill; Carrickfergus commons; *Flor. Ulst.* Cave Hill; *Flor. Belf.* Plentiful at Dungiven, but rare in Derry. Near Carrick-a-rede, Antrim; *D. M.*

At about 800 feet in Donegal, and from 600 to 800 feet in Derry.

### NEOTINEA Reich.

#### 1. *N. intacta* (Reich.)—*Close-flowered Orchis.*

*Orchis intacta* (Link.), *O. atlantica* (Willd.), *Aceras densiflora* (Boiss.) *Aceras secundiflora* (Lindl.)

District - - - - - 6 - - - - -

Lat. 53°-54°. West of Ireland—Galway only.

Hibernian type. Not found in Great Britain.

Calcareous pastures; very rare *Fl.* May.

6. In a large rocky pasture field called the "Hunting Course," to the west of the Nut-wood at Castle Taylor, Galway; *Miss F. M. More*, May 1864 (*Seemann's Journal of Botany*, ii., p. 228, iii., p. 1.)

The plant grows here quite sparingly, accompanied by *Gentiana verna*, *Dryas octopetala*, *Geranium sanguineum*, *Ophrys muscifera*, *Spiranthes autumnalis*, and many other interesting species.

### HABENARIA R. Br.

#### 1. *H. viridis* (R. Br.)—*Frog Orchis.*

Districts 1 2 3 4 5 6 7 - 9 - 11 12

Lat. 51°-56°. Throughout Ireland.

Type in Great Britain, British, inclining to Scottish.

Hilly pastures; rather rare. *Fl.* June, July.

Widely distributed from the south to the extreme north of Ireland, but rather scarce, except in the basaltic districts of Antrim and Derry, where it is abundant.

At about sea-level in many places, and from 600 to 1000 feet in Derry.

2. *H. bifolia* (R. Br.)—*Lesser Butterfly Orchis*.

Districts 1! 2 3 4 5 6! 7 8! 9! - 11 12  
 Lat. 51°-56°. From South to North of Ireland.

Type in Great Britain, British.

Heaths, pastures, woods; rather rare. *Fl.* June, July.

Far less common than *H. chlorantha*, but we have seen specimens from districts 1, 6, 8 and 9. In some of the other districts *H. chlorantha* has probably been gathered for *H. bifolia*.

3. *H. chlorantha* (Bab.)—*Greater Butterfly Orchis*.

*H. bifolia* var. Bentham.

Districts 1 - - 4 5 6 - 8 9 - 11 12  
 Lat. 51°-56°. Throughout Ireland.

Type in Great Britain, English [or British.]

Boggy fields, mountain pastures, and woods; frequent.  
*Fl.* June to August.

This is probably more common than *H. bifolia* in Ireland. It abounds in the mountain pastures of the west and north, and we have seen it from many localities in the districts above entered, but it has seldom been distinguished from *H. bifolia*.

## OPHRYS Linn.

1. *O. apifera* (Huds.)—*Bee Orchis*.

Districts 1 2 3 4 5 6 7 8 9 - - -  
 Lat. 51°-56°. South and Middle of Ireland.

Type in Great Britain, English, inclining to Germanic.

Calcareous or clayey pastures, and sandhills; rare. *Fl.* June, July.

A scarce plant, occurring here and there in most of the southern and middle counties of Ireland. It has been found in Cork, Waterford, Tipperary, Kilkenny, Queen's County, Wicklow, Dublin, Kildare, King's County, Limerick, Clare, Galway, and Westmeath; extending as far north as Lough Carra, Mayo (*Miss K. M. Lindsey*), and Sligo Harbour (*the late Mr. J. Wynne* and *Rev. S. Madden*). It appears to be as frequent in the west as on the east side of Ireland, and is known to be abundant in several parts of Galway.

2. *O. muscifera* (Linn.)—*Fly Orchis*.

Districts - - 3 - 5 6 7 8 - - - -

Lat. 52°-54°. Middle of Ireland.

Type in Great Britain, English, inclining to Germanic.

Calcareous pastures and bogs on limestone; very rare.  
*Fl.* June.

3. On Tullavolta bog, near Johnstown, Kilkenny; *Rev. S. Madden* (1838), and the late *Rev. J. Despard* (1848).—5. "Between the Deer-park wall and Finglas river, county Dublin, in the pastures frequently; and more rare between Rathfarnham and Kilgobbin mountain, same county." *Wade Rar.* Levitstown and Rosetown, Kildare; *Mr. F. Haughton*. Near Athy, Kildare; *Miss Haughton*. Boggy fields by the road, half way between Ballitore and Athy; *Mr. T. Chandlee*. On Dolardstown Bog! Kildare; *Mr. J. Douglas*.—6. About Castle Taylor, Galway (not unfrequent); *A. G. M.* Glen Corrib, near Headford; *Miss K. M. Lindsey*.—7. Plentiful at Annaghmore, King's county; *Mr. M. P. Edgeworth*.—8. Near Ross lake, on the west side of Lough Corrib; *Prof. Melville*.

## SPIRANTHES Rich.

1. *S. autumnalis* (Rich.) *Fragrant Lady's Tresses*.

Districts 1 2 - 4 5 6 7 - 9 - - -

Lat. 51°-54°. South and Middle of Ireland.

Type in Great Britain, English.

Calcareous pastures; local and rare. *Fl.* August, Sept.

1 and 2. Strand at Ballycotton and Timoleague; *Drummond*. Rare near Cork, but occurs in both divisions of the county; *I. C.*—2. Ballybrado, Tipperary; *Prof. Harvey*.—4. On Bray Common; *Flor. Hib.* Near the shore between Dalkey and Bray; *D. M.*—5. Bullock; *Ir. Flor.* Killiney; *Miss M. O'Kelly*. Phoenix Park; *Flor. Hib.* Loughlinstown; *D. M.*—6. Castle Taylor, Galway; *A. G. M.* In the Great Island of Arran; *Mr. L. Ogilby*. Near Kinvarra, and south of Black Head in Burren, Clare; *Mr. F. J. Foot*. In the Park at Portumna; *D. M.*—7. Eastern shores of Lough Derg; *D. M.*—9. Shore of Lough Carra, near Moore Hall, Mayo; *M. J. Ball*.

2. *S. gemmipara* (Lindl.)—*Irish Lady's Tresses*.*S. cernua* (Rich.) Bab. Man. *Neottia gemmipara*, Smith.

District 1 - - - - -

Lat. 51°–52°. South-west of Ireland—Cork only.

Hibernian type. Not found in Great Britain.

Moist pastures; very rare. *Fl.* July, August.

1. At Dunboy; on the strand of the mainland, opposite the western redoubt, on Bear Island, Bantry Bay; (Mr. J. Drummond, 1810); *Flor. Cork*. On a meadow sloping towards Bearhaven; *Mr. J. Woods* (1855). In a rushy meadow sloping to the sea, west of Castletown, on rather dry ground; *Dr. E. Perceval Wright*.

It has long been disputed whether this orchid is peculiar to Ireland, or whether it is the same as the *S. cernua* of North America. Dr. Lindley, and Professor Reichenbach, of Hamburg, consider *S. gemmipara* and *S. cernua* as two separate species; while Mr. Bentham, having formerly given his opinion in favour of their distinctness, is now inclined to unite them. In either case, Castletown is the only locality known in Europe; but Professor Reichenbach informs us that *S. gemmipara* has been lately discovered on the west coast of North America, and also the valleys of the Rocky Mountains.

First found by Mr. Drummond at Dunboy, in 1810.

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

Districts 1 2 3 4 5 6 7 8 9 10 11 12

Lat. 51°–56°. Throughout Ireland.

Type in Great Britain, British.

Woods and moist pastures; not unfrequent. *Fl.* May, June.

Not an abundant species, but appears to be very generally distributed.

2. *L. cordata* (R. Br.)—*Heart-leaved Twayblade*.

Districts - - 3? 4 - - - 8 - - 11 12

Lat. 53°–56°. East, West, and North of Ireland.

Type in Great Britain, Scottish, inclining to Highland.

Boggy heaths on mountains; local and rather rare. *Fl.* June to August.

3.? Near Cullenagh, Queen's county (Mr. Bradbury); *Flor. Hib.*—4. Turfy marshes at Lough Bray, Wicklow; *Wade Rar.* At Lough Bray, above the lower lake; *Flor. Hib.* Glen-cree; *Mr. V. A. Smith.*—8. On Slieve Cor in Erris, Mayo; *D. M.*—11. On Slieve League; at Horn Head; and Bulbein mountain, Donegal; *Flor. Ulst.* On the mountains of Clonmany, Donegal; *Mr. C. Moore.*—12. At Newtownards; on Agnew's Hill; south face of Slieve Nanee; hills above Dundonald; Black Mountain; on Slieve Donard; *Flor. Ulst.* On the north-east side of Slieve Gullion, Derry; at Cushendall; and frequent on the mountains of Antrim; *D. M.*

From about 150 at Cushendall to 1500 in Derry (*D. M.*) 2000 feet on Slieve Donard (*Flor. Ulst.*)

#### NEOTTIA Linn.

##### 1. *N. Nidus-avis* (Rich.)—*Bird's-nest.*

*Listera Nidus-avis* (Hook). *Flor. Hib.* *Brit. Flor.*

Districts - - - 4 5 - 7 - 9 10 11 12

Lat. 53°-56°. East and North-east of Ireland.

Type in Great Britain, British, inclining to English.

Shady woods; very rare. *Fl.* June.

4. In the woods at the Dargle, Wicklow; *Prof. Harvey.*—5. In the thickets in Luttrells-town wood! county Dublin; *Wade Rar.*—10. In Farnham woods! Cavan; *Flor. Hib.*—12. Colin Glen; Cave Hill Glen; Glenarm Demesne; Glen of Altmore; Cushendall; and at Drumnasole, Antrim; *Flor. Ulst.* Garvagh; Castle Dawson woods; and Errigal banks, Derry; near Port-glenone, Antrim; *D. M.*

#### EPIPACTIS Rich.

##### 1. *E. latifolia* (All.)—*Broad-leaved Helleborine.*

Districts 1? 2 3 4 5 6 - - - 10 - 12

Lat. 51°-56°. From South to North of Ireland.

Type in Great Britain, British, inclining to English.

Woods, thickets, and rocky places; local, and rather rare. *Fl.* July, August.

1. ? Woods at Ross, Killarney; *Wade Rar.* (probably *E. media*). Plentiful near the mines, Mucruss woods, Killarney; *Mackay Rar.*—2. Wood at Castlehyde; *Flor. Cork.* North Cork only; *Prof. E. Murphy*, and *I. C.* In south Tipperary; *Miss S. Grubb.*—3. Kilmanagh Rectory, Kilkenny; *Rev. S. Madden.*—4. Enniskerry! *Ir. Flor.* Bray; *Flor. Hib.*—5. Sandhills at Portmarnock; and about Glasnevin; *D. M. Collon*, Louth; *Ir. Flor.*—6. At Castle Taylor, and at Garryland, Galway; *A. G. M.*—10. Islands in Lough Erne, Fermanagh; *D. M. Farnham*; *Flor. Hib.* Woods at Castle Dillon, Armagh; *A. G. M.* (this or *E. media*).—12. Abundant in woods about Coleraine, and in Bawn's Glen, Derry; *D. M.* Near Belfast; Carrickfergus, Glenarm, Hollywood, &c.; *Flor. Ulst.* Hillsborough Park; *Mr. S. A. Stewart.* At Malone! near Belfast; *Mr. D. Orr.* And in the same place, sparingly, a slender form which appears to be *E. viridiflora* (Reich.).

*E. media* (Fries.) *E. purpurata* (Smith.)

Districts 1 - - - 5 - - - - - 12

Rare? 1. Killarney; *C. C. B.*—5. In county Dublin! *D. M.*—12. Woods in Glenarm Park, Antrim; *Mr. S. A. Stewart.* No doubt overlooked in other localities.

*E. ovalis* (Bab.) *E. atrorubens* (Reich.), *Lond. Cat.*

District - - - - - 6 - - - - -

Rare. 6. Near the summit of one of the highest limestone mountains in Burren; *Rev. T. O'Mahony.* Abundant on the hills round Ballyvaughan; occurs also at Newmarket-on-Fergus, Clare; *Mr. F. J. Foot.*

2. *E. palustris* (Linn.)—*Marsh Helleborine.*

Districts - - 3 4 5 6 - - 9 10 11 12

Lat. 52°-56°. Middle and North of Ireland.

Type in Great Britain, English, inclining to British.

Bogs and moist grassy places; local, and rather rare. *Fl.* July.

3. Wilton, Kilkenny; *Rev. S. Madden.* Plentiful in



marshes in the Queen's County; *Mackay Rar.*—4. Murrough of Wicklow; *D. M.* Enniskerry; *Ir. Flor.*—5. Foot of Dublin Mountains, particularly near Stag's-town and King's-town, &c.; *Wade Rar.* At Johnstown, near Kilgobbin; *Mackay Rar.* Near Howth; *Ir. Flor.* Portmarnock; *D. M.* Several places near Ballitore, Kildare; *I. C.*—6. Along the shores of Lough Derg (with *Inula salicina*); *D. M.* Bog at Kilmacduagh, Galway; *A. G. M.*—9. Shores of Lough Carra, Mayo; *A. G. M.*—10. In the county Fermanagh; *Mackay Rar.* Island on Lough Erne, opposite Crum Castle; *Flor. Ulst.*—11. Shore of Dunfanaghy Loch, Donegal; *Mr. C. Moore.* On the shore at Horn Head; *Prof. E. Murphy.*—12. Very rare in Ulster. On the south side of Belfast Lough, half-a-mile above Knockmagunny Hill; Island Magee; *Flor. Ulst.* In a low meadow south of Ballintra, Antrim; *D. M.* By a lough-side in Creveteneau, Ballinahinch; *Threlkeld.*

### CEPHALANTHERA Rich.

1. *C. ensifolia* (Rich.)—*Narrow-leaved White Helleborine.*

*Epipactis ensifolia* (Sw.), Brit. Flor., Flor. Hib.

Districts 1 - - - - - 11 12

Lat. 51°-55°. South-west and North of Ireland.

Type in Great Britain, English, inclining to Intermediate.

Woods in mountainous districts; very rare. *Fl.* June.

1. Wood at Glengariff! (near Bantry); *Flor. Hib.* Adrigole, near the base of Hungry Hill, Cork; *I. C.*—11. Wood near Lough Esk! Donegal; *Mrs. Brooke.*—12. At Duneane, near Larne, Antrim (Mr. Whitla); *Flor. Ulst.* (under *C. grandiflora*). Found by Mr. Whitla in the county of Antrim, in 1835; *Flor. Hib.* (*E. grandiflora*). "In woods at Muckamore House (near Antrim), sparingly; and at Glenavy" (also near Antrim); *Mr. Whitla.* In Shane's Castle woods, on the shores of Lough Neagh; *D. M.*

The specimens preserved in Dr. Mackay's Herbarium under the name of *E. grandiflora*, from Mr. Whitla, are luxuriant examples of *C. ensifolia*, and we have, therefore, little hesitation in transferring the locality to *C. ensifolia*. A specimen

obtained near Shane's Castle, and preserved in the Antrim Herbarium, is abnormal and unsatisfactory, but has the narrow bracts of *C. ensifolia*, though its leaves are much broader than usual. *C. ensifolia* is reported, also, from the county of Down (*Flor. Ulst. App.*), a likely locality.

*Obs.*—*C. grandiflora* (Bab.) is included in the "Flora of Cork" (on the authority of Dr. Hincks) as having been found in the woods of Glengariff; but here, as in Antrim, we fear that a broad-leaved form of *C. ensifolia* has been mistaken for *C. grandiflora*.

### MALAXIS Sw.

#### 1. *M. paludosa* (Sw.)—*Bog Orchis*.

Districts 1 - - 4 5 6 - - - - - 12

Lat. 51°-56°. From South to North of Ireland.

Type in Great Britain, British.

Spongy bogs, chiefly in mountainous districts; rare and local. *Fl.* July to September.

1. In a marsh between Priest's-leap mountain and Ashgrove, Kerry; *Mackay Rar.* Between Inchigeela and Macroom; *Mr. J. Sullivan*.—4. Above the Waterfall at Powerscourt and at Tittour, Wicklow; *Flor. Hib.* Sugar Loaf mountain; *Mackay Cat. Ir.* Abundant on a bog between Lough Dan and the road to Roundwood, Wicklow; *D. M.* Turfy bogs near the mines of Ballymurtagh; and abundantly at Tyhtewer, Wicklow; *Ir. Flor.* Glen-cree; *Mr. V. A. Smith*.—5. Kelly's glen, Dublin; *D. M.*—6. In a marshy place near Lisdoonvarna, Clare, on the coal measures; *Rev. T. Warren*.—12. Marshy ground on the ascent to Slieve Nanee, on the Clough side; Moyntagh bogs, between Lurgan and Lough Neagh; Rathlin Island; *Flor. Ulst.* On an elevated bog above Dunloy, Antrim; *D. M.*

From near sea-level in Clare to 1000 feet on Slieve Nanee.

## ORDER LXVII.—IRIDACEÆ.

## SISYRINCHIUM Linn.

1. *S. anceps* (Lam.)—*Narrow-leaved Sisyrinchium.*

District - - - - - 6 - - - - -

Lat. 53°-54°. West of Ireland—Galway only.

Hibernian type. Not found in Great Britain.

Boggy and heathy places; very rare. *Fl.* July.

6. In several places near Woodford, Galway. In a low meadow on the bank of a stream called the Woodford river, four miles from Woodford and one mile from Lough Derg, near the police barrack at Rossmore. In a piece of mountain pasture, in the opening of a wood on a hill two miles north-east of Woodford, about 300 feet above the sea; also on the race-course near the village of Woodford; there is no garden near, and no probability of its having been cultivated in the neighbourhood; *Mr. James Lynam* In a coarse meadow in the opening of the wood half a mile north of Woodford; *Mr. James Lynam* in a letter addressed to Dr. Mackay (1847). *Mrs. Matthews*, in a letter to the late Dr. Mackay, describes the plant as having been observed by her in two places more than a mile apart, in a wet ditch by the side of a mountain road adjoining a stony moor, and in another similar marshy place abounding with *Narthecium*, *Anagallis tenella*, *Habenaria bifolia*, *Drosera rotundifolia*, and other bog plants.

When searching for *Inula salicina* in August, 1865, Dr. Moore paid a hasty visit to Woodford, and though he did not succeed in finding the *Sisyrinchium*, still, judging from the nature of the locality, he is inclined to believe the plant to be indigenous in the stations above given.

The claims of this species to be considered a native of Ireland are of especial interest with reference to the connexion between the British and North-American Floras (see *Cybele Britannica* iv., pp. 387, 391; and *A. De Candolle, Geographie Botanique Raisonnée*).

Discovered by Mr. James Lynam in 1845.

## IRIS Linn.

1. *I. Pseud-acorus* (Linn.)—*Yellow Flag*.

Districts 1 2 3 4 5 6 7 8 9 10 11 12  
 Lat. 51°–56°. Throughout Ireland.

Type in Great Britain, British.

Marshy places, wet meadows, &c.; common. *Fl.* June, July.

2. † *I. foetidissima* (Linn.)—*Stinking Iris, Gladdon*.

Districts 1 (2) 3 4 5 (6) (7) - - 10 - 12  
 Lat. 51°–56°. From South to North of Ireland.

Type in Great Britain, English.

Hedge-banks, thickets, fields, &c.; rare, and usually in suspicious stations. *Fl.* June, July.

1. Mucruss, Killarney; *Admiral Jones*. In a small island near Glengariff; *Mackay Rar.* Near Carrigrohane Castle; Groves at Blarney; on a limestone rock on the south side of Little Island; *Flor. Cork*. Very rare, and not native near Cork, but well established in a few localities; *I. C.* Limestone rocks at Glanworth, Fermoy (naturalized); *Mr. T. Chandlee*.—  
 3. Field between Ballybracken and Kilkenny; *Mackay Rar.* On the banks of the Barrow, near Portarlinton; *Flor. Hib.* At Fossaro, south of Bray; *Wade Rar.*—4. At Tyhtewer, Wicklow; *Ir. Flor.*—5. In a field a little beyond Templeogue; *Mackay Rar.* Ireland's Eye and Howth; *Wade Rar.* Ditch-banks near Kilgobbin; and woods at Templehill, near the Black Rock; *Mackay Cat. Ir.* Dalkey, Killiney Bay; Tagony; on the lands of Mr. Ledwich, and abundantly at Scholarstown; *Ir. Flor.* Kilgobbin; *Flor. Hib.* In Narraghmore wood; and on a ditch-bank by the road of Ballykillane, Kildare; *I. C.*—6. In Ennis churchyard, County Clare; *Wade Rar.* In shrubberies at Castle Taylor, Galway, probably planted; *A. G. M.*—7. By a road a little east of Edenderry, towards Rathangan, naturalized; *Prof. Melville*.—  
 (9.) Planted near Foxford, Mayo; *A. G. M.*—10. In Armagh; *Flor. Ulst.*—12. Plentiful on a ditch-bank at Culmore, Derry; and near Coleraine, naturalized; *D. M.*

Woods at Grey Abbey, along the river below Newcastle, Down; *Ir. Flor.*

Perhaps native in some of these localities, but no doubt introduced in most of them.

[*Iris tuberosa* (Linn.) On a ditch bank near the Botanic Garden, Cork (*Flor. Hib.*) At Evergreen, "not even naturalized" (*Flor. Cork.*)]

[*Crocus vernus* (Willd.) is described as plentiful near the old Castle at Dunganstown, Wicklow (*Flor. Hib.*), being no doubt the remains of former cultivation.]

## ORDER LXVIII.—AMARYLLIDACEÆ.

### NARCISSUS Linn.

#### 1. † *N. biflorus* (Curt.)—*Pale Narcissus.*

Districts ? ? 3 - 5 6 - - - - -  
 Lat. 53°-54°. East and West of Ireland.

Naturalized in Great Britain.

Grassy places, usually near houses and towns; rare, and local. *Fl.* May.

Naturalized at Blarney, Carrigrohane, Woodlawn, &c.; *Flor. Cork.*, seen by Mr. Carroll on lawns, and in shubberies only—3. In a pasture field six miles from Portarlington; *D.M.*—5. In the closes near Clontarf, and under the skirts of the Hill of Howth, and in some closes near Donlack's-well; *Threlkeld.* Fields and meadows between Clontarf and Raheny; about Scribblestown and Finglas; *Ir. Flor.* Finglas; *D'Alton Hist. Dubl.* Plentiful near the Obelisk at Killiney, no doubt planted; *A. G. M.* Abundant in fields near Dublin; *Flor. Hib.*—6. On the east side of the Great Island of Arran, on sandy pasture ground between Kilonan and the sea; *D. M.*

The localities at Newtown Park and Cabinteely given by Wade for *N. poeticus* probably belong to *N. biflorus*.

[*N. Pseudo-narcissus* (Linn.) *Daffodil.* Near Carrigrohane; Pouladuff; and on the banks of the Lee, under Mountdesart, in less suspicious stations than either of the

other two species; *Flor. Cork*. In Castle Inch church-yard, and several other places, as Domville and Kilmanagh in Kilkenny; *Rev. S. Madden*. Simmon's Court. Between Ball's-bridge and Merrion; Ballygall, near Glasnevin; near Drumcondra, &c.; *Wade Dubl.*]

[*N. poeticus* (Linn.) is described as naturalized about old Abbeys, and at Carrigrohane Castle in Cork; and in the County of Dublin, if the stations do not belong to *N. biflorus*.]

[*N. major* (Curt.) is stated to be the species found in fields near Templeogue, formerly recorded by Mackay as *N. Pseudo-narcissus*.]

The three latter occur in the vicinity of ruins, houses, and gardens, in places where there can be no doubt of their having escaped from cultivation. *N. biflorus* is the only species which is found in wild-looking localities.

[*Galanthus nivalis* (Linn.) *Snowdrop* is included in the "Irish Flora" as found on the banks of the Tolka, Dublin; but cannot be considered thoroughly naturalized in Ireland.]

## ORDER LXIX.—ASPARAGACEÆ.

### *ASPARAGUS* Linn.

#### 1. *A. officinalis* (Linn.)—*Wild Asparagus*.

Districts - 2 - 4 - - - - -  
 Lat. 52°-53°. South-east of Ireland.

Type in Great Britain, Atlantic.

Sandy ground by the sea; very rare. *Fl.* August.

2. On the isthmus of Tramore, in the sand; *Smith's "Waterford."* On the sand-hills at Tramore, Waterford (*Miss Grubb*) *I. C.*—4. Abundant on the shore near the town of Wexford [in the barony of Forth] (Messrs. MacGregor and Walker); *Mackay Addit.*

[*Convallaria majalis* (Linn.) In a wood at Chaffpool, near Ballymoate (Sligo), scarcely indigenous; *Flor. Hib.* In the Island of Inisfalen, in Lough Lane, Killarney, and in the woods round that lake; *Smith's "Kerry."* This grows in Castle Bernard Park, near the river Bandon; *Smith's "Cork."*

By the side of the river of Collygan; in a wood pretty plentifully; *Smith's* "Waterford."]

[*Polygonatum multiflorum* (All.) is also said, by Smith, to have been found in Castle Bernard Park; and is included in the "*Flora of Cork*" as naturalized sparingly in a grove at Blarney.]

[*Ruscus aculeatus* (Linn) "grows wild near Mucruss, and in the islands of Lough Lane;" *Smith's* "Kerry." Near Brinny, between Cork and Bandon; *Smith's* "Cork." Dungenourney glen; *Flor. Cork.* None of these localities have been recently examined.]

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ORDER LXX.—LILIACEÆ.

SCILLA Linn.

1. *S. verna* (Huds.)—*Early-flowering Squill.*

Districts - - - 4 5 - - - - - 12

Lat. 53°-56°. East and North-east coasts of Ireland.

Type in Great Britain, Atlantic, inclining to British.

Rocky pastures on the coast; very local. *Fl.* April, May.

4. Coast at Rockfield, Wicklow; *D. M.*—5. At the Ring's-end, neare Dublin (Mr. Heaton); *How Phyt. Brit.* (1650.) At Ring's-end, beyond Templeogue; *Threlkeld.* Howth and Ireland's Eye; *Wade Rar.* Killiney Hill; *Mackay Cat. Ir.* Banks above the sea, on the south side of Howth! Rochestown Hill [Killiney]; *Ir. Flor.* Plentiful at Clogher Head, and on Castlegar Hill, Louth; *Mr. J. B. Hamilton.*—12. Bangor; Holywood; Donaghadee; Ardglass; Headlands at the Giant's Causeway; Groomspout; Rathlin Island; Portstewart; Portrush; *Flor. Ulst.* Copeland Islands; *Mr. S. A. Stewart.* Plentiful from Downhill to Portrush, Derry; *D. M.*

ALLIUM Linn.

‡ *A. Babingtonii* (Borr.)—*Bulb-bearing Leek.*

*A. Ampeloprasum* var., *Brit. Flor. and Bentham.*

Districts - - - - - 6 - 8 - - - - -

Lat. 53°-54°. West of Ireland—Arran and Roundstone

Naturalized in Great Britain; occurring in Cornwall only.

Rocky places near the coast; very rare. *Fl.* August.

6. In several places in the Great Island of Arran, growing in the fissures of the rocks with *Adiantum*, and apparently wild; *D. M.*—8. On Illan Glas, opposite Roundstone; *C. C. B.* Near Roundstone sparingly; *Prof. D. Oliver*.

2. **A. Scorodoprasum** (Linn.)—*Sand Garlic*.

*A. arenarium* (Smith).

Districts 1 2 - - - - - - - - - -

Lat. 51°–52°. South-west of Ireland—Kerry and Cork.

Type in Great Britain, Intermediate, inclining to Scottish.

Mountain woods and sandy pastures; very rare. *Fl.* June, July.

1. At Killarney, plentiful in the thickets at Mucruss; *D. M.*—2. By the shore, near the town, at the south side of Foaty Island; *Flor. Cork* (plentiful in this locality; *D. M.*)

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

Districts - 2 3 4 5 - - - - - 12

Lat. 51°–55°. South and East of Ireland.

Type in Great Britain, English, inclining to British.

Dry pastures and banks; very local. *Fl.* July.

2. Fields near Glanmire, Cork; *Drummond*. Strand of the Little Island; hedge-bank at Ballinamought; *Flor. Cork*. Plentiful at Inchfield, Fermoy; *Mr. T. Chandlee*. Near Clonmel, by the Suir; *D. M.* On most of the pasture lands in this county; *Smith's "Waterford"* (No. 15.)—3. Near Kilmacow, Kilkenny; *Mr. T. Chandlee*.—4. Rockfield, Wicklow; *D. M.*—5. Plentiful at Portmarnock and Feltrim Hill (stations given for *A. arenarium* in *Flor. Hib.*); *D. M.* By the mill-race above Island-bridge, and in meadows near Bally-Griffin in Fingall, copiously; *Threlkeld*. Scribblestown; Drumcondra; Rathmines; *Wade Dubl.* Glasnevin! Finglas; Ballynure; Ballygall; banks of the Liffey, above Sarah's-bridge; *Ir. Flor.* In a field on the north side of the canal, above Phibsborough-bridge (the locality given for *A. carinatum*



in Flor. Hib.); *D. M.* Common in meadows and pastures about Dublin; *Flor. Hib.* Near the Phoenix Park; *D. M.* 12. Very rare in Ulster; along the shore between Holywood and Bangor; shores of Lough Neagh, near Shane's Castle; *Flor. Ulst.* Rockport; *Flor. Belf.*

4. *A. ursinum* (Linn.)—*Ramsons.*

Districts 1 2 3 4 5 6 7 8 9 10 - 12  
 Lat. 51°-55° or 56°. Throughout nearly all Ireland.

Type in Great Britain, British, inclining to English.

Damp woods and thickets; not unfrequent *Fl.* May, June.

Less abundant in the north and north-west.

[*Allium Moly* (Linn.) a native of the Pyrenees, and often cultivated, is become quite naturalized in plantations at Lowwood! near Belfast; *Mr. S. A. Stewart.*]

*Obs.*—*A. arenarium* and *A. carinatum* of Flora Hibernica are believed to be both *A. vineale*.

*SIMETHIS* Kunth.

1. *S. bicolor* (Kunth.)—*Variiegated Simethis.*

District 1 - - - - - - - - - - - - - - - - - - - - - -

Lat. 51°-52°. South-west of Ireland—Kerry only.

Type in Great Britain, Local, inclining to Atlantic.

Bushy and grassy places near the sea; very rare. *Fl.* May.

1. On the Abbey Island at Derrynane [“hills near Derrynane Abbey”] Kerry; *Rev. T. O'Mahony* (see “London Journal of Botany,” vii., 571.) Dr. E. Perceval Wright has seen it also on the coast of the mainland, a little west of Derrynane.

First found in Ireland by the Rev. T. O'Mahony in 1848.

*ENDYMION* Dum.

1. *E. nutans* (Dum.)—*Blue-bell, Wild Hyacinth.*

*Hyacinthus non-scriptus* (Linn.) *Flor. Hib.*, *Agraphis nutans* Link., *Scilla nutans* Sm.

Districts 1 2 3 4 5 6 7 8 9 10 11 12

Lat. 51°-56°. Throughout Ireland.

Type in Great Britain, British.

Woods and thickets, also on heaths; frequent. *Fl.* May.

[*Muscari racemosum* (Mill.) is described by Mr. John Sim as well established on the banks of the Blackwater, near Fermoy. *Phytologist*, N. S., iii., 353 (1859).]

[*Ornithogalum umbellatum* (Linn.) A single specimen was once found by Threlkeld in a low meadow between Finglas-bridge and Drumcondra.]

## ORDER LXXI.—COLCHICACEÆ.

### *COLCHICUM* Linn.

#### 1. *C. autumnale* (Linn.)—*Meadow Saffron*.

Districts - - 3 - 5 6 - - - - (12)

Lat. 52°-54°. South and Middle of Ireland.

Type in Great Britain, English.

Meadows and pastures; very local and rare. *Fl.* September.

3. Meadows by the River-side, between Kilkenny and Innistiogue; *Flor. Hib.* Freshford; Mount Juliet; Knocktopher (in the county); and Poulgower and Warrington, near the city of Kilkenny; *Rev. S. Madden*. Near Carlow; *Flor. Hib.* 5. Found by Mr. Ogilby about Finglas and Scribblestown; *Ir. Flor.*—6. Plentiful in moist meadows on the banks of the Shannon, below Limerick (Dr. Woods); *Mackay Cat. Ir.*—(12). About the ruins of Grey Abbey, Down; *Ir. Flor.* (perhaps introduced).

## ORDER LXXII.—ERIOCAULACEÆ.

### *ERIOCAULON* Linn.

#### 1. *E. septangulare* (With.)—*Pipewort*.

Districts 1 - - - - 6 - 8 - - 11 12

Lat. 51°-56°. West and North of Ireland.

Type in Great Britain, Scottish, inclining to Atlantic.

Lakes in mountainous districts; very local.

1. Abundant in the Cromeen Lakes, eight miles below Kenmare, behind Hungry Hill; *I. C.* Inchiquin Lake!

*Mr. T. Wright*—6. In pools on Mon-mor bog, between Miltown Malbay and Kiltrush, Clare! *Mr. C. Carter*.—8. Abundant in Connemara! *Wade Rar.* In small lakes within four miles of Galway, on the road to Oughterard; in several small lakes between Newport and Mount Nephin, Mayo; *Mackay, Rar.*—11. Lakes in “the Rosses,” Donegal; *Prof. E. Murphy.* Lough Berag, near Naren, Donegal; *Admiral Jones.*—12. Rathlin Island, Antrim (*Miss Gage*); *Flor. Ulst.*

Along nearly the whole extent of the west coast of Ireland, never found far from the sea. The recently discovered station in the Island of Rathlin is particularly interesting as connecting the Irish with the Scottish localities.

Ranges from sea-level to 300 feet, near Roundstone (*D. Oliver*). First found in Connemara by *Dr. Wade*; (*Pl. Rar.* p. 79.)

## ORDER LXXIII.—JUNCACEÆ.

## NARTHECIUM Huds.

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

Districts 1 2 3 4 5 6 7 8 9 10 11 12

Lat. 51°–56°. Throughout Ireland.

Type in Great Britain, British.

Bogs, moors, mountains; frequent. *Fl.* July, August.

Ranges from sea-level to 2000 feet in Derry; (*D.M.*)

## JUNCUS Linn.

1. *J. maritimus* (Sm.) *Lesser Sea-Rush.*

Districts 1 2 - 4 5 6 - 8 9 - 11 12

Lat. 51°–56°. Coast of all Ireland.

Type in Great Britain, British, inclining to English.

Salt-marshes and muddy sea-shores; frequent. *Fl.* July, August.

2. *J. acutus* (Linn.) *Great Sea-Rush.*

Districts 1 2 - 4 - - - - - - - - -

Lat. 52°–53°. South and South-east coasts of Ireland.

Type in Great Britain, English, inclining to Atlantic.

Sandy and muddy sea-shores; very rare. *Fl.* July, Aug.

1. Strand near Timoleague, Cork; *Drummond* (the species is rightly named; *I. C.*).—2. On a sand-bank called the Cunnegar, near Dungarvan, Waterford; *Flor. Cork*. Recently seen there by *Professor Murphy*. Near Tramore, Waterford (Miss S. Grubb); *I. C.*—4. Curacloa, Wexford (*J. Morrison*); *I. C.* Sandy sea-shore north-east of Arklow! *Flor. Hib.* Along the river side between Dunganstown and the sea-shore, Wicklow! *Ir. Flor.* Sandy shores between Wicklow and Arklow (*Mr. Hodgins*); *Flor. Hib.*

3. *J. effusus* (Linn.) *Loose-flowered Rush.*

*J. communis* var.  $\alpha$ . (Mey.) Brit. Flor. and Bentham.

Districts 1 2 3 4 5 6 7 8 9 10 11 12

Lat. 51°–56°. Throughout Ireland.

Type in Great Britain, British.

Wet and marshy places; common. *Fl.* July.

Ranges from sea-level to 1000 feet or more.

? 4. *J. conglomeratus* (Linn.)—*Close-flowered Rush.*

*J. communis* var.  $\beta$  (Mey.) Brit. Flor. and Bentham.

Districts 1 2 3 4 5 6 7 8 9 10 11 12

Lat. 51°–56°. Throughout Ireland.

Type in Great Britain, British.

Wet and marshy places; common. *Fl.* July.

This and the preceding are by many botanists considered forms of the same species.

5. *J. glaucus* (Ehrh.)—*Hard Rush.*

Districts 1 2 3 4 5 6 - - 9 10 11 12

Lat. 51°–56°. From South to North of Ireland.

Type in Great Britain, English, inclining to British.

Damp grassy places; frequent near the sea. *Fl.* July.

Less frequent inland, and by no means a general species in Ireland.

Var.  $\beta$  *diffusus* (*J. diffusus*, Hoppe).

At Ballyronan, Derry (Rev. W. T. Whan); *Flor. Ulst.*

This variety is by some botanists considered a hybrid between *J. effusus* and *J. glaucus*.

6. *J. obtusiflorus* (Ehrh.)—*Blunt-flowered Rush.*

Districts 1 - - 4 - - - - - 12

Lat. 51°–54°. South and East of Ireland.

Type in Great Britain, English, inclining to Germanic.

Boggy places near the coast; very rare. *Fl.* July, August.

1. Bog near Bandon! *Herb. Mackay.* Summerstown bog; *Flor. Cork.* And marked by Prof. Murphy as occurring in South Cork.—4. In marshy fields adjoining the Murrough of Wicklow; and at Killoughter, about three miles north of Wicklow; *D. M.*—12. Near the brick-works at Clough! on the shore of Dundrum Bay, Down, sparingly; *Mr. S. A. Stewart.*

A scarce plant, and the few localities known in Ireland are all situated on or near the sea coast.

6. *J. acutiflorus* (Ehrh.)—*Sharp-flowered Rush.*

*J. articulatus* Linn. var. Bentham.

Districts 1 2 3 4 5 6 7 8 9 10 11 12

Lat. 51°–56°. Throughout Ireland.

Type in Great Britain, British.

Bogs and wet or marshy places; common. *Fl.* June to August.

7. *J. lamprocarpus* (Ehrh.)—*Shining-fruited Rush.*

*J. articulatus* (Linn.) Bentham.

Districts 1 2 3 4 5 6 7 8 9 10 11 12

Lat. 51°–56°. Throughout Ireland.

Type in Great Britain, British.

Boggy and marshy places; frequent. *Fl.* July, August.

Var.  $\beta$  *nigritellus* (*J. nigritellus* D. Don.)

Rare.—9. On the bogs between Sligo and Ballina; *Mr. J. Ball.*—12. On the mountains of Antrim, but rare; *D. M.*

8. *J. supinus* (Moench).—*Bog Rush.*

*J. uliginosus* (Sibth.) Brit. Flor., *J. articulatus* var. Bentham.

Districts 1 2 3 4 5 6 7 8 9 10 11 12

Lat. 51°–56°. Throughout Ireland.

Type in Great Britain, British.

Boggy places and in water; frequent. *Fl.* June to August.

Ranges from sea-level to 1000 feet or more.

9. *J. squarrosus* (Linn.)—*Heath Rush*.

Districts 1 2 3 4 5 6 7 8 9 - 11 12  
 Lat. 51°-56°. Throughout Ireland.

Type in Great Britain, British.

Heaths, moors, and mountains; frequent, especially in upland districts. *Fl.* June to August.

Ranges from about sea-level to 2000 feet in Derry; (*D.M.*)

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

Districts 1 2 3 4 5 6 - 8 9 - 11 12  
 Lat. 51°-56°. Coasts all round Ireland.

Type in Great Britain, British.

Salt marshes, and wet places near the sea; frequent. *Fl.* June to August.

Chiefly the form *Gerardi*, but we are not able to distinguish between it and *J. compressus*.

11. *J. bufonius* (Linn.)—*Toad Rush*.

Districts 1 2 3 4 5 6 7 8 9 10 11 12  
 Lat. 51°-56°. Throughout Ireland.

Type in Great Britain, British.

Damp, sandy, and heathy places, and on ground flooded in winter; frequent. *Fl.* July, August.

*LUZULA* Cand.

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

Districts 1 2 3 4 5 6 7 8 9 10 11 12  
 Lat. 51°-56°. Throughout Ireland.

Type in Great Britain, British.

Woods, thickets, and rocky or heathy places on mountains; frequent. *Fl.* May, June.

Abundant in mountainous districts, and reaches to the summit of the highest mountains in the North of Ireland; to 2796 feet on Slieve Donard (*Flor. Ulst.*).

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

Districts 1 2 - 4 5 - - - - 10 - 12  
 Lat. 51°-56°.

Type in Great Britain, British.

Woods and hedges; rather local. *Fl.* April, May.

Frequent about Cork, in Wicklow, Dublin, Antrim, and Derry. Not noticed in the west of Ireland, but perhaps overlooked. The form called *L. Borreri* by the late Dr. Bromfield has been gathered in the Devil's Glen, Wicklow.

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

Districts 1 2 3 4 5 6 7 8 9 10 11 12  
 Lat. 51°-56°. Throughout Ireland.

Type in Great Britain, British?

Dry pastures; frequent. *Fl.* April, May.

Ranges from sea-level to nearly 3000 feet.

4. *L. multiflora* (Lej.)—*Heath Wood-Rush.*

*L. campestris* var. Brit. Flor. and Bentham.

Districts 1 2 3 4 5 6 7 8 9 10 11 12  
 Lat. 51°-56°. Throughout Ireland.

Type in Great Britain, British.

Bogs, moors, heaths; common. *Fl.* June, July.

Far more abundant than *L. campestris*, especially in boggy or mountainous districts.

## ORDER LXXIV.—ALISMACEÆ.

*ALISMA* Linn.1. *A. Plantago* (Linn.)—*Great Water-Plantain.*

Districts 1 2 3 4 5 6 7 8 9 10 11 12  
 Lat. 51°-56°. Throughout Ireland.

Type in Great Britain, British.

Lakes, ponds, ditches, and watery places; frequent. *Fl.*  
 July, August.

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

Districts 1 2 3 4 5 6 7 8 9 10 11 12  
 Lat. 51°-56°. Throughout Ireland.

Type in Great Britain, British.

Boggy and marshy places; frequent. *Fl.* June, July.

The variety *A. repens* (Davies) is not unfrequent on the margin of lakes in mountainous districts; and occurs also on the Murrough of Wicklow (*Flor. Hib.*).

3. *A. natans* (Linn.)—*Floating Water Plantain*.

Districts 1 - - - ? 6 - 8 - - - -  
 Lat. 51°-54°. West of Ireland.

Type in Great Britain, Atlantic.

Lakes and pools; very rare and local. *Fl.* July, August.

1. Ditches near the Upper Lake of Killarney; *D. M.* Lough Allua [Lough Lua,] at the source of the Lee (Mr. Drummond); *Flor. Cork.* 6. In pools on Monmor bog, between Miltown Malbay and Kilrush, Clare; *Mr. C. Carter.* Seen here by *D. M.* Plentiful in ditches adjoining Lough Derg, near Portumna, Galway; *D. M.*—8. Plentiful in Connemara; *Flor. Hib.* In a few lakes near Ballinahinch; *Wade Gallovid.* In Lough Mask *Prof. Melville.*

The stations of Hill of Howth (*Flor. Hib.*), and drains near Balruddery (*Wade Rar.*) are believed to be erroneous.

## SAGITTARIA Linn.

1. *S. sagittifolia* (Linn.)—*Arrow-head*.

Districts - - - - (5) 6 7 - 9 10 - 12  
 Lat. 52°-55°. West, Centre, and North-east of Ireland.

Type in Great Britain, English.

Ditches, rivers, canals, and lakes; local. *Fl.* July, August.

5. Not unfrequent in the canals near Dublin (but probably introduced); *D. M.* Holes between Glasnevin and Drumcondra-bridge; *Ir. Flor.*—6. In the Shannon, near Limerick; *I. C.*—7. Drains near Portumna; *Mackay Cat. Ir.* In the Shannon, above and below Lanesborough, in Longford; *Wade Rar.*; and thence has spread to the Royal Canal.—9. In Lough Key, near Boyle; *Mr. F. J. Foot.* And in the



Shannon; *Wade Rar.*—10. At the mouth of a small river opening into Lough Erne, Fermanagh; near Dungannon; and in the Bann, near Portadown, Armagh; *Mackay Rar.* Verner's Bridge; *Admiral Jones.* Lakes at Killikeen and Drigget, Cavan; *Flor. Ulst.* and *Flor. Hib.*—12. Drains in Portmore Park, and other places near Lough Neagh; Moynagh bogs; Maghera Ferry; Shane's Castle, &c.; *Flor. Ulst.* In the River Bann; on the shores of Lough Neagh; and in a small lake above Kilrea, Derry; *D. M.* In the Lagan; Belmont; and Portmore Lake; *Mr. S. A. Stewart.*

Along the whole course of the Shannon, and canals issuing from it; and in the streams connected with Lough Erne and Lough Neagh.

### BUTOMUS Linn.

#### 1. *B. umbellatus* (Linn.)—*Flowering Rush.*

Districts - 2 - - 5 6 7 - - 10 - 12

Lat. 52°-55°. South, Middle, and North-east of Ireland.

Type in Great Britain, English.

Rivers, ditches, canals, and lakes; local and rare. *Fl.* June to August.

2. Above the bridge of Fermoy; *Drummond*, verified by *Mr. T. Chandlee.* In pools at Gerah, near Fermoy; *Mr. T. Chandlee.*—5. In a ditch near the Grand Canal, a little below Lord Cloncurry's house, Kildare; *Mackay Cat. Ir.* In the Tolka, below Glasnevin-bridge, possibly introduced; *D. M.* In the Mattack river, near Drogheda, probably introduced; *Mr. J. B. Hamilton.*—6. About the Shannon, and near Carbally-bridge, Limerick; *Wade Rar.* Plentiful near Limerick; *Prof. Harvey.* Banks of the Shannon at Castle Connell; ditches near Corrofin, &c., in Clare; *Flor. Hib.* In the Lake Teenevan, near Gort; *Mr. C. Carter.* In marshes about the river Fergus; *Wade Rar.* Abundant about Ennis! *Rev. T. Warren.*—7. Sent from the Barrow to *Threlkeld.*—10. Shores of the upper Bann; and in the canal near Tandragee, Armagh; *Admiral Jones.* In the Blackwater, near Maghera; *Rev. G. Robinson.*—12. Lough Clay, near Killyleagh; *Flor.*

*Ulst.* In the Lagan Canal, from Belfast to Lisburn; (*D. M.*) introduced here; *Flor. Ulst.* In a rivulet at Lambeg, near Lisburn; *Rev. H. G. Carroll*.

Most abundant near the mouth of the Shannon.

*TRIGLOCHIN* (Linn.)

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

Districts 1 2 3 4 5 6 - 8 9 - 11 12

Lat. 51°–56°. Coasts of all Ireland.

Type in Great Britain, British.

Salt marshes on the coast; frequent, *Fl.* July, August.

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

Districts 1 2 3 4 5 6 7 8 9 10 11 12

Lat. 51°–56°. Throughout Ireland, British.

Type in Great Britain, British.

Wet meadows and marshy places; frequent. *Fl.* June to August.

From sea-level to 600 feet on Ben Evenagh; *D. M.*

ORDER LXXV.—TYPHACEÆ.

*TYPHA* Linn.

1. *T. latifolia* (Linn.)—*Great Reed-mace, Cat's-tail*.

Districts 1 2 - 4 5 - 7 8 9 10 11 12

Lat. 51°–56°. Throughout Ireland.

Type in Great Britain, British, inclining to English.

Lakes, ditches, and marshy places; frequent, but local. *Fl.* June, July.

2. *T. angustifolia* (Linn.)—*Narrow-leaved Reed-mace*.

Districts - - - - 5 - - - - - 12

Lat. 53°–55°. East of Ireland—Dublin and Antrim.

Type in Great Britain, English.

Lakes and ditches; very rare. *Fl.* June, July.

5. Between Sandymount and Merrion, abundantly; *Wade*

*Dubl.* In the lake at Sandymount (a variety smaller than usual) *Flor. Hib.* Marshes near Irishtown; *Ir. Flor.* (Extinct in some, if not all, of these stations).—12. In Lough Hanay, between Lisburn and Saintfield; *Flor. Hib.* Ditch by the Carrickfergus road at the turnpike gate near Belfast (probably extirpated) *Flor. Ulst.* Abundant on the shores of Portmore Lake, Antrim, and at Selchin by Lough Neagh; *D. M.*

*SPARGANIUM* Linn.

1. *S. ramosum* (Huds.)—*Branched Bur-reed.*

Districts 1 2 3 4 5 6 7 8 9 10 11 12

Lat. 51°–56°. Throughout Ireland.

Type in Great Britain, British.

Ditches, pools, &c.; frequent. *Fl.* July.

2. *S. simplex* (Huds.)—*Unbranched Bur-reed.*

Districts 1 2 - 4 5 - - 8 9 10 11 12

Lat. 51°–56°. Throughout Ireland.

Type in Great Britain, British, inclining to English.

Ditches, streams, canals, lakes, &c.; not unfrequent. *Fl.* July.

A form with long floating leaves, and which seldom flowers, is not uncommon in canals and rivers, and has often been mistaken for "*S. natans.*"

3. *S. natans* (Linn.)—*Floating Bur-reed.*

Districts - - - - - 8 - - 11 12

Lat. 53°–56°. West and North of Ireland.

Type in Great Britain, British [Scottish].

Lakes in mountainous districts; local and rare. *Fl.* August.

8. Not unfrequent in the lakes near Roundstone in Connemara; *D. M.*—11. Lakes near Slieve League and Lough Drimly near Culdaff, Donegal; *Flor. Ulst.*—12. Lakes near Fair Head, Antrim; *D. M.*

Some other localities, given in the "Flora of Ulster," require to be re-examined.

4. *S. minimum* (Fries)—*Least Bur-reed*.*S. natans* var. Bentham.

Districts 1 2 - 4 5 6 - - - 10? 11 12

Lat. 51°-56°. Throughout Ireland.

Type in Great Britain, British, inclining to Scottish.

Lakes, ditches, and bog-holes; frequent. *Fl.* July, August.

## ORDER LXXVI.—ARACEÆ.

*ARUM* Linn.1. *A. maculatum* (Linn.)—*Cuckoo-pint*, *Wake-robin*.

Districts 1 2 3 4 5 6 7 8 9 10 11 12

Lat. 51°-56°. Throughout Ireland.

Type in Great Britain, English.

Woods, hedges, and shady rocky places, also on sand-hills; not unfrequent. *Fl.* April, May.

Decreases towards the north and west.

## ORDER LXXVII.—LEMNACEÆ.

*LEMNA* Linn.1. *L. trisulca* (Linn.)—*Ivy-leaved Duckweed*.

Districts - 2 - 4 5 6 - - 9 - - 12

Lat. 52°-55°. Throughout nearly all Ireland, but local.

Type in Great Britain, English, inclining to British.

Ditches and pools; probably not unfrequent. *Fl.* June.

2. In a spring-well near Fermoy; *Drummond*. Corrin bog, and Ballyoran bog, near Fermoy; *Mr. T. Chandlee*. In Tipperary; *Miss S. Grubb*.—4. Bog near Enniscorthy, Wexford; *I. C.* Ditches on the Murrrough of Wicklow; *D. M.*—5. Ditches at Glasnevin; *D. M.* Baldoyle; *Ir. Flor.* Bog of Curraghera, Dublin. In drains by the Boyne, a little below Navan; *Mackay Cat. Ir.* Ardee bog, and bog at Mansfieldstown, Louth; *Ir. Flor.*—6. Plentiful near Limerick; *I. C.* Abundant in drains near Portumna; *D. M.* Tuam;

*Wade Gallovid.*—9. Ditch at Hazlewood, near Sligo; *Admiral Jones.*—12. Not unfrequent near Belfast; *Flor. Ulst.* and *Flor. Belf.* Drains at Myroe, Derry; *D. M.* In and about Lough Neagh; *D. M.*

Probably overlooked in many places.

2. *L. minor* (Linn.)—*Common Duckweed.*

Districts 1 2 3 4 5 6 7 8 9 10 11 12

Lat. 51°–56°. Throughout Ireland.

Type in Great Britain, British.

Ponds and ditches; common. *Fl.* June, July.

3. *L. polyrrhiza* (Linn.)—*Greater Duckweed.*

Districts - - - - 5 6 7 - - - - -

Lat. 53°–54°. Middle of Ireland.

Type in Great Britain, English, inclining to Germanic.

Ditches and pools; local and rare. *Fl.* June.

5. Brackish ditch near Irishtown, Dublin; *D. M.* Pond in the Phoenix Park; *A. G. M.*—6. Common about Limerick; *Flor. Hib.*—7. Belvedere Lake, West-Meath; *D. M.* Pools near Mullingar; *Mr. F. J. Foot.*

Flowers have not yet been found in the British Isles.

4. *L. gibba* (Linn.)—*Gibbous Duckweed.*

Districts - - - - 5 6 - - - - - 12

Lat. 53°–54°. East, West, and North-east of Ireland.

Type in Great Britain, English, inclining to Germanic.

Ditches and pools; local and rare. *Fl.* June, July.

5. Pond near Glasnevin; *D. M.* Ardee bog, Louth; *Ir. Flor.* Bog of Cool, below Ardee; *the late Mr. J. White.*—6. Near Limerick! *Prof. Harvey.*—12. Ditch near the Belfast Linen Hall; Lagan Canal; *Flor. Ulst.* Abundant by the Lagan, and near Lough Neagh; *D. M.*

Probably occurs in many other localities.

## ORDER LXXVIII.—POTAMOGETONACEÆ.

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

Districts 1 2 3 4 5 6 7 8 9 10 11 12  
 Lat. 51°–56°. Throughout Ireland.

Type in Great Britain, British.

Ponds, ditches, lakes, rivers, &c.; common. *Fl.* June, July.

2. *P. polygonifolius* (Pourr.)—*Oblong-leaved Pond-weed*.

*P. oblongus* (Viv.) Brit Flor., *P. natans* var. Bentham.

Districts 1 2 3 4 5 6 7 8 9 - 11 12  
 Lat. 51°–56°. Throughout Ireland.

Type in Great Britain, British,

Ditches, streams, and boggy places; common. *Fl.* June to August.

The commonest, probably, of all the pond weeds, and especially abundant on the large bogs, both in ditches and bog-holes, also on damp ground. Very variable, according to the kind of situation in which it grows.

3. *P. plantagineus* (Ducr.)—*Plantain-leaved Pond-weed*.

*P. natans* var. Bentham.

Districts 1 2 - 4 5 6 7 8 9 - - 12  
 Lat. 51°–56°. Throughout Ireland, probably.

Type in Great Britain, English, inclining to Germanic.

Ditches in peaty ground; rather rare. *Fl.* June, July.

1. Near Bantry; *C. C. B.* 1 and 2. Not unfrequent on bogs near Cork; *I. C.*—4. Ditches on the Murrough of Wicklow, and other places in Wicklow; *D. M.*—5. Plentiful in a ditch near the thirteenth lock south of the Grand Canal! Kildare; *Mr. J. Douglas*. Common in ditches on the bogs among the Dublin Mountains; *D. M.*—6. In ditches in the bog at Kilmacduagh, Galway; *A. G. M.* Near Portumna, Galway; *D. M.*—7. In the County West-Meath, near Mullingar, &c.; *D. M.*—8. Near Galway; *Prof. Melville*. Connemara; *D. M.* Roundstone; *Mr. T. Kirk*.—9. Bog

ditches near Hollymount, Mayo; *A. G. M.*—12. At Magiligan, Derry, and not unfrequent in bog ditches in Antrim; *D. M.*

4. *P. rufescens* (Schrad.)—*Reddish Pond-weed.*

*P. lucens* var. Bentham.

Districts 1 2 - 4 - 6 7 8 - 10 11 12

Lat. 51°-56°. From South to North of Ireland.

Type in Great Britain, British.

Ditches and streams; rather rare. *Fl.* July.

1 and 2. Rare near Cork, but found by Mr. Carroll in both divisions of the County.—2. Corrin bog, near Fermoy, rare; *Mr. T. Chandlee.*—4. Ditches on the Murrough of Wicklow; *D. M.*—6. Ditches near Limerick, but not common; *Flor. Hib.*—7. Belvedere Lake, West-Meath; *D. M.*—8. Near Galway; *Prof. Melville.*—10. Belturbet, Cavan; *D. M.*—11. On the race-course bog, near Londonderry; *D. M.*—12. Enagh Lough, and in the river Roe, Derry. Ballymena, Antrim; *D. M.* In the Lagan Canal; *Flor. Ulst.*

? 5. *P. lanceolatus* (Sm.)—*Lanceolate-leaved Pond-weed.*

*P. lucens* var. Bentham.

Districts 1 - - - - - 8 - - - 12

Lat. 51°-56°. From South to North of Ireland.

Type in Great Britain, uncertain.

Ditches and streams; rare. *Fl.* July, August.

1. Near Gap of Dunloe, Killarney (*D. M.*); *C. C. B.*—8. Ditch between the marble quarry and "the Recess," Connemara (*I. Carroll*); *C. C. B.*—12. In the Mayola river, near Shane's Castle, Antrim (*D. M.*); *C. C. B.*

We do not profess to be well acquainted with this plant, which may ultimately prove to be a form of some other species, altered by growing in running or deep water. The Irish specimens appear different from *P. lanceolatus* gathered in Anglesea.

["*P. sparganiifolius* (Laest.)" is another little understood plant which we think best to leave for future observation. It grows abundantly in the river near the hotel at Maam, Galway.]

6. *P. heterophyllus* (Schreb.)—*Various-leaved Pond-weed*.

Districts 1 2 3 4 5 - - 8 9 10 - 12

Lat. 51°–56°. From South to North of Ireland.

Type in Great Britain, British, inclining to English.

Ponds, ditches, and rivers; not unfrequent. *Fl.* June, July.

A singular plant, with long lanceolate submerged leaves, occurring in the river Boyne, below Navan, may belong to the present species; though Professor Babington refers it to *P. sparganiifolius* (Laest.)

7. *P. lucens* (Linn.)—*Shining Pond-weed*.

Districts 1 - 3 4 5 - - 8 9 10 11 12

Lat. 51°–56°. Throughout Ireland.

Type in Great Britain, English, inclining to British,

Lakes, rives, pools, &c.; frequent. *Fl.* June, July.

[*P. longifolius* (Gay). A single fragment picked up floating on Lough Corrib has been figured under this name in "*English Botany*," *Suppl. tab.* 2847, but we think that too little is known of the plant to entitle it to a place in the Irish Flora, until seen and studied in its actual place of growth.]

8. *P. prælongus* (Wulf.)—*Long-stalked Pond-weed*.

Districts 1 - - - - 6 - 8 9 - - 12

Lat 51°–55°. West and North of Ireland.

Type in Great Britain, Scottish.

Ditches and lakes; very local and rare. *Fl.* June, July.

1. Blackwater, Kerry (Dr. Taylor); *C. C. B.*—6. Near Limerick! *Prof. Harvey*.—8. In Lough Cullin, Mayo; *A. G. M.*—9. In two lakes east of Foxford; *A. G. M.*—12. Ditches by the Lagan, between the first and second locks; *Flor. Ulst.* Lough Mourne; *Flor. Belf.* In a small lake above Kilrea, Derry. In Lough Neagh; and Lough More, near Carrickfergus, Antrim; *D. M.*

9. *P. nitens* (Web.)—*Bright-leaved Pond-weed*.

Districts 1 - - - - - - - - - - 12

Lat. 51°–55°. South-west and North-east of Ireland.

Type in Great Britain, Scottish or British.

Lakes; very rare. *Fl.* June, July.



1. In a large lake between Castle Gregory and the sea, plentifully; *D. M.*—12. There is a specimen of this species among the plants collected by *D. M.* many years ago in Antrim. It was probably gathered in Lough Neagh. (Seemann's Journal of Botany, ii., p. 325.)

10. *P. perfoliatus* (Linn.)—*Perfoliate Pond-weed.*

Districts 1 2 — 4 5 6 — 8 9 10 11 12

Lat. 51°–56°. Throughout Ireland.

Type in Great Britain, British.

Ditches, rivers, lakes, &c.; frequent. *Fl.* July.

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

Districts 1 2 3 4 5 6 7 8 9 10 — 12

Lat. 51°–56°. Throughout Ireland.

Type in Great Britain, British, inclining to British.

Lakes, rivers, ditches, and canals; common. *Fl.* June, July.

12. *P. zosterifolius* (Schum.)—*Grass-wrack Pond-weed.*

*P. pusillus* var. Bentham.

District — — — — — — — — — — 12

Lat. 54°–55°. North-east of Ireland—Down only.

Type in Great Britain, English.

Pools and ditches; very rare. *Fl.* June, July.

12. In a pool to the right of the road from Newtonards to Bangor, Down! *Mr. D. Orr.* *Mr. S. A. Stewart* has kindly sent us a specimen of the supposed *P. zosterifolius* found at Saintfield, which proves to be *P. pusillus*.

13. *P. gramineus* (Linn.)—*Grassy Pond-weed.*

*P. obtusifolius* (Mert. et Koch). *P. pusillus* var. Bentham.

Districts 1 2 — — — — — — — 10 11 12

Lat. 51°–56°. South and North of Ireland.

Type in Great Britain, English, inclining to British.

Ponds, ditches, and bog-drains; local and rare. *Fl.* June, July.

1. Abundant on Ballyphehane bog, near Cork; *I. C.*—

2. On the east side of East grove, Great Island; in a

bog near Castle-Martyr; *Flor. Cork*. Bogs near Cork; *I. C.*—2. Corrin bog, near Fermoy; *Mr. T. Chandlee*. Near Youghal; *Flor. Hib.*—10. Ditches near a lake between Bel-turbet and Cavan; *D. M.*—Ditches communicating with Lough Neagh, near Lurgan; *D. M.*—11. Lakes in Fanet, Donegal; *Prof. E. Murphy*.—12. Ditches by the Lagan, near Belfast (*Mr. Millen*). Drains at Portmore, (*Mr. Templeton*) *Flor. Ulst.* Not unfrequent in and about Enagh Lough and Lough Beg, and near Moneymore, Derry. Several places in Antrim, especially abundant at Portmore; *D. M.*

Perhaps overlooked in the midland counties.

14. *P. pusillus* (Linn.)—*Small Pond-weed*.

Districts 1 2 3 4 5 - - 8 9 - - 12  
 Lat. 51°-56°. Throughout Ireland.

Type in Great Britain, British.

Pools and ditches; frequent. *Fl.* June, July.

*P. compressus* (Linn.), which is by many botanists considered a variety of *P. pusillus*, is described as growing on Corrin bog, near Fermoy; *Mr. T. Chandlee*. In muddy ditches along the Grand and Royal canals (near Dublin); *Ir. Flor.* In the river Bann and in a pond at Florence-côurt (*Flor. Hib.*), but we have no specimens from which to judge whether the plant has been properly named. *Mr. Carroll* finds *P. gramineus* only on Ballyphehane bog.

15. *P. pectinatus* (Linn.)—*Fennel-leaved Pond-weed*.

Districts 1 2 - 4 5 - 7 8 9 - 11 12  
 Lat. 51°-56°. Throughout Ireland.

Type in Great Britain, British.

Ditches, pools, streams, especially near the sea; frequent. *Fl.* June, July.

*Var. β flabellatus* (*P. flabellatus* Bab.)

Rare—2. Plentiful at Ballycotton, Cork; *I. C.* In the river Funcheon, near Fermoy; *Mr. T. Chandlee*. In the Suir near Clonmel; *D. M.*—5. In the canal near Straffan, Kildare; *Mr. J. Douglas*.

16. *P. filiformis* (Nolte.)—*Slender Pond-weed.**P. marinus* (Fries.) Gren. et Godr. *P. pectinatus* var. Bentham.

District - - - - - 8 - - - -

Lat. 53°–54°. West of Ireland—Mayo only.

Type in Great Britain [Scottish].

Lakes in mountainous districts; very rare. *Fl.* June, July.8. Abundant in shallow water in Lough Cullin, at the outlet of the river which falls into the Moy; *A. G. M.* Strictly speaking this locality extends to both districts 8 and 9.17. *P. densus* (Linn.)—*Opposite-leaved Pond-weed.*

Districts 1 2 3 4 5 6 - - - - -

Lat. 51°–54°. Southern half of Ireland.

Type in Great Britain, English.

Rivers, ditches, canals; very local and rare. *Fl.* June, July.

1. Killarney; *C. C. B.*—2. In the river Suir, near Clonmel; *D. M.* Pond at Tubberaheena, Tipperary; *Miss A. Taylor.*—3. In the county Kilkenny, near Waterford; *I. C.*—4. In the Slaney, near Enniscorthy; *Mr. J. Morrison.*—5. In the canal at Portobello, Dublin; *D. M.* (probably brought by the turf-boats).—6. About Limerick, not unfrequent (Prof. Harvey); *Flor. Hib.*; and probably elsewhere along the course of the Shannon.

*Obs.*—*P. acutifolius* is represented in Dr. Mackay's Herbarium by a specimen bearing lanceolate submerged leaves, probably belonging to *P. polygonifolius*.

*RUPPIA* Linn.1. *R. maritima* (Linn.)—*Tassel Pond-weed.*

Districts 1 2 - 4 5 6 - - - - 11 12

Lat. 51°–56°. Coasts of all Ireland.

Type in Great Britain.

Brackish pools and ditches; not unfrequent. *Fl.* July August.*Var. β rostellata* (*R. rostellata*, Koch.)

This is by far the more common form ; it is reported from Cork, Dublin, and Belfast. The only specimen which we have seen of the typical *R. maritima* is one preserved in the Herbarium of the late Dr. Mackay, and labelled "near Dublin, &c."

*ZANNICHELLIA* Linn.

1. *Z. palustris* (Linn.)—*Horned Pond-weed*.

Districts 1 2 - 4 5 - 7 8 9 10 - 12

Lat. 51°-56°. Throughout Ireland.

Type in Great Britain, British.

Rivers, ditches, and pools ; frequent. *Fl.* June to August.

Chiefly in brackish ditches near the coast, but occurs also in fresh-water not unfrequently.

*ZOSTERA* Linn.

1. *Z. marina* (Linn.)—*Common Grass-wrack*.

Districts 1 2 - 4 5 6 - 8 9 - 11 12

Lat. 51°-56°. Coasts of all Ireland.

Type in Great Britain, British.

Muddy estuaries and shallow sea-shores ; common. *Fl.* July, August.

Very variable in size and in the breadth of the leaves.

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

District - - - - 5 - - - - -

Lat. 53°-54°. East coast of Ireland.

Type in Great Britain, English.

Muddy estuaries ; very rare. *Fl.* July to September.

5. On mud in the creek close to the railway station at Baldoye, Dublin ; *A. G. M.* The transverse bands of the spadix were well seen in the few specimens gathered. It appears to flower very sparingly, and grows in company with *Z. marina*, *var. angustifolia*.

## ORDER LXXIX.—NAIADACEÆ.

## NAIAS Linn.

1. *N. flexilis* (Rostk.)—*Slender Naiad.**Caulinia flexilis* (Willd).

District - - - - - 8 - - - -

Lat. 53°-54°. West of Ireland—Galway only.

Hibernian type. Not found in Great Britain.

In shallow water in lakes; very rare. *Fl.* August.

8. In a lake near Roundstone, Connemara, between the Clifden coast road and the sea, at a mile or two from the village of Roundstone; *Prof. D. Oliver*. In a small lake less than a mile from Roundstone, on the way to Urrisbeg; *D. M.*

Discovered in Ireland by Professor Oliver in 1850.

## ORDER LXXX.—CYPERACEÆ.

## SCHÆNUS Linn.

1. *S. nigricans* (Linn.)—*Black Bog-rush.*

Districts 1 2 - 4 5 6 7 8 9 10 11 12

Lat. 51°-56°. Throughout Ireland.

Type in Great Britain, British.

Bogs, heaths, moors; frequent. *Fl.* June.

Abundant in many parts of the north and west of Ireland. Ranges from sea-level to 800 feet on Muckish, 1600 on Slieve Donard (*Flor. Ulst.*)

## CLADIUM P. Browne.

1. *C. Mariscus* (R. Br.)—*Prickly Twig-rush.*

Districts 1 2 - 4 5 6 - 8 9 10 11 12

Lat. 51°-55°. From South to North of Ireland nearly.

Type in Great Britain, English, inclining to British.

Margins of lakes and marshy places; rare in the east, frequent in the west of Ireland. *Fl.* July.

1. Frequent in Kerry and in West Cork; *I. C.* Bog at

Summerstown; *Drummond* and *I. C.*—2. Blarney Lake, but rare in the East Riding of Cork; *Flor. Cork.*—4. In Wicklow, on the Murrough; *D. M.*—5. Bog by the railway between Navan and Drogheda; *D. M.* Near the Curragh of Kildare; *Mr. F. J. Foot.* Dolardstown bog; *Mr. J. Douglas.*—10. Several of the lakes in Fermanagh and Cavan; *D. M.*, &c. Lough-gall Manor, Armagh; *A. G. M.*—11. Ditches at Dunfanaghy; and Lough Sheggach, Donegal; *Flor. Ulst.* Lake between Ballyshannon and Donegal; *Admiral Jones.*—12. At Selchin, by Lough Neagh; *D. M.* Lake by the road between Castlewellan and Rathfriland, Down; *Flor. Ulst.*

Frequent in districts 6, 8, 9.

### RHYNCHOSPORA Vahl.

#### 1. *R. alba* (Vahl.)—*White Beak-rush*.

Districts 1 2 - 4 5 6 7 8 9 10 11 12  
 Lat. 51°–56°. From South to North of Ireland.

Type in Great Britain, British.

Bogs; not unfrequent, especially in the west and north of Ireland. *Fl.* July.

#### 2. *R. fusca* (Sm.)—*Brown Beak-rush*.

Districts 1 - - - - 6 - 8 9 - - -  
 Lat. 51°–54. West of Ireland.

Type in Great Britain, Atlantic.

Spongy bogs; rare and local. *Fl.* July, August.

1. Bogs near the upper lake of Killarney; *Flor. Hib.* Near the base of Connor Hill, Dingle; *D. M.* Near Berehaven; by the side of Lough Allua (Lough Lua), Glengariff; *Flor. Cork.*—6. Dunbeg bog, in Clare; *D. M.*—8. Near Kilkerran bay, Roundstone, &c., in Connemara; *D. M.* Wet bog near the hill of Cahill, Connemara; *Flor. Hib.* Near Oughterard; *C. C. B.* Between Clifden and Roundstone; *the late Prof. Graham.* Bogs near Foxford, Mayo; *A. G. M.*—9. Ballinrobe, Hollymount, and Foxford, Mayo; *A. G. M.*

## ELEOCHARIS R. Br.

1. *E. palustris* (R. Br.)—*Creeping Spike-rush.**Scirpus palustris* (Linn.) Benth.

Districts 1 2 3 4 5 6 7 8 9 10 11 12

Lat. 51°–56°. Throughout Ireland.

Type in Great Britain, British.

Wet and marshy places; frequent. *Fl.* June, July.3. *E. uniglumis* (Link)—*Large-glumed Spike-rush.**Scirpus palustris* var. Benth.

District - - - 4 - - - - - - - -

Lat. 53°–54°. East coast of Ireland.

Type in Great Britain, Scottish.

Marshy margins of ditches near the sea; very rare. *Fl.* May.Plentiful in a marshy pasture-field, between Killoughter station and the lake, near the Murrough of Wicklow; *D. M.*

Probably occurs on many parts of the coast.

3. *E. multicaulis* (Sm.)—*Many-stalked Spike-rush.**Scirpus multicaulis* (Sm.), Benth.

Districts 1 2 3 4 - 6 - 8 9 - 11 12

Lat. 51°–56°. From South to North of Ireland.

Type in Great Britain, British.

Spongy bogs; frequent in the west, rare elsewhere. *Fl.* June to August.4. *E. acicularis* (Sm.)—*Least Spike-rush.**Scirpus acicularis* (Linn.), Benth.

Districts - - - - - 6 7 8? - 10 - 12

Lat. 51°–56°. West and North of Ireland.

Type in Great Britain, English, inclining to British.

Wet sands, and banks of lakes and rivers; rare. *Fl.* July, August.6. On the banks of Lough Derg, near Portumna; *D. M.*—7. Banks of the Shannon, near Portumna; *Flor. Hib.*—8? Near Ballinahinch, Connemara; *Wade Rar.* (probably *Scirpus Savii*).—10. Lough Erne; *Flor. Hib.* Banks of the Ulster Canal in Monaghan; *Miss Maffett.* Shores of Lough Neagh,

in Armagh; *A. G. M.*—12. Lough Foy, Derry; *Prof. E. Murphy*. Plentiful in many places along the Bann, in Derry; and by the Lagan and on the shores of Lough Neagh, Antrim; *D. M.* Portmore Lake; *Mr. S. A. Stewart*.

Chiefly in the neighbourhood of Lough Neagh, Lough Erne, the Shannon, and tributaries or canals connected with them. The localities given in the Flora of Cork are probably erroneous. *Scirpus acicularis* does not occur in Mr. Drummond's own list.

### SCIRPUS Linn.

#### 1. *S. maritimus* (Linn.)—*Salt-marsh Club-rush*.

Districts 1 2 3 4 5 6 - 8 9 - 11 12

Lat. 51°–56°. Coast of all Ireland.

Type in Great Britain, British, inclining to English.

Salt-marshes and brackish ditches; frequent. *Fl.* July, August.

#### 2. *S. sylvaticus* (Linn.)—*Wood Club-rush*.

Districts 1 2 - - - 6 - - - 10 11 12

Lat. 51°–56°. South and North of Ireland.

Type in Great Britain, British, inclining to English.

Wet meadows and marshy places; local. *Fl.* July, Aug.

1. By the Lee, above Cork (*Mr. Drummond*); *Flor. Cork*; where it grows in some quantity; *I. C.*—2. By the Blackwater, near Fermoy; *Mr. T. Chandlee*.—6. Plassy, near Limerick; *I. C.*—10. By Lough Erne, near Enniskillen; *Flor. Hib.* Near Loughgall, Armagh; *A. G. M.*—11. By the Fyn, in Donegal; *Admiral Jones*.—12. By the sides of most of the rivers in the south of Derry; by the river at Glenariff, and near Lough Neagh, &c., Antrim; *D. M.* Lagan side; Kilroot; Lough Neagh; banks of the Blackwater, and other places in Down, &c.; *Flor. Ulst.*

#### 3. *S. lacustris* (Linn.)—*Bull-rush*.

Districts 1 2 - 4 5 6 - 8 9 10 11 12

Lat. 51°–56°. Throughout Ireland.

Type in Great Britain, British.

Rivers, ponds, lakes; frequent. *Fl.* June, July.



4. ? **S. Tabernæmontani** (Gm.)—*Glaucous Bull-rush.*

*S. glaucus* (Smith). *S. lacustris*, var. Bentham.

Districts 1 2 - 4 5 6 - 8 - - 11 12

Lat. 51°-56°. Coasts of all Ireland.

Type in Great Britain, English, inclining to British.

Ditches and pools near the sea; frequent. *Fl.* June, July.

5. **S. cæspitosus** (Linn.)—*Scaly Spike-rush.*

*Eleocharis cæspitosa* (Link) Flor. Hib.

Districts 1 2 3 4 5 6 7 8 9 10 11 12

Lat. 51°-56°. Throughout Ireland.

Type in Great Britain, British, inclining to Scottish.

Heaths, moors, mountains; common. *Fl.* May, June.

Ranges from sea-level to 2500 feet on Slieve Donard (*Flor. Ulst.*), and 3000 feet on Carn-tual; *D. M.*

6. **S. pauciflorus** (Lightf.)—*Few-flowered Spike-rush.*

*Eleocharis pauciflora* (Link.) Flor. Hib.

Districts - - - - 5? 6 - 8 9 - 11 12

Lat. 51°-56°. From South to North of Ireland.

Type in Great Britain, British.

Margins of lakes and bogs; rather rare. *Fl.* May to Aug.

Frequent on the borders of lakes in the west and north of Ireland, rare on bogs and heaths. As with many other of the *Cyperaceæ* its distribution is very imperfectly known.

7. **S. fluitans** (Hook.)—*Floating Spike-rush.*

*Isolepis fluitans* (R. Br.), Brit. Flor.

Districts 1 2 - 4 5 - - 8 9 - 11 12

Lat. 51°-56°. Throughout Ireland?

Type in Great Britain, British.

Ditches and watery places; not unfrequent. *Fl.* June, July.

8. **S. setaceus** (Linn.)—*Bristle-leaved Spike-rush.*

*Isolepis setacea* (R. Br.), Brit. Flor.

Districts 1 2 - 4 5 - - 8 9 - 11 12

Lat. 51°-56°. From South to North of Ireland.

Type in Great Britain, British.

Moist, gravelly, and springy places; not unfrequent. *Fl.* July, to September.

9. *S. Savii* (S. et M.)—*Savi's Spike-rush*.*Isolepis Savii* (R. Br.), Brit. Flor.

Districts 1 - - 4 5 - - 8 9 - 11 12

Lat. 51°-56°. Coasts of nearly all Ireland.

Type in Great Britain, Atlantic.

Boggy and springy places; not unfrequent near the coast.

*Fl.* July to September.*BLYSMUS* Panz.1. *B. rufus* (Panz.)—*Narrow-leaved Blysmus*.

Districts - - - - 5 - - 8 - - 11 12

Lat. 53°-56°. Coasts of the Northern half of Ireland.

Type in Great Britain, Scottish.

Salt marshes; rather local. *Fl.* July.

5. Between Baldoyle and Howth, plentiful; *Mackay Cat. Ir.* Between Baldoyle and Portmarnock! *Ir. Flor.* Marsh between Balbriggan and Hampton; *Mackay Rar.*—8. Near Custrower Bay, Ballinahinch, Connemara; *Wade Rar.* Near Killala, Mayo; *D. M.*—11. Shores of Donegal Bay, at town of Donegal; *Flor. Ulst.* Shore at Glen Columbkil, and at Killybegs; *A. G. M.*—12. Plentiful at Brook Hall, by the side of the Foyle. Derry; Cushendall and Larne Lough, Antrim; *D. M.* Donaghadee; Sydenham; Bangor; Tillyburn; Newtonards; Holywood; *Flor. Ulst.*

[*B. compressus* (Panz.) Bogs near Glengariff (*Flor. Cork*) probably an error.]

*ERIOPHORUM* Linn.1. *E. vaginatum* (Linn.)—*Hare's-tail Cotton-grass*.

Districts 1 2 - 4 5 6 7 8 9 10 11 12

Lat. 51°-56°. Throughout Ireland.

Type in Great Britain, British, inclining to Scottish.

Bogs, moors, mountains; frequent. *Fl.* April, May.From sea-level to 2000 feet in Derry; (*D. M.*)2. *E. angustifolium* (Roth)—*Narrow-leaved Cotton-grass*.*E. polystachyum* (Linn.) Benth.

Districts 1 2 3 4 5 6 7 8 9 10 11 12

Lat. 51°-56°. Throughout Ireland.

Type in Great Britain, British.

Boggy and marshy places ; common. *Fl.* April, May.  
From sea-level to 2200 feet in Derry (*D. M.*)

3. *E. latifolium* (Hoppe)—*Downy-stalked Cotton-grass.*

*E. pubescens* Smith. *E. polystachyum* var. Bentham.

Districts - - - 4 - 6 - - - - 12

Lat. 53°-55°. Middle and North-east of Ireland.

Type in Great Britain British.

Bogs ; very rare. *Fl.* April, May.

5. Formerly in a marsh now drained near Enniskerry!  
“and other places in the County of Wicklow ;” *Flor. Hib.*—

6. At Woodlawn, near Kilconnel, Galway (Mr. E. Hill) ;  
*C. C. B.* (in *Mag. Zool. and Bot.* ii., 124.)—12. On a large  
flow bog near Rasharkin, Antrim (with *Saxifraga Hirculus*) ;  
*D. M.* Plentiful on a bog between Ballygowan Lough and  
Comber, Down ; *Mr. D. Orr.*

#### CAREX Linn.

1. *C. dioica* (Linn.)—*Diocious Sedge.*

Districts 1 - - 4 5 6 7 8 9 - 11 12

Lat. 51°-56°. From South to North of Ireland.

Type in Great Britain, Scottish, inclining to British.

Spongy bogs ; rather local. *Fl.* May, June.

Chiefly in the north and west of Ireland. Rare in the  
south, but occurs in West Cork, in the Dublin and Wicklow  
mountains ; at Ladiston, near Mullingar, and is not unfrequent  
in districts 6, 8, 9, 11, 12.

Ranges from sea-level to 1500 feet on Slieve Donard.

*Obs.*—*C. Davalliana* (Smith) is recorded as having been  
found by the late Mr. Templeton near Belfast, in the county  
of Down ; but we believe that *C. dioica* was mistaken  
for it.

2. *C. pulicaris* (Linn.)—*Flea Sedge.*

Districts 1 2 - 4 5 6 - 8 9 - 11 12

Lat. 51°-56°. Throughout Ireland.

Type in Great Britain, British.

Heathy and boggy places ; frequent. *Fl.* May, June.

From sea-level to 2000 feet on Lugnaquilla ; *D. M.*

3. *C. disticha* (Huds.)—*Soft Sedge*.*C. intermedia* (Good.), Brit. Flor. *C. arenaria* var. Bentham.

Districts 1 2 3 4 5 6 - 8 9 10 11 12

Lat. 51°–56°. Throughout Ireland.

Type in Great Britain, English, inclining to British.

Marshy meadows; not unfrequent. *Fl.* June.4. *C. arenaria* (Linn.)—*Sea Sedge*.

Districts 1 2 - 4 5 - - 8 9 - 11 12

Lat. 51°–56°. Coasts of all Ireland.

Type in Great Britain, British.

Sandy sea-shore; frequent. *Fl.* June.5. *C. divisa* (Huds.)—*Bracteated Marsh Sedge*.

District - - - - 5 - - - - - - - -

Lat. 53°–54°. East Coast of Ireland—Dublin only.

Type in Great Britain, English.

Marshy meadow near the sea; very rare. *Fl.* May, June.5. Along the side of a ditch in the marshes of the North Strand, Dublin; *D. M.* Still growing here; in some plenty in 1866. The stations of Aghris and Renvi, Connemara; Curragha bog, Dublin (*Wade Rar.*); and hedgebanks near Evergreen (*Flor. Cork*) are, we believe, erroneous.6. *C. vulpina* (Linn.)—*Great Sedge*.

Districts 1 2 3 4 5 - - - - 11 12

Lat. 51°–56°. From South to North of Ireland.

Type in Great Britain, British.

Wet ditch-banks and marshy places; not common. *Fl.* June.

Chiefly in the neighbourhood of the coast; and apparently more abundant in the east than in the west of Ireland.

7. *C. muricata* (Linn.)—*Prickly Sedge*.

Districts 1 2 - 4 5 - - 8 - - - -

Type in Great Britain, British, inclining to English.

Hedge-banks and gravelly pastures; rare. *Fl.* June.1 and 2. Rather rare near Cork; *Flor. Cork*. But occurs

in both divisions of the county, preferring a limestone soil ;  
*I. C.*—2. Carrick-a-brick, near Fermoy ; *Mr. T. Chandlee*.  
 Ditchbanks near Cahir, Tipperary ; *Mackay Cat. Ir.*—4. By  
 the Slaney ; and on a bog near Enniscorthy, Wexford ; *I. C.*—  
 5. Near Step-aside, on the way to Holly Park, Dublin ;  
*D. M.* Bog of Curragha ; *Wade Dubl.* Howth ; *Ir. Flor.*—  
 8. Oughterard ; *C. C. B.*

8. *C. divulsa* (Good.)—*Grey Sedge.*

*C. muricata* var. Bentham.

Districts 1 2 - 4 5 - - - - -

Lat. 51°–54°. South and East of Ireland.

Type in Great Britain, English, inclining to Germanic.

Hedgebanks ; very local and rare. *Fl.* June, July.

1 and 2. Rather rare near Cork ; *Flor. Cork.* Innishannon,  
 and near Cork, in both divisions of county ; *I. C.*—2. In  
 woods and shady places near Fermoy ; *Mr. T. Chandlee.*—4.  
 Banks near the Glen of Downs, Wicklow ; *D. M.*—5. Grassy  
 hedges near Killiney bay ; *Flor. Hib.* Road-side banks near  
 Stillorgan, Dublin ; *D. M.* Hedges near Athy, Kildare ;  
*I. C.* Lodge Park, Kildare ! *Mr. J. Douglas.*

9. *C. teretiuscula* (Good.)—*Lesser Panicked Sedge.*

*C. paniculata* var. Bentham.

Districts 1 - - - - 6 7 - 9 - - 12

Lat. 51°?–56°. From South to North of Ireland.

Type in Great Britain, British, inclining to English.

Boggy places ; local and rather rare. *Fl.* June.

Chiefly in the west and north.—1. Ballyphehane bog, near  
 Cork ; *Drummond.* Not seen in the county by Mr. Carroll.—  
 6. Dunbeg bog, near Kilrush, Clare. Bog near Woodford,  
 Galway ; *D. M.*—7. Near Belvedere Lake, Mullingar ; *D. M.*  
 —9. Marshy meadow opposite the gate at Hollymount House,  
 Mayo, *A. G. M.*—12. Marble Hall, Carnmoney ; *Purdys-*  
*burn ;* various places in county Down ; *Flor. Ulst.* On the  
 borders of a small marshy lake at Killymurray's, Antrim ;  
*D. M.* Bog at the Giant's Causeway ; *Mr. D. Orr.*

Chiefly in the west and north of Ireland, but probably  
 overlooked in many places.

10. *C. paradoxa* (Willd.)—*Paradoxical Sedge*.*C. paniculata* var. Bentham.

District - - - - - 7 - - - - -

Lat. 51°–56°. Centre of Ireland—West Meath only.

Type in Great Britain, Intermediate.

Boggy places; very rare. *Fl.* June.7. Plentiful in the boggy wood at Ladiston, on the shore of Belvedere Lake, near Mullingar; *D. M.*11. *C. paniculata* (Linn.)—*Panicled Sedge*.

Districts 1 2 - 4 5 6 7 8 - - 11 12

Lat. 51°–56°. Throughout Ireland?

Type in Great Britain, British.

Boggy and swampy places; not unfrequent, but rather local. *Fl.* May, June.12. *C. axillaris* (Good.)—*Axillary Sedge*.

Districts 1 2? - 4 - - - - -

Lat. 51° or 53°–54°. South and East of Ireland.

Type in Great Britain, English, inclining to Germanic.

Marshy places; very rare. *Fl.* June.1. Near the upper lake at Killarney; *Herb. Mackay*. Ballyphehane bog, near Cork; *Drummond* (not found recently).—4. Wet bank at Luggelaw, Wicklow; (Dr. M'Creight) *Flor. Hib.*Mr. Tate informs us that the plant recorded as "*C. axillaris*" in his *Flora Belfastiensis*, is a stout form of *C. remota*.13. *C. remota* (Linn.)—*Distant-spiked Sedge*.

Districts 1 2 - 4 5 - - 8 9 10 11 12

Lat. 51°–56°. Throughout Ireland.

Type in Great Britain, British, inclining to English.

Damp shady places, and ditch banks; not unfrequent. *Fl.* June.

Not an abundant species, but widely distributed in Ireland.

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

Districts 1 2 3 4 5 6 7 8 9 10 11 12

Lat. 51°–56°. Throughout Ireland.

Type in Great Britain, British.

Bogs, moors, heaths, &c.; common. *Fl.* May, June.

Ranges from sea-level to 2000 feet in Derry.

15. *C. elongata* (Linn.)—*Elongated Sedge.*

District - - - - - - - - - - 12

Lat. 53°–56°. North-east of Ireland—Antrim only.

Type in Great Britain, English, inclining to Intermediate.

Marshy ground; very rare. *Fl.* June.

12. In a wet boggy wood at Selchin, on the shore of Lough Neagh, near Derrymore House, in the parish of Aghagallan, Antrim, 1838; *D. M.* The supposed "*C. elongata*" of Flora Belfastiensis is a slender form of *C. paniculata*.

16. *C. curta* (Good.)—*White Sedge.**C. canescens* (Linn.) Bentham.

Districts 1 2 3 4 5 - - 8 - 10 11 12

Lat. 51°–56°. From South to North of Ireland.

Type in Great Britain, British.

Bogs and watery places; rare. *Fl.* June.

1. Marshes at the foot of Mangerton mountain, sparingly; *Wade Rar.*—2. Ditch-banks near Cahir, Tipperary; *Mackay Rar.*—3. Meadow between Cullenagh and Stradbally, Queens-county; *Mackay Rar.*—4. Near Lough Dan and Roundwood, Wicklow; *D. M.*—5. Foot of the Three Rock mountain, above Marley; *Ir. Flor.* Curragha Bog! Dublin; *Wade Rar.*—8. Lettery mountain, Connemara; *Wade Rar.*—10. Ditch near Tartaraghan! Armagh; *Rev. G. Robinson.* In the county Fermanagh; *Mackay Rar.*—11. In a wet bog near Killybegs, Donegal; *A. G. M.*—12. Rare in Derry, only found at the foot of Slieve Gullion on the north side. Plentiful in marshy meadows and bog holes near Ballinderry and Ballymena; also near a lake between Fair Head and Murlough bay, Antrim; *D. M.* Moneymore; Carnmoney; King's Moss; Birkey Moss, south of Castlereagh Hills; Bogs near Toome; *Flor. Ulst.*

*C. vitilis*, Fries, (*C. curta* var. *alpicola* Wahl.) may possibly be found in some of the mountainous localities above given for *C. curta*.

17. *C. ovalis* (Good.)—*Oval-spiked Sedge*.

*C. leporina* (Wahl.) Bentham.

Districts 1 2 3 4 5 - - 8 9 10 11 12

Lat. 51°-56°. Throughout Ireland.

Type in Great Britain, British.

Marshy and boggy places, wet meadows, &c.; frequent. *Fl.* June.

18. *C. stricta* (Good.)—*Greater Tufted Sedge*.

*C. cæspitosa* var. Bentham. *C. cæspitosa* (Linn.), Brit. Flor.

Districts 1 2 - 4 5 6 7 0 9 10 11 12

Lat. 51°-56°. Throughout Ireland.

Type in Great Britain, English, inclining to Intermediate.

Marshes and margins of lakes and ditches; frequent. *Fl.* May, June.

19. *C. acuta* (Linn.)—*Slender-spiked Sedge*.

Districts 1 - - - 5 6 - - - - 11 12

Lat. 51°-56°. From South to North of Ireland.

Type in Great Britain, British, inclining to English.

Sides of rivers and lakes, and watery places; local. *Fl.* May, June.

1. Killarney; *C. C. B.*—5. Banks of the canal at Rathangan, Kildare; by the Boyne, near Drogheda; *D. M.*—6. Banks of the Shannon, and on the shores of Lough Derg, Galway; *D. M.*—11. River side at Glen Columbkil; *Flor. Ulst.* Banks of the Finn; *Admiral Jones*.—12. Marshy meadows near Toom-bridge, Derry; *D. M.* By the river near Randals-town; banks of the river Main, near Ballanbruid; shores of Lough Neagh; Antrim; *D. M.* Loonburn, near Doagh; Lagan side; Moneymore, &c.; *Flor. Ulst.*

20. *C. rigida* (Good.)—*Stiff Mountain Sedge*.

*C. cæspitosa* var. Bentham.

Districts 1 2 - - - - 8 - - 11 -

Lat. 51°-56°. West and North of Ireland.

Type in Great Britain, Highland.



Wet and stony places on mountains; rare. *Fl.* June, July.

1. On the top of Brandon mountain, Kerry; *D. M.* On Curran Tuhol (Carntual), and other mountains in Kerry; *Flor. Hib.*—2. On Galtymore, Tipperary; *Flor. Hib.*—8. On Nephin, Mayo (from 1850 feet to the summit); *Flor. Ulst.*—11. On Muckish (from 1900 feet to the top). On Errigal (from 1850 feet); *Flor. Ulst.* Bulbein mountain, Innishowen, Donegal (Mr. Brown); *Wade Rar.*

In the "Flora of Ulster" Dr. Dickie mentions a plant, apparently belonging to this species, found near sea-level at Innishowen Head, and at Downpatrick Head.

Ranges from 1850 feet (or lower) to 3000 feet.

21. *C. vulgaris* (Fries)—*Lesser Tufted Sedge.*

*C. caespitosa* (Linn.) Bentham, *Flor. Hib.*

Districts 1 2 3 4 5 6 7 8 9 10 11 12

*Lat.* 51°–56°. Throughout Ireland.

Type in Great Britain, British.

Marshy and boggy places; common. *Fl.* May, June.

22. *C. Buxbaumii* (Wahl.)—*Hoary Sedge.*

*C. canescens* (Linn.) Brit. *Flor.* *C. polygama* (Schk.)

District — — — — — — — — — — 12

*Lat.* 54°–55°. North-east of Ireland.

Hibernian Type. Not found in Great Britain.

Damp stony margins of lakes; very rare. *Fl.* June.

12. On a small island, called "Harbour Island," in Lough Neagh, near Toom-bridge, Derry, 1835; *D. M.* Gathered there by the late Mr. Joseph Woods in 1855.

Discovered in Ireland by *D. M.* in 1835.

23. *C. pallescens* (Lam.)—*Pale Sedge.*

Districts 1 — 3? 4 5? — — — 9 10 11 12

*Lat.* 51°–56°. From South to North of Ireland.

Type in Great Britain, British.

Marshy or heathy places, chiefly in mountainous districts; local. *Fl.* June.

1. Ballinhassig glen; and pass of Keim-an-Eigh, Cork;

*I. C.*—3? Between Cullenagh and Stradbally, Queen's county; *Flor. Hib.* (A specimen preserved at Cork, and labelled "Queen's-county, Mr. Mackay" is *C. præcox*.—4. Near the Seven Churches at Glendalough; *D. M.*—5? Curragha Bog, Dublin; *Wade Rar.* Moist meadows at Howth; *Ir. Flor.*—9. Near Foxford, Mayo; *A. G. M.*—10. Bessmount! Monaghan; *Miss Maffett.* Islet in Lough Neagh, near Maghery, Armagh; *Flor. Ulst.*—11. On a hill near Killybegs, Donegal; *A. G. M.*—12. Woodburn glen and shores of Lough Neagh at Toome; bog at second lock of the Lagan; *Flor. Ulst.* Ballyalloy lake; People's Park; Stranmillis; *Flor. Belf.* Crumlin; *Mr. S. A. Stewart.* At Magilligan, and in meadows by the Bann, Derry; Islands in Lough Neagh, Antrim; *D. M.*

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

Districts 1 2 3 4 5 6 7 8 9 10 11 12

Lat. 51°–56°. Throughout Ireland.

Type in Great Britain, British.

Bogs and marshy places; common. *Fl.* June.

From sea-level to 1,500 feet on Slieve Donard.

25. *C. limosa* (Linn.)—*Drooping bog Sedge.*

Districts 1 - - - 5? 6 7 8 9 - 11 12

Lat. 51°–56°. From South to North of Ireland.

Type in Great Britain, Scottish.

Spongy bogs; local and rather rare. *Fl.* June.

1. At the base of Connor Hill, Dingle; *D. M.*—5. Curragha bog, Dublin; *Wade Rar.*—6. Monmor bog, Clare; and bog near Woodford, Galway; *D. M.*—7. Near Belvedere lake, West-meath; *D. M.*—8. On the west side of Lough Corrib; *the late Prof. Graham.* Near Bangor in Erris, Mayo; *D. M.*—9. Bog near Hollymount, Mayo; *A. G. M.*—11. Near Killybegs, Donegal; *A. G. M.* Gap of Urris; *Mr. C. Moore.* Marshes near Lough Erahesk, Glen Columbkil; *Flor. Ulst.*—12. Ballygowan bog; near Donaghadee; bog near Saintfield; *Flor. Hib.* Portmore; *Mr. S. A. Stewart.* Between Fair Head and Murlough bay; and on the large flow bog at Rasharkin, Antrim; *D. M.* Chiefly in the west and north of Ireland.

Dr. Dickie has kindly sent us some specimens of the supposed *Carex irrigua* from Glen Columbkil, which we are compelled to refer to *C. limosa*.

26. *C. strigosa* (Huds.)—*Loose-flowered Sedge*.

Districts - 2? 3 4 5 - - - - 11 12

Lat. 51°-54°. South? East, and North of Ireland.

Type in Great Britain, English.

Moist woods and hedges; rare and very local. *Fl.* May, June.

2? In Dunscombe's wood, near Cork; *Drummond*. Mr. Carroll has not succeeded in finding *C. strigosa*, and fears that *C. sylvatica* was mistaken for it.—3. Dunmore woods, Queen's-county; *Mackay Rar.*—4. Plentiful at the Dargle; *Wade Rar.* and *Flor. Hib.*—5. Luttrell's-town wood (Woodlands!); *Wade Rar.* At Marino, near Dublin; *Mackay Rar.* Curragha; *Wade Rar.*—11. Near the town of Donegal, between it and Mount Charles; *Prof. Dickie.*—12. Several places near Belfast. By the Forth river, near the bridge on the Fall's road; Blackstaff-lane; Colin Glen! on the Knockagh; Woodburn Glen; Crawfordsburn; near Shane's Castle; at Glenarm; *Flor. Ulst.*

As with many other of the scarcer species, the distribution of this *Carex* inclines to the east and south of Ireland, with the exception of a single locality.

27. *C. pendula* (Huds.)—*Great pendulous Sedge*.

Districts - 2 - 4 5 - - - - 10 - 12

Lat. 51°-54°. South, East, and North of Ireland.

Type in Great Britain, British, inclining to English.

Moist woods and ditch-banks; local, and rather rare. *Fl.* June.

2. Dunscombe's Wood, near Cork; *Drummond* and *I. C.* Glenbower Wood; Killeagh; *Flor. Cork.* Castle Hyde, near Fermoy; *Mr. T. Chandlee.*—4. Solsborough, Wexford; *Mr. J. Morrison.*—Powerscourt Woods! and other places in Wicklow; *Flor. Hib.*—5. Foot of the Dublin Mountains; banks of the canal from Portobello to Dolphin's-barn; Santry

Wood; between Glasnevin and Drumcondra; *Ir. Flor.* Near Sandymount; *Mackay Rar.* Woods by the Liffey, near Lucan; *A. G. M.*—10. Near Swanlinbar, Cavan; *Mackay Rar.*—12. Ballinahinch Park, county Down; *Mr. S. A. Stewart.* Near Glenarm; and Colin Glen; Antrim; *D. M.*

Like the former, this belongs to the south and east of Ireland, with the exception of one outlying station.

28. *C. præcox* (Jacq.)—*Spring Sedge.*

Districts 1 2 3 4 5 6 7 8 9 10 11 12

Lat. 51°–56°. Throughout Ireland.

Type in Great Britain, British.

Heaths and dry pastures; frequent. *Fl.* April, May.

From sea-level to 1200 feet in Derry (*D. M.*).

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

Districts 1 2 3 4 5 - - 8 9 10 11 12

Lat. 51°–56°. Throughout Ireland.

Type in Great Britain, British, inclining to English.

Heaths, moors, and mountains; frequent. *Fl.* May.

From about sea-level to 2400 feet on Errigal (*Flor. Ulst.*).

30. *C. glauca* (Scop.)—*Glaucous Heath Sedge.*

Districts 1 2 3 4 5 6 7 8 9 10 11 12

Lat. 51°–56°. Throughout Ireland.

Type in Great Britain, British.

Pastures and heaths; common. *Fl.* April to June.

Reaches 1300 feet or more in Derry; 1500 feet on Slieve Donard.

31. *C. flava* (Linn.)—*Yellow Sedge.*

Districts 1 2 3 4 5 6 7 8 9 10 11 12

Lat. 51°–56°. Throughout Ireland.

Type in Great Britain, British.

Boggy and marshy places; common. *Fl.* May, June.

*Var. β lepidocarpa* (*C. lepidocarpa*, Tausch).

Not unfrequent in boggy places.

*Var. γ Ederi* (*C. Ederi*, Ehrh.)

Frequent on bogs and moist heaths.

Ranges from sea-level to 1600 feet or more.

32. *C. extensa* (Good.)—*Bracteated Sea-Sedge.*

Districts 1 2 - 4 5 - - 8 - - 11 12

Lat. 51°-56°. Coasts of all Ireland.

Type in Great Britain, British.

Salt-marshes; rather local. *Fl.* June.

1. Dingle, Kerry; *D. M.* Ballylickey, near Bantry; *Flor. Hib.*—2. Marshes in Little Island; *Flor. Cork.* On the coast of Cork and Waterford; *I. C.*—4. Murrough of Wicklow; *D. M.*—5. Portmarnock; *Flor. Hib.* At the mouth of the Boyne, near Drogheda; *D. M.*—8. Near Cahil, Connemara; *Mackay Rar.* Common in Connemara; *C. C. B.* Killala, Mayo; *D. M.*—11. Dunfanaghy; and near Horn Head, Donegal; *Mr. C. Moore.* Shores of Donegal Bay; *Flor. Ulst.*—12. Side of the Foyle, at Culmore; and mouth of the Roe, Derry; Cushendall, Larne Lough, and Belfast Lough, Antrim; *D. M.* Donaghadee; between Crawfordsburn and Bangor; Copeland Islands; *Flor. Ulst.*

33. *C. fulva* (Good.)—*Tawny Sedge.*

*C. distans* var. Bentham. *C. Hornschuchiana* (Hoppe).

Districts 1 - - 4 5 6 7 8 9 - 11 12

Lat. 51°-56°. From South to North of Ireland.

Type in Great Britain, British.

Boggy and heathy ground; frequent in mountainous districts. *Fl.* May, June.

Abundant in many parts of the west and north of Ireland, rare on the east side. It chiefly occurs under the form *C. Hornschuchiana*. The typical *C. fulva* (Good.), which is now considered a barren form, or a hybrid between *C. Hornschuchiana* and *C. flava*, is much less frequent.

Reaches to 1000 feet in Derry; 800 on Nephin (*Flor. Ulst.*)

34. *C. punctata* (Gaud.)—*Dotted Sedge.*

District 1 - - - - - - - - - - - - - - - - -

Lat. 52°-53°. South-west of Ireland—Kerry and Cork.

Type in Great Britain, "Local" [Atlantic].

On the sea coast; very rare. *Fl.* June.

1. Near Dingle, Kerry, near a tower at the mouth of the

harbour; *Prof. D. Oliver* (1853). At Sneem, Kerry; and at Berehaven, Cork; *the late Mr. J. Woods*. Shore at Glengariff, sparingly; in greater quantity, but dwarfed, near Dunboy, Berehaven, Cork; *I. C.*

35. *C. distans* (Linn.)—*Loose Sedge*.

Districts 1 2 - 4 5 - - 8 - - 11 12

Lat. 51°–56°. Coasts of all Ireland.

Type in Great Britain, British.

Salt marshes; frequent. *Fl.* May, June.

36. *C. binervis* (Sm.)—*Green-ribbed Sedge*.

*C. distans* var. Bentham.

Districts 1 2 - 4 5 6 7 8 9 10 11 12

Lat. 51°–56°. Throughout Ireland.

Type in Great Britain, British.

Heaths, moors, mountains; frequent. *Fl.* May, June.

Ranges from sea-level to 2000 feet in Derry and Donegal.

37. *C. lævigata* (Sm.)—*Smooth Sedge*.

*C. distans* var. Bentham.

Districts 1 2 - 4 5 - - 8 9 - 11 12

Lat. 51°–56°. From South to North of Ireland.

Type in Great Britain, British.

Boggy woods and shady hedge banks; rather rare. *Fl.* June.

1. Ballylickey, near Bantry; *Flor. Hib.*—1 and 2. Common in Cork; *I. C.* Near Gurteen, Waterford; (*Miss Grubb*); *I. C.*—4. Enniskerry; *Mr. J. Ball.*—5. Kelly's glen, Dublin; *D. M.*—8. In a marshy part of Drumman wood, Lough Cullin, Mayo; *A. G. M.*—9. Near Foxford, Mayo; *A. G. M.*—11. In a wet hedge near Killybegs, Donegal; *A. G. M.*—12. Bawn's glen, Derry; and in a boggy wood near Ballycastle, Antrim; *D. M.* Belvoir Park; Banks of Lagan; Colin glen; Woodburn glen; *Flor. Ulst.* Hillsborough Park, Down; *Mr. S. A. Stewart*

38. *C. sylvatica* (Huds.)—*Wood Sedge*.

Districts 1 2 3 4 5 6 7 8 9 10 11 12

Lat. 51°–56°. Throughout Ireland.

Type in Great Britain, British, inclining to English.

Woods and hedges; frequent. *Fl.* May, June.

39. *C. Pseudo-cyperus* (Linn.)—*Cyperus-like Sedge*.

Districts 1 2 3 4 5 6 - - - 10 - 12  
 Lat. 51°-55°. From South to North of Ireland.

Type in Great Britain, English.

Marshy and watery places; local and rare. *Fl.* June.

1 and 2. Marshy pond near the Lee; *Drummond*. Between Ballyphehane bog and Douglas; in Inchacummawn bog, Blarney; *Flor. Cork*. Ballycotton; *I. C.*—3. Marsh in Dunmore Woods, Queen's-county; *Flor. Hib.*—4. At the old Dargle, Wicklow; *Wade Rar.*—5. Bracken'stown wood; and at Curragha, Dublin; *Wade Rar.*—6. At Plassy, near Limerick; *I. C.*—7. At Shannon Harbour, near Portumna; *D. M.*—10. Abundant in bogs near Belturbet, Cavan; *D. M.*—12. Drains at Cranmore; and in the bog meadows Belfast; *Flor. Ulst.*

40. *C. filiformis* (Linn.)—*Slender-leaved Sedge*.

Districts 1 - - - 5 6 7 8 9 - 11 12  
 Lat 51°-55°. From South to North of Ireland.

Type in Great Britain, Scottish, inclining to British.

Ditches in peat bogs; rare. *Fl.* May, June.

1. Lough Carra, Kerry (Mr. Drummond); *Flor. Hib.* Ballyphehane bog, Cork; *Drummond*.—5. Bog between Navan and Drogheda, in Meath; *D. M.*—6. Monmor bog, Clare; and bog ditches near Portumna, and near Lough Derg; *D. M.*—7. Bog at Ladiston, Mullingar; *D. M.*—8. On the west side of Lough Corrib; *the late Prof. Graham*.—9. Near Hollymount, Mayo; *A. G. M.*—11. Bog near Killybegs, Donegal; *A. G. M.*—12. By the side of Lough Neagh, at Selchin; *D. M.*

41. *C. hirta* (Linn.)—*Hairy Sedge*.

Districts 1 2 - 4 5 6 7 8 9 10 11 12  
 Lat. 51°-56°. Throughout Ireland.

Type in Great Britain, British, inclining to English.

Wet pastures and marshy places; not unfrequent. *Fl.* May.

Not an abundant species, but appears widely distributed.

42. *C. ampullacea* (Good.)—*Bottle Sedge*.

Districts 1 2 3 4 5 6 7 8 9 10 11 12

Lat. 51°–56°. Throughout Ireland.

Type in Great Britain, British.

Ditches in bogs and marshes; frequent. *Fl.* June.

One of the most abundant of the *Carices* throughout Ireland.

43. *C. vesicaria* (Linn.)—*Bladder Sedge*.

Districts 1 2 3 4 5? - - 8 9 10 11 12

Lat. 51°–56°. From North to South of Ireland.

Type in Great Britain, British, inclining to English.

Boggy and watery places, sides of rivers and lakes; rather local. *Fl.* May, June.

1. Killarney Lakes; *D. M.*—1 and 2. Summerstown and other bogs in Cork; *Flor. Cork*. Ballyphehane bog; *Mackay Rar.* and *Drummond*. Only once found near Cork by Mr. Carroll.—3. Near Cullenagh, Queen's-county; *Mackay Rar.* By the Barrow, near Portarlinton and Monasterevan; *D. M.*—5? Bog of Curragha; *Wade Rar.*—6. On the shore of Lough Derg, near Portumna; *D. M.*—8. On the banks of the Moy, &c., near Foxford, Mayo; *A. G. M.*—9. By the river below Hollymount, Mayo; *A. G. M.*—10. Abundant on the shores of Lough Erne, near Castle Saunderson and Quivey, Cavan; *D. M.* In the lake at Castle Dillon; at Loughgall; and on the shores of Lough Neagh, Armagh; *A. G. M.* In Glasslough Lake! Monaghan; *Miss Maffett*.—12. Frequent in Derry; and at Glensheisk, Antrim; *D. M.* Bogs near Lisburn; Ballinahinch river; *Flor. Ulst.* Belfast hills? Malone; Knock; Ballyalloy lake; *Flor. Belf.* Near Moira, Down; *Mr. D. Orr*.

44. *C. paludosa* (Good.)—*Lesser Bank Sedge*.

Districts - - 3 - 5 - - - - 10 - 12

Lat. 52°–56°. East and North-east of Ireland.

Type in Great Britain, British.

Banks of rivers and lakes, ditches, &c.; rare and local. *Fl.* May.



3. Marshes at Dunmore Woods, Queen's-county; *Mackay Rar.*—5. Banks of the Grand Canal in Dublin and Kildare, plentiful; *D. M.*—10. In the county Fermanagh; *Mackay Rar.* Side of the lake at Loughgall Manor, Armagh; *A. G. M.*—12. By the Bann, below Coleraine, and near Moneymore, Derry; *D. M.* Ballynochan Lough; and Lough two miles south-east of Kilmore, Down; *Flor. Ulst.*

45. *C. riparia* (Curt.)—*Greater Bank Sedge.*

Districts 1 2 - 4 - 6 - - - - 12  
 Lat. 51°-56°. From South to North of Ireland.

Type in Great Britain, British, inclining to English.

Banks of ditches, rivers, lakes; local and rather rare.  
*Fl. May.*

1 and 2. Ballyphehane bog; near the Mardyke; Shanagarry bog, Ballycotton, and near Cork, in both divisions of the county; *Flor. Cork* and *I. C.*—4. Ditches on the Murrough of Wicklow; *D. M.*—5. Ditches near the shore at Donabate, Dublin; *D. M.* Willow-brook, near Ballitore, Kildare; *I. C.*—6. Headford! Galway; *Mr. R. J. Shuttleworth.*—10. Banks of the river Finn, in Tyrone; *Admiral Jones.*—12. Shores of Lough Neagh, and Portmore Lough, Antrim; *D. M.* Banks of the Six-mile river, near Temple-patrick; *Mr. S. A. Stewart.* Ditch at White-house; banks of the Lagan; shores of Lough Neagh, near Shane's Castle; Island of Rathlin; *Flor. Ulst.*

The distribution of the two last species appears different, but *C. riparia* and *C. paludosa* often grow together, and are not always distinguished.

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ORDER LXXXI.—GRAMINEÆ.

*PHALARIS* Linn.

1. *P. arundinacea* (Linn.)—*Reed Grass.*

*Digraphis arundinacea* (Trin.), Bentham.

Districts 1 2 - 4 5 6 - 8 9 10 11 12  
 Lat. 51°-56°. Throughout Ireland.

Type in Great Britain, British.

Ditches, and sides of lakes and rivers; frequent. *Fl.* June, July.

[*P. canariensis* (Linn.), *Cultivated Canary-grass*, is found occasionally in the neighbourhood of houses and gardens, where the seeds have been accidentally scattered, but is not naturalized in Ireland.]

### ANTHOXANTHUM Linn.

#### 1. *A. odoratum* (Linn.)—*Scented Vernal-Grass*.

Districts 1 2 3 4 5 6 7 8 9 10 11 12

Lat. 51°–56°. Throughout Ireland.

Type in Great Britain, British.

Pastures, heaths, woods; common. *Fl.* May, June.

Reaches 1900 feet on Slieve Donard (*Flor. Ulst.*)

### PHLEUM Linn.

#### 1. *P. arenarium* (Linn.)—*Sea Cat's-tail Grass*.

Districts 1 2 - 4 5 - - - - - 11 12

Lat. 51°–56°. Coasts from South to North of Ireland.

Type in Great Britain, English, inclining to British.

Sandy sea-shores; local and rather rare. *Fl.* May, June.

1. Castle Gregory, Kerry; *D. M.* Coast of south Cork; *Mr. J. Sullivan*.—2. Ballycotton, and Clay Castle, Youghal; *Flor. Cork*. Coast of Waterford; *I. C.*—4. Murrough of Wicklow; *D. M.*—5. Sandymount; *White*. Howth; Baldoyle! Portmarnock! *Ir. Flor.*—11. Abundant on sand-hills at Dunfanaghy; *Flor. Ulst.* Innishowen; *Mr. C. Moore*.—12. Abundant along the coast of Derry, from Lough Foyle to Portstewart; *D. M.* Newcastle, Down; *Flor. Ulst.* Dundrum Bay; *Mr. S. A. Stewart*.

#### 2. *P. pratense* (Linn.)—*Common Cat's-tail* or *Timothy*.

Districts 1 2 - 4 5 6 - 8 9 - 11 12

Lat. 51°–56°. From South to North of Ireland.

Type in Great Britain, British, inclining to English.

Meadows and pastures; not common. *Fl.* June, July.

Widely distributed, but not an abundant species in Ireland.

*Obs.*—*P. alpinum* (Linn.) is recorded by Wade as found near the top of Lettery mountain, Connemara, but this is believed to have been a mistake.

### ALOPECURUS Linn.

#### 1. *A. pratensis* (Linn.)—*Meadow Fox-tail*.

Districts 1 2 - 4 5 - - 8 9 - 11 12  
 Lat. 51°–56°. Throughout nearly all Ireland.

Type in Great Britain, British.

Moist meadows; not unfrequent. *Fl.* May, June.

Rather local; rare about Cork, local in Derry.

#### 2. *A. geniculatus* (Linn.)—*Floating Fox-tail*.

Districts 1 2 - 4 5 6 - 8 9 10 11 12  
 Lat. 51°–56°. Throughout Ireland.

Type in Great Britain, British.

Ditches and marshy places; frequent. *Fl.* June, July.

*Obs.*—*A. bulbosus* (Linn.) supposed by Mr. Drummond to have been found in a salt marsh near Douglas, Cork, has not been observed recently.

[*A. agrestis* (Linn.) found growing as a weed in cultivated land at Castle Taylor, Galway (1854), and in the City Park at Cork (1858) was no doubt introduced in both localities, and cannot yet be considered thoroughly naturalized in Ireland.]

### SESLERIA Scop.

#### 1. *S. cærulea* (Scop.)—*Blue Moor-Grass*.

Districts - - - - - 6 - 8 9 - 11 -  
 Lat. 52°–55°. West of Ireland.

Type in Great Britain, Highland [or Scottish.]

Mountains and rocky pastures on limestone; very local. *Fl.* April, May.

6. Abundant on the west shore of Lough Derg, near Portumna; *D. M.* Plentiful about Castle Taylor and other places in East Galway; *A. G. M.* In the Great Island of Arran; *Prof. Balfour*; and probably all over Burren.—8. Frequent to the west of Galway; *Prof. Melville*. On the west side of the creek at Ballina, Mayo; *D. M.*—9. Shores

of Lough Carra, Mayo; *A. G. M.* On Ben Bulben and other mountains in Sligo; *Flor. Hib.* Glenade, Leitrim; *Admiral Jones*.—11. On the banks of the Erne, at Ballyshannon; *A. G. M.*

Ranges from about sea-level in Mayo to 1700 feet on Ben Bulben.

*NARDUS* Linn.

1. *N. stricta* (Linn.)—*Mat-Grass*.

Districts 1 2 - 4 5 6 - 8 9 - 11 12

Lat. 51°–56°. Throughout Ireland.

Type in Great Britain, British.

Heaths, moors, mountains; frequent. *Fl.* June.

From sea-level to 1850 feet on Errigal (*Flor. Ulst.*)

*MILIUM* Linn.

1. *M. effusum* (Linn.)—*Millet-Grass*.

Districts 1 2 - 4 - - - 8 9 10 - 12

Lat. 51°–55°. From South to North of Ireland.

Type in Great Britain, British, inclining to English.

Shady woods; rather rare. *Fl.* June.

1. Woods at Mucruss, Killarney; *D. M.*—2. Wood at Castle-hyde, Cork; *Drummond*. Fermoy; and in Dunscombe's wood, Cork; *Flor. Cork*. Fermoy wood; *Mr. T. Chandlee*. Near Clonmel (Miss A. Taylor); *J. C.*—4. Newtown Mount-Kennedy, Wicklow; *D. M.* Wood at Tinnehinch; *White*. Dargle and Powerscourt; *Flor. Hib.*—8. Drumman wood, near Lough Cullin; and wood on the shore of Lough Conn; *A. G. M.*—9. Woods near Sligo; *the late Mr. J. Wynne*.—10. Dunnamanagh, Tyrone; *Admiral Jones*.—12. Colin Glen; and Old Lodge road, near Belfast; *Flor. Ulst.*

*PHRAGMITES* Trin.

1. *P. communis* (Trin.)—*Common Reed*.

*Arundo Phragmites* (Linn.) Brit. Flor. and Bentham.

Districts 1 2 3 4 5 6 7 8 9 10 11 12

Lat. 51°–56°. Throughout Ireland.

Type in Great Britain, British.

Sides of lakes, ditches, marshes, and bogs; common. *Fl.* July.

*PSAMMA* P. Beauv.

1. *P. arenaria* (R. et S.) *Marram, Sea Mat-Grass.*

*Ammophila arundinacea* (Linn.) Flor. Hib.

Districts 1 2 - 4 5 6 - 8 9 - 11 12

Lat. 51°-56°. Coasts of all Ireland.

Type in Great Britain, British.

Sandy sea-shores; frequent. *Fl.* July.

*CALAMAGROSTIS* Adans.

1. *C. Epigejos* (Roth)—*Wood Reed.*

*Arundo Epigejos* (Linn.)

District - - - - - 12

Lat. 54°-56°. North of Ireland—Derry only.

Type in Great Britain, English, inclining to British.

Moist and rocky thickets; very rare. *Fl.* July.

12. On Formoyle hill, in the parish of Dunboe (sparingly); and between Maghera and Garvagh, Derry; *D. M.*

Said to have been found in Cork, but has not been observed recently.

2. *C. stricta* (Nutt.)—*Narrow Reed.*

*C. lapponica* (Hook.) *Arundo stricta* (Schrad.)

Districts - - - - - 10 - 12

Lat. 54°-55°. North-east of Ireland; about Lough Neagh only.

Type in Great Britain, Intermediate.

Stony margins of lakes; very local *Fl.* June, July.

Only on the shores and islands of Lough Neagh; in the counties of Armagh, Antrim, and Derry, and will probably be found in Tyrone also. 10. Island in Lough Neagh, near Maghera; *Flor. Ulst.* 12. Shane's Castle! *C. C. B.* Harbour Island, near Toom-bridge, growing with *Carex Buxbaumii*; *D. M.* First found in Ireland by *D. M.* in 1836.

*Obs.*—*C. lanceolata* (Roth.), *Arundo Calmagrostis* (Linn.) is given in the "Irish Flora" as found on the banks of the Lagan by Mr. Templeton. Probably an error.

## AGROSTIS Linn.

1. *A. canina* (Linn.)—*Brown Bent.*

Districts 1 2 3 4 5 6 7 8 9 10 11 12

Lat. 51°–56°. Throughout Ireland.

Type in Great Britain, British.

Heaths, moors, bogs; frequent. *Fl.* July, August.2. *A. vulgaris* (With.)—*Fine-leaved Bent.**A. vulgaris* var. Bentham.

Districts 1 2 3 4 5 6 7 8 9 10 11 12

Lat. 51°–56°. Throughout Ireland.

Type in Great Britain, British.

Dry pastures and heaths; common. *Fl.* July.

The variety *A. pumila* (Lightf.) is not unfrequent on heaths and in hilly places, and is probably the plant mentioned by Wade and White under the name of *Agrostis minima*.

Ranges from sea-level to 2190 feet on Muckish, and to 3,000 feet or more on the highest mountains.

3. *A. alba* (Linn.)—*Marsh Bent* or *Fiorin.*

Districts 1 2 3 4 5 6 7 8 9 10 11 12

Lat. 51°–56°. Throughout Ireland.

Type in Great Britain, British.

Meadows, pastures, &c., and rocks on the coast; common. *Fl.* July.

From sea-level to 1,000 feet, or higher.

*Obs.*—*A. setacea* (Curt.) Ballypnehane Bog, near Cork (*Drummond*). No doubt a mistake.

[*Anemagrostis Spica-venti* (Trin.) Near the Scots' Church, Sandymount, 1859; *Mackay Add.* (Probably sown.) On Ballypnehane bog (see *Flor. Cork*). Some species of *Agrostis* was no doubt mistaken for it.]

## HOLCUS Linn.

1. *H. lanatus* (Linn.)—*Meadow Soft-Grass.*

Districts 1 2 3 4 5 6 7 8 9 10 11 12

Lat. 51°–56°. Throughout Ireland.

Type in Great Britain, British.

Meadows and pastures; common. *Fl.* June, July.

This is the grass known to agriculturists under the name of "Yorkshire Fog."

2. *H. mollis* (Linn.)—*Creeping Soft-Grass.*

Districts 1 2 - 4 5 - - 8 9 10 - 12

Lat. 51°-56°. Throughout Ireland.

Type in Great Britain, British.

Woods, hedges, and pastures; not common. *Fl.* June, July.

AIRA Linn.

1. *A. cæspitosa* (Linn.)—*Tufted Hair-Grass.*

Districts 1 2 3 4 5 6 7 8 9 10 11 12

Lat. 51°-56°. Throughout Ireland.

Type in Great Britain, British.

Damp and boggy meadows, woods, &c.; very frequent. *Fl.* July.

2. *A. flexuosa* (Linn.)—*Waved Hair-Grass.*

Districts 1 2 - 4 5 - - 8 9 - 11 12

Lat. 51°-56°. Throughout Ireland.

Type in Great Britain, British.

Heaths, moors, mountains; frequent. *Fl.* July.

Abundant in most of the mountainous districts.

Ranges from about sea-level to 2646 feet on the top of Nephin.

3. *A. caryophyllea* (Linn.)—*Silvery Hair-Grass.*

Districts 1 2 3 4 5 6 7 8 9 10 11 12

Lat. 51°-56°. Throughout Ireland.

Type in Great Britain, British.

Heaths and dry banks; frequent. *Fl.* May, June.

4. *A. præcox* (Linn.)—*Early Hair-Grass.*

Districts 1 2 3 4 5 6 7 8 9 10 11 12

Lat. 51°-56°. Throughout Ireland.

Type in Great Britain, British.

Heaths and dry banks; frequent. *Fl.* May.

## TRISETUM Pers.

1. *T. flavescens* (Beauv.)—*Yellow Oat-Grass*.

*Avena flavescens* (Linn.) Brit. Flor., Bentham.

Districts 1 2 - 4 5 6 - 8 9 - - 12

Lat. 51°-55° or 56°. South and Middle of Ireland, chiefly.

Type in Great Britain, English, inclining to British.

Dry pastures; not common. *Fl.* July.

Rare in the north of Ireland. A single locality only is given in the "Flora of Ulster."

## A VENA Linn.

1. † *A. fatua* (Linn.)—*Wild Oat*.

Districts 1 2 - - 5 - - - - - - - -

Lat. 51°-54°. South and East of Ireland.

Type in Great Britain, British, inclining to English.

Corn-fields and cultivated land; rare and very local. *Fl.*

1. Corn-fields near Dingle, Kerry; *D. M.*—1 and 2. Not unfrequent near Cork; *Flor. Cork* and *I. C.*—5. Portmarnock, Dublin; *Mr. D. Orr*.

[2. \**A. strigosa* (Schreb.)—*Bristle-pointed Oat*.

*A. fatua* var. Bentham.

Districts 1 2 - 4 5 - - 8 - 10 - 12

Cornfields and cultivated land; rather rare. *Fl.* June to August.

Uncertain in its stations, and only found as a weed among crops, or as the remains of cultivation.]

3. *A. pubescens* (Linn.)—*Downy Oat-Grass*

*Avena pratensis* var. Bentham.

Districts 1 2 - 4 5 6 - 8 9 - 11 12

Lat. 51°-56°. From South to North of Ireland.

Type in Great Britain, British.

Dry banks and calcareous pastures; not unfrequent. *Fl.* June, July.

Rather local, and more frequent near the coast than inland.

*Obs.*—*A. pratensis* (Linn.) is included in the "Flora of Cork" as occurring at Blackrock, Glasheen, Whitepoint,



and Little Island, but has not come under the notice of Mr. Carroll. In Mr. J. Drummond's list *A. pratensis* only is given, and not *A. pubescens*, which latter is common in Cork. *A. pratensis* is also recorded to have been found near Dublin by the late Mr. Underwood (White); but "only in suspicious stations;" *Ir. Flor.*, and has not been observed of late years. The specimen from New Lodge road, preserved under the name of "*A. pratensis*," at Belfast, proves to be *Arrhenatherum avenaceum*; and Dr. Dickie thinks that the locality of "coast near Culdaff, Donegal" (*Flor. Ulst.*) had better be considered uncertain for the present.

*ARRHENATHERUM* Beauv.

1. *A. avenaceum* (Beauv.)—*Tall Oat-Grass.*

*Avena elatior* (Linn.)

Districts 1 2 3 4 5 6 7 8 9 10 11 12

Lat. 51°–56°. Throughout? Ireland.

Type in Great Britain, British.

Fields, banks, hedges; common. *Fl.* June, July.

Often a troublesome weed in cultivated land.

*TRIODIA* R. Br.

1. *T. decumbens* (Beauv.)—*Heath-Grass.*

Districts 1 2 3 4 5 6 7 8 9 10 11 12

Lat. 51°–56°. Throughout Ireland.

Type in Great Britain, British.

Heaths, moors, mountains; frequent. *Fl.* July.

From sea-level to 1500 feet on Sawel.

*KÆLERIA* Pers.

1. *K. cristata* (Pers.)—*Crested Hair-Grass.*

Districts - 2 - 4 5 6 - 8 9 - 11 12

Lat. 51°–56°. From South to North of Ireland.

Type in Great Britain, British.

Dry pastures, banks, and rocky places; not unfrequent.

*Fl.* June, July.

Chiefly on calcareous and basaltic ground, and on sand-hills and banks near the coast.

From sea-level to 1000 feet in Derry.

*MELICA* Linn.1. *M. uniflora* (Retz.)—*Wood Melick-Grass*.

Districts 1 2 - 4 5 6 - 8 9 10 11 12

Lat. 51°-56°. Throughout Ireland.

Type in Great Britain, English, inclining to British.

Woods and shady rocks; not unfrequent. *Fl.* May, June.

Not an abundant species, but widely distributed.

*MOLINIA* Schrank.1. *M. cærulea* (Mœnch.)—*Purple Moor-Grass*.

Districts 1 2 3 4 5 6 7 8 9 10 11 12

Lat. 51°-56°. Throughout Ireland.

Type in Great Britain, British.

Heaths and boggy pastures; frequent. *Fl.* July, August.*POA* Linn.1. *P. annua* (Linn.)—*Annual Meadow-Grass*.

Districts 1 2 3 4 5 6 7 8 9 10 11 12

Lat. 51°-56°. Throughout Ireland.

Type in Great Britain, British.

Meadows, pastures, and waste places; common. *Fl.* April to October.

Reaches 2200 feet on Sawel.

2. *P. alpina* (Linn.)—*Mountain Meadow-Grass*.

Districts 1 - - - - - 9 - - -

Lat. 51°-55°. West of Ireland—Kerry and Sligo.

Type in Great Britain, Highland.

On high mountains; very rare. *Fl.* July, August.

1. Near the well at the top of Brandon mountain, Kerry; *Mackay Rar.* On Brandon mountain, August, 1856 (Mr. T. Wright) *I. C.*—9. On Ben Bulben, and other mountains near Sligo; *Mackay Rar.* On Ben Bulben, viviparous; *the late Mr. J. Wynne.* The summit of Croagh Patrick, Mayo, is also given as a locality in Dr. Mackay's earlier catalogue, but was afterwards omitted. The plant gathered on Slieve Gullion, Derry, proves to be a variety of *P. pratensis* (Linn.)

Ranges from about 1600 feet on Ben Bulben to 3100 feet on Brandon.

3. *P. nemoralis* (Linn.)—*Wood Meadow-Grass*.

Districts - - - 4 5 - - - - - 12

Lat. 53°-56°. East and North of Ireland.

Type in Great Britain, British, inclining to English.

Woods, thickets, and rocky places on mountains; local and rare. *Fl.* June, July.

4. At the Dargle, Wicklow; *Mackay Cat. Ir.*—5. Between Luttrell's-town and Lucan; *Wade Rar.* Plentiful at Woodlands, Dublin; *Mackay Cat. Ir.* On walls near Lucan; *A. G. M.* Wild on a shady bank in the Botanic Garden, Glasnevin; *D. M.* Ballitore, Kildare; *I. C.* Near Straffan! Kildare; *Mr. J. Douglas*.—12. Woods about Rostrevor; wood on Knock-ree mountain, Down; and wooded mountains about Knappen, Antrim; *White.* North branch of Glenarve river, below the waterfall, and near the bridge at Cushendall road; Donard Lodge; *Flor. Ulst.* In woods near Newtown-Limavaddy, but rare in Derry; *D. M.*

4. *P. trivialis* (Linn.)—*Rough Meadow-Grass*.

Districts 1 2 3 4 5 6 7 8 9 10 11 12

Lat. 51°-56°. Throughout Ireland.

Type in Great Britain, British.

Pastures, thickets, and waste places; common. *Fl.* June, July.

Ranges from sea-level to 1500 feet or more.

5. *P. pratensis* (Linn.)—*Smooth Meadow-Grass*.

Districts 1 2 3 4 5 6 7 8 9 10 11 12

Lat. 51°-56°. Throughout Ireland.

Type in Great Britain, British.

Pastures, banks, walls, mountains, &c.; common. *Fl.* June, July.

From sea-level to 1600 feet in Derry, and 2796 feet on Slieve Donard.

6. † *P. compressa* (Linn.)—*Flat-stemmed Meadow-Grass*.

Districts - - - - 5? 6? - - - - 11 -

Lat. 54°-55°. North of Ireland—Londonderry only.

Type in Great Britain, British, inclining to English.

Walls, and dry banks; very rare. *Fl.* June, July.

5? Rocky ground at foot of the Dublin mountains; *White, M.S.* About Tighmhuillin, and Tullyallen, Louth; *White*.—6.? Walls and dry banks between Galway and Tuam; *White*.—11. In several places on the old walls of Londonderry; *D. M.*

Not recently found in Dublin or Louth, and we fear that some other species was mistaken for it in both counties.

### GLYCERIA R. Br.

#### 1. *G. aquatica* (Sm.)—*Reed Meadow-Grass.*

*Poa aquatica* (Linn.) Brit. Flor., Flor. Hib.

Districts 1 2? - 4 5 - 7 - - - - -

Lat. 53°-54°. Centre and East of Ireland.

Type in Great Britain, English, inclining to British.

Sides of rivers and ditches; very local. *Fl.* July, August.

Very rare in the south. 1 and 2. In a stream running into the Lee, near Cork; in one place only near a mill; *Mr. J. Sullivan*. By a stream near Donnybrook, and by the South Bride, very rare; *Flor. Cork*. Not seen by Mr. Carroll.—4. Ballyconigar! Wexford; *I. C.* Ditches on the Murrough of Wicklow; *D. M.*—5. In the river above the mill-pond at Ballitore, Kildare; *I. C.* Near Straffan, Kildare; *Mr. J. Douglas*. By the Liffey at Chapelizod; *A. G. M.* Along the Liffey; *Mr. J. White, M. S.* On the banks of the Grand Canal; *White*. In the Grand! and Royal! Canals; and ditches adjoining; *Ir. Flor.* Plentiful in the Canals near Dublin, extending to Kildare; *D. M.*—7. Ditches near Belvedere Lake, Mullingar; *D. M.*

#### 2. *G. fluitans* (R. Br.)—*Floating Grass.*

*Poa fluitans* (Scop.) Brit. Flor., *Festuca fluitans* (Linn.)

Districts 1 2 3 4 5 6 7 8 9 10 11 12

Lat. 51°-56°. Throughout Ireland.

Type in Great Britain, British.

Ditches and pools; abundant and common. *Fl.* June, July.

*G. plicata* (Fries.)

Districts - - - - 5 6 - - 9 - - -

5. Near Glasnevin and Dublin; *A. G. M.*—6. About Castle Taylor, Galway; *A. G. M.*—9. Near Hollymount, Mayo; *A. G. M.* Far less common than *G. fluitans*, but will probably be found widely distributed in Ireland.

## SCLEROCHLOA Beauv.

1. *S. maritima* (Lindl.)—*Sea Meadow-Grass.*

*Poa maritima* (Huds.) Brit. Flor., *Glyceria maritima* (M. et K.)

Districts 1 2 - 4 5 6 - 8 9 - 11 12

Lat. 51°–56°. Coasts of all Ireland.

Type in Great Britain, British.

Salt marshes, and muddy sea shores; frequent. *Fl.* June, July.

2. *S. distans* (Bab.)—*Reflexed Meadow-Grass.*

*Poa distans* (Linn.) Brit Flor., &c., *Glyceria distans* (Wahl.)

Districts 1 - - - 5 - - - - - 12

Lat. 51°–55°. South and East Coasts of Ireland.

Type in Great Britain, English, inclining to British.

Salt marshes and waste ground near the sea; rare. *Fl.* June to August.

1. River side below Cork; *Drummond.* Near Douglas and Cork; *Flor. Cork.* In South Cork only; *I. C.*—5. At Howth and North Wall! Dublin; *Wade Rar.* Ringsend; *Mackay Cat. Ir.* Way-side from Ballybough Bridge to Clontarf; *White.* In the "Lots" below the Custom House! *Ir. Flor.* Near Kingstown; *D. M.*—12. Shore from Belfast to Holywood; shore at Portaferry, &c.; *Flor. Ulst.* Abundant about Belfast; *D. M.*

3. *S. Borreri* (Bab.)—*Borrer's Sea Meadow-Grass.*

*Poa Borreri* (Hook.)—Brit. Flor. *Poa distans* var. Bentham.

District - - - - 5 - - - - -

Lat. 53°–54°. East Coast of Ireland—Dublin only.

Type in Great Britain, Germanic.

Salt marshes, and waste ground near the sea; very rare. *Fl.* June to August.

5. Plentiful in the North Lots, near the mouth of the Liffey; at Sandymount, and along Dublin Bay; *D. M.*

This is almost always found growing in company with *P. distans* and *P. procumbens*, and may be a hybrid or variety.

4. *S. procumbens* (Beauv.)—*Procumbent Sea Meadow-Grass*.

Districts 1 - - - 5 - - - - - 12?

Lat. 51°-54°. South and East coasts of Ireland.

Type in Great Britain, English, inclining to Germanic.

Salt marshes and waste ground near the sea; *Fl.* June to August.

1. River side below Cork; *Drummond*. Sometimes abundant in the City Park at Cork, but uncertain in its appearance; *Prof. E. Murphy* and *Mr. J. Sullivan*. Gathered once only near Cork by *Mr. Carroll*.—5. In the salt marsh ground called the North Lots, Dublin; at Sandymount, and along Dublin Bay; *D. M.*—12? Muddy shores at Comber; *Flor. Belf.* Near Larne; *Flor. Ulst.* (either this or *S. Borreri*; *D. M.*)

5. *S. rigida* (Link)—*Hard Meadow-Grass*.

*Poa rigida* (Linn.) Brit. Flor., Bentham, &c.

Districts 1 2 - 4 5 6 - - - 11 12

Lat. 51°-56°. From South to North of Ireland.

Type in Great Britain, British, inclining to English.

Dry banks, rocks, walls, and broken ground, usually on a calcareous soil; local, and rather rare. *Fl.* June, July.

Common about Cork and Dublin, and probably not unfrequent in the south and middle of Ireland. Rare in the north.—11. Rocks at Glen Columbkil, Donegal; *Admiral Jones*. In the county of Donegal; *Prof. E. Murphy*.—12. Walls of Carlingford Castle; *Flor. Ulst.*

18. *S. loliacea* (Woods)—*Dwarf Sea Wheat-Grass*.

*Poa loliacea* (Huds.) Brit. Flor. *Catapodium loliaceum* (Link.)

Districts 1 2 - 4 5 - - 8 - - 11 12

Lat. 51°-56°. Coasts of all Ireland.

Type in Great Britain, English.

Sandy sea-shores and waste ground near the sea; rather local. *Fl.* June, July.

1. At Dingle, Kerry; *Rev. W. M. Hind.*—2. At Clay Castle, Youghal; *Flor. Cork.* In north Cork only; *I. C.*—4. On many parts of the coast of Wicklow; *D. M.*—5. Shore at Sutton and Howth; *White.* Clontarf; *Ir. Flor.*—8. Shore of Galway Bay; *Prof. Melville.*—11. North coast of Donegal! *Mr. C. Moore.* Innishowen Head, Dunfanaghy, and Culdaff, Donegal; *Flor. Ulst.*—12. At Ballintoy, Antrim; and Portrush, Derry; *D. M.* Shores of Belfast Bay; *Mr. S. A. Stewart.* Portaferry; Carrickfergus; Curran of Larne; Ballycastle; Rathlin; Portstewart; *Flor. Ulst.*

[*Desmazeria sicula* (Dum.) has been once found growing in some quantity by roadsides in Kerry, having probably been introduced by some accident; *Seemann's Journal of Botany*, iii., p. 156.]

## BRIZA Linn.

1. † *B. minor* (Linn.)—*Small Quaking-Grass.*

District 1 - - - - -  
 Lat. 51°-52°. Extreme South of Ireland—Cork only.  
 Type in Great Britain, Atlantic.

Cultivated fields; very rare. *Fl.* July.

1. Found in considerable quantity in a field near the railway station at Blackrock, Cork, in 1859; *Mr. J. Sullivan* (and *Dr. Power*); *I. C.*

As only one species of *Briza* is given in *Mr. Drummond's* list, it seems probable that the locality of "fields near Douglas" may belong to *B. media*, which, however, is rare near Cork.

2. *B. media* (Linn.)—*Common Quaking-Grass.*

Districts 1 2 3 4 5 6 7 8 9 10 11 12  
 Lat. 51°-56°. Throughout Ireland.  
 Type in Great Britain, British, inclining to English.  
 Heaths and dry pastures; frequent. *Fl.* June, July.

## CATABROSA Beauv.

1. *C. aquatica* (Presl)—*Water Whorl-Grass.*

Districts 1 2 - 4 5 6 - 8 9 - 11 12  
 Lat. 51°-56°. Throughout Ireland.  
 Type in Great Britain, British.

Ditches, pools, and banks of rivers; not unfrequent. *Fl.* June, July. Rather rare about Cork, and local in Ulster; but appears to be widely and generally distributed.

*CYNOSURUS* Linn.

1. *C. cristatus* (Linn.)—*Dog's-tail Grass*.

Districts 1 2 3 4 5 6 7 8 9 10 11 12

Lat. 51°–56°. Throughout Ireland.

Type in Great Britain, British.

Pastures; common. *Fl.* July, August.

*DACTYLIS* Linn.

1. *D. glomerata* (Linn.)—*Cock's-foot Grass*.

Districts 1 2 3 4 5 6 7 8 9 10 11 12

Lat. 51°–56°. Throughout Ireland.

Type in Great Britain, British.

Damp pastures, banks, and shady places; common. *Fl.* June, July.

*FESTUCA* Linn.

1. *F. uniglumis* (Sol.)—*Single-glumed Fescue*.

Districts - - - - 5 - - - - - 12

Lat. 53°–56°. East coast of Ireland.

Type in Great Britain, English.

Sandy sea-shores; local and rare. *Fl.* June.

5. On the sand-hills at Portmarnock! *Mackay Cat. Ir.* Ireland's Eye, opposite Howth; *A. G. M.* Sand-hills at Portrane, near Malahide; *D. M.* Sand-hills on the south side of the Boyne, near Drogheda; *D. M.* Copeland Islands, Down (Mr. Whitla); Cushendall, Antrim (Mr. Thompson); *Flor. Ulst.*

2. *F. sciuroides* (Roth.)—*Barren Fescue*.

*F. bromoides* (Linn.), Brit. Flor. *F. Myurus* (Linn.), Bentham.

Districts 1 2 - 4 5 6 - 8 9 - 11 12

Lat. 51°–56°. Throughout Ireland.

Type in Great Britain, British.

Sandy banks, dry pastures, walls, &c.; not unfrequent. *Fl.* June.



3. ? *F. Myurus* (Linn.)—*Capon's-tail Fescue*.*F. Myurus* var., Brit. Flor., Bentham.

Districts — 2 — — — — — 9 — — —

Lat. 52°–54°. South and Middle of Ireland.

Type in Great Britain, English.

Dry banks and walls; very rare. *Fl.* June.2. Fermoy! *Herb. T. Chandlee*.—9. On the banks of the Robe, a little below Hollymount, Mayo; *A. G. M.*These are the only two localities at present known. The stations recorded in Derry, and Cork, and, as we believe, also that given in the Flora of Ulster, belong to *F. sciurooides*.4. *F. ovina* (Linn.)—*Sheep's Fescue*.

Districts 1 2 3 4 5 6 7 8 9 10 11 12

Lat. 51°–56°. Throughout Ireland.

Type in Great Britain, British.

Dry pastures, heaths, moors, mountains; common. *Fl.* June, July.*Var. β duriuscula* (*F. durnuscula*, Linn.)

Frequent in pastures, and occurs in all the districts.

Often viviparous in mountainous districts, even at quite low elevations in the west of Ireland, as about Oughterard, &amp;c.

Ranges from sea-level to 3000 feet or more.

5. *F. rubra* (Linn.)—*Creeping Fescue*.*F. ovina* var. Brit. Flor., Bentham.

Districts 1 2 3 4 5 6 7 8 9 10 11 12

Lat. 51°–56°. Throughout Ireland.

Type in Great Britain, British.

Pastures and banks; frequent, especially near the coast. *Fl.* June.*Var. β arenaria* (*F. arenaria*, Osb.)

Frequent on sand-hills near the sea.

6. *F. sylvatica* (Vill.)—*Reed Fescue*.*F. Calamaria* (Sm.), Flor. Hib.

Districts 1 2 3 4 — — — — — 10 — 12

Lat. 51°–56°. From South to North of Ireland.

Type in Great Britain Scottish.

Rocky upland woods and mountain glens ; rare. *Fl.* July.

1. Cromaglaun woods, near the lake at Killarney ; *D. M.*—
2. Near Morgan's Glen, Waterford (Miss S. Grubb) ; *I. C.*—
3. Woods at Woodstock, Kilkenny ; *Mackay Cat. Ir.*—4. Wood near Newtown-Barry, Wexford ; *Wade Rar.* On the south side of the river at the Dargle, Wicklow ; *Wade Rar.* and *Mackay Cat. Ir.* Wooded banks at Powerscourt Waterfall ; *Mackay Cat. Ir.* Devil's Glen ; *D. M.*—8. In Drumman Wood, near Lough Cullin ; and on the shores of Lough Conn, Mayo ; *A. G. M.*—10. Strabane Glen, Tyrone ; *Admiral<sup>s</sup> Jones.*—12. Woods at Rostrevor, Down ; *Wade Rar.* Colin Glen (Mr. Templeton) ; White Rock Mountain, near Belfast ; *Flor. Ulst.* Glendoon and Glenarm, Antrim ; and in Mount-sandy Wood, by the Bann, in Derry ; *D. M.*

7. *F. gigantea* (Vill.)—*Tall Wood-Fescue.*

*Bromus giganteus* (Linn.), Bentham.

Districts 1 2 3 4 5 6 7 8 9 10 11 12  
 Lat. 51°–56°. Throughout Ireland.

Type in Great Britain, British, inclining to English.

Woods, thickets, and hedges ; frequent. *Fl.* July, August.

8. *F. arundinacea* (Schreb.)—*Coarse Fescue.*

*F. elatior* (Linn.), Brit. Flor., Bentham.

Districts 1 2 - 4 5 6 - 8 9 - 11 12  
 Lat. 51°–56°. From South to North of Ireland.

Type in Great Britain, English.

Banks near the sea, and along rivers, in rough pastures, &c. ; chiefly near the coast, and not a common species ; rather local. *Fl.* June, July.

9. *F. pratensis* (Huds.)—*Meadow Fescue.*

*F. elatior* var. Bentham.

Districts 1 2 3 4 5 6 7 8 9 10 11 12  
 Lat. 51°–56. Throughout Ireland.

Type in Great Britain, British.

Moist meadows and rich pastures ; frequent. *Fl.* June, July.

One of the most valuable grasses for agricultural purposes. The form *loliacea* (*F. loliacea* Huds.) occurs occasionally in damp places.

*BROMUS* Linn.

1. *B. erectus* (Huds.)—*Upright Brome-Grass*.

Districts — 2 — — 5 6 — — — — —

Lat. 51°–54°. South and Middle of Ireland.

Type in Great Britain, Germanic, inclining to English.

Pastures and banks on a calcareous soil; rare. *Fl.* June.

2. Near Blarney; and in moist sandy fields at Ballyvolane; *Flor. Cork*.—5. On the lands of Santry and Coolock; along the sides of the Royal Canal; and south side of the river Tolka, Dublin; *White*. Hedges near Glasnevin; *D. M. Finglas*; *Mackay Cat. Ir.* Fields near Portmarnock; *D. M.*—

6. Abundant in Garryland Wood, near Gort, Galway; *A. G. M.*

2. *B. asper* (Linn.) *Hairy Wood Brome-Grass*.

Districts 1 2 3 4 5 6 7 8 9 10 11 12

Lat. 51°–56°. Throughout Ireland.

Type in Great Britain, British, inclining to English.

Woods, thickets, and hedges; frequent. *Fl.* July.

3. *B. sterilis* (Linn.)—*Barren Brome-Grass*.

Districts 1 2 — 4 5 6 — 8 9 10 11 12

Lat. 51°–56°. From South to North of Ireland.

Type in Great Britain, British, inclining to English.

Dry banks, walls, road-sides, and waste places; local and rather rare. *Fl.* June, July.

Common near Cork, Dublin, and in the neighbourhood of a few other towns; but rare in the north of Ireland, and throughout the country.

4. † *B. diandrus* (Curt.)—*Stiff Brome-Grass*.

*B. madritensis* (Linn.) Brit. Flor. and Bentham.

District — 2 — — — — — — — — —

Lat. 52°–53°. South of Ireland—Tipperary only.

Type in Great Britain, Atlantic.

Dry sandy banks, walls, and waste places; very rare. *Fl.* June, July.

Rather plentiful on the old castle at Carrick-on-Suir, said to have been built in the 12th century; also at the foot of several old walls adjacent, and on the bridge which connects the counties of Tipperary and Waterford! *Miss S. Grubb*. This is the only locality known in Ireland, and as the plant appears to be confined to walls and ruins, there may be some reason for suspecting that it has been introduced. The locality probably extends to the county of Waterford.

5. † *B. secalinus* (Linn.)—*Rye Brome-Grass*.

*Serrafalcus secalinus* (Bab.) *Bromus arvensis* var. Benth.

Districts 1 2 - - 5 6 - - - - 12

Lat. 51°–55° or 56°. From South to North of Ireland.

Type in Great Britain, British, inclining to English.

Corn-fields; rare, and probably sown with the crop. *Fl.* July, August.

Chiefly in the south and east of Ireland; uncertain in its appearance, and hardly established as a “colonist” or agricultural weed.

6. *B. racemosus* (Linn.)—*Smooth Brome-Grass*.

*Serrafalcus racemosus* (Parl.) Bab. Man. *Bromus arvensis* var. Benth.

Districts 1 2 - 4 5 - - 8 9 - - 12

Lat. 51°–56°. Throughout Ireland.

Type in Great Britain, British.

Moist meadows and pastures; not unfrequent. *Fl.* June.

Far less common than *B. mollis*, but will probably be found in every county. It grows especially in rich meadows bordering on the larger rivers.

7. *B. commutatus* (Schrad.)—*Taper Brome-Grass*.

*Serrafalcus commutatus* (Bab.) *Bromus arvensis* Flor. Hib. and Benth.

Districts 1 2 3? - 5? 6 - - - (10) - -

Lat. 52°–54°. South and Middle of Ireland.

Type in Great Britain, British.

Banks, road-sides, meadows, and cultivated fields; very rare. *Fl.* June, July.

1. Meadow at Balleagh Castle, Carrigaline, plentiful; *I. C.*—2. Near Fermoy! *Mr. T. Chandlee.* Near Cork, and Evergreen (*B. arvensis*); *Flor. Cork.*—3? Low meadows near Cullenagh, Queen's County; *Flor. Hib.*—(perhaps *B. racemosus*.)—5? Way-sides between Raheny and Howth (*B. arvensis*); *Mr. J. White, MS.* Moist meadows near Sandymount; *Mackay Cat. Ir.*—6. In wooded and bushy places along the Shannon, near Portumna; *D. M.* At Castle Taylor, Galway (introduced with grass seed); *A. G. M.*—(10.) In fields of sown grass, in Loughgall, &c., in Armagh *A. G. M.*

The distribution of this grass is very imperfectly known it appears native on the banks of the Shannon; *D. M.*

8. *B. mollis* (Linn.)—*Soft Brome-Grass.*

*Serrafalcus mollis* (Parl.) Bab. Man. *Bromus arvensis* var. Bentham.

Districts 1 2 3 4 5 6 7 8 9 10 11 12  
Lat. 51°–56°. Throughout Ireland.

Type in Great Britain, British.

Meadows, pastures, banks, &c.; common. *Fl.* May, June.

[*B. arvensis* (Linn.); has been gathered in sandy cultivated land at Malone! Belfast, where it had no doubt been accidentally sown with the crops].

*BRACHYPODIUM* Beauv.

1. *B. sylvaticum* (R. et S.)—*False Brome-Grass.*

Districts 1 2 3 4 5 6 7 8 9 10 11 12  
Lat. 51°–56°. Throughout Ireland.

Type in Great Britain, British.

Woods, hedges, and rocky places; frequent. *Fl.* July.

*Obs.*—*B. pinnatum* (Beauv.) is said to have been found near Cork (*Flor. Hib.*), but probably a state of *B. sylvaticum*, was mistaken for it.

*TRITICUM* Linn.1. *T. caninum* (Huds.)—*Tufted Wheat-Grass*.

Districts 1 2 3 4 5 6 - - - - 12  
 Lat. 51°-56°. From South to North of Ireland.

Type in Great Britain, British.

Woods and hedges; rather rare. *Fl.* July.

1 and 2. Frequent near Cork; *Flor.* Cork and *I. C.*—2. At Carrickabrick, near Fermoy, but rare; *Mr. T. Chandlee*.—3. Near Kilmacow, Kilkenny; *Mr. T. Chandlee*.—4. Powerscourt Woods, Wicklow; *D. M.*—5. Plentiful at Woodlands! Dublin; *Mackay Cat. Ir.* Knockmaroon; Woodlands, Leixlip; *Ir. Flor.* And other places about Dublin; *D. M.*—6. Garryland Wood, near Gort; *A. G. M.*—12. Frequent in wastes and on banks in Ulster; *Flor. Ulst.*

A variety of *T. repens*, with long awns, is constantly mistaken for *T. caninum*, which appears to be quite a scarce plant, in Ireland.

2. *T. repens* (Linn.)—*Couch-Grass*.

Districts 1 2 3 4 5 6 7 8 9 10 11 12  
 Lat. 51°-56°. Throughout Ireland.

Type in Great Britain, British.

Fields, banks, waste places, &c.; common. *Fl.* July.

*Var. β T. pungens* (Pers.)

On the sea-shore; probably common.

*T. acutum* (D C.) *T. laxum* (Fries) Brit. Flor.

Districts 1 2 - 4 5 - - - 9 - 11 12  
 Sandy sea-shores; frequent. *Fl.* July, August.

This has often been mistaken for *T. junceum*, but its character and appearance are more nearly those of *T. repens*.

A large and very glaucous form grows on the Murrough of Wicklow, and at the mouth of the Boyne, near Drogheda.

3. *T. junceum* (Linn.)—*Sea Wheat-Grass*.

*T. repens var.* Bentham.

Districts 1 2 - 4 5 6 - 8 9 - 11 12  
 Lat. 51°-56°. Coasts of all Ireland.

Type in Great Britain, British.

Sandy sea shores; frequent. *Fl.* July, August.

## ELYMUS Linn.

1. *E. arenarius* (Linn.)—*Sea Lyme-Grass*.

Districts - - - 4 - - - 9 - 11 12

Lat. 52°-56. North coast of Ireland, chiefly.

Type in Great Britain, Scottish, inclining to British.

Sandy sea-shores; rare and very local. *Fl.* July.

4. Curacloa, Wexford; *I. C.*—9. Coast between Ballyshannon and Sligo (Mr. E. Murphy); *Flor. Hib.* At Bundoran; and on Aranmore Island, Donegal; *Prof. E. Murphy*. Mullaghmore, and on the sea-sands in many places in Donegal; *Admiral Jones*. Horn Head, and Dunfanaghy; sandy shores north of Innishowen Head; *Flor. Ulst.*—12. Bays at Ballyholme, Dundrum, and Ballywalter (Mr. Millen); *Flor. Ulst.*

The localities of "Sand-bank at the western extremity of Bere (*Flor. Hib.*), and "Ballycotton strand," have been given on the authority of Mr. Drummond; but as *Psamma arenaria* is not included in Mr. Drummond's list, there is reason to fear a mistake.

## HORDEUM Linn.

1. *H. sylvaticum* (Huds.)—*Wood Lyme-Grass*.

District - - - 5 - - - - -

Lat. 53°-54°. East of Ireland—Dublin only.

Type in Great Britain, Germanic, inclining to English.

Shady thickets; very rare. *Fl.* July, August.

5. In a thicket or copse bordering on the terrace at Mount Merrion! Dublin; *Mr. T. Bain*. The plant grows here in some quantity, in what is now a shrubbery planted with evergreens, but is probably native, not being a plant likely to be introduced. With *Crepis taraxacifolia*, it may be quoted as an instance of a species belonging to Watson's "Germanic" type, growing very sparingly on the east coast of Ireland.

2. *H. pratense* (Huds.)—*Meadow Barley*.

Districts 1 2 - 4 5 - - - - 12

Lat. 51°-55°. South and East of Ireland.

Type in Great Britain, English.

Moist meadows, usually near the coast; very local. *Fl.* June, July.

1 and 2. Rare near Cork; *Flor. Cork*. But occurs in both divisions of the county; *I. C.*—4. Murrough of Wicklow; *D. M.*—5. Meadows about Dublin! *Flor. Hib.* By the canal towards Castle-nock; *Mr. J. White, M.S.* Fields at Glasnevin and Portmarnock; *D. M.*—12. At Whitehouse and Conn's Water, near Belfast (Mr. Templeton); *Flor. Ulst.*

3. † *H. murinum* (Linn.)—*Wall Barley*.

Districts 1 2 - - 5 6 - - 9 - - 12  
 Lat. 51°-55°. South and East of Ireland.

Type in Great Britain, English, inclining to British.

Waste ground, way-sides, and at the foot of walls; very rare. *Fl.* June to September.

1. At Haulbowline, Cork, on rocks, but very rare; *Mr. J. Sullivan*. On a wall near Douglas Bridge; *Flor. Cork*. Never seen in Cork by Mr. Carroll.—2. Near Clonmel; sparingly; *D. M.*—4. Murrough of Wicklow; *D. M.*—5. Upon the sides of the highway, and walls leading to Baginbally; *Threlkeld*. Common about Dublin! *Flor. Hib.* On the shore at Swords and Rush; *D. M.* Killiney; *A. G. M.*—6. Under walls at Ballinasloe and (9) at Athlone; *Mr. F. J. Foot*.—12. Carlingford Castle walls (Mr. Hyndman); *Flor. Ulst.*

Only in and about towns and buildings, and possibly introduced.

*Obs.*—*H. maritimum* (With.) is said to have been found at Youghal and Ballycotton (*Flor. Cork*), and sparingly on sandy and gravelly banks along the sea shore between Swords and Rush; *White*. [Between Swords, Rush, and Balbriggan; *Irish Flora*] but it seems probable that *H. murinum* was gathered in these localities.

*LEPTURUS* R. Br.

1. *L. incurvatus* (Trin.)—*Sea Hard Grass*.

*Rottböllia incurvata* (Linn.) *Flor. Hib.*

Districts 1 2 - 4 5 6 - 8 9 - 11 12  
 Lat. 51°-56°. Coasts of nearly all Ireland.

Type in Great Britain, English.



Salt marshes and waste ground near the sea; frequent.  
*Fl.* July, August.

Rather local, but appears to be widely distributed wherever there are suitable localities, and is probably often overlooked.

*LOLIUM* Linn.

1. *L. perenne* (Linn.)—*Rye-Grass*.

Districts 1 2 3 4 5 6 7 8 9 10 11 12  
 Lat. 51°–56°. Throughout Ireland.

Type in Great Britain, British.

Pastures, way-sides, banks, &c.; frequent, *Fl.* June, July.

[*L. italicum* (A. Braun.), *Italian Rye-Grass*, is occasionally seen in fields and waste places, but only as an escape from, or remains of, cultivation.]

2. † *L. temulentum* (Linn.)—*Darnel*.

Districts 1 2 3 4 5 6 7 - - - 11 12  
 Lat. 51°–56°. From South to North of Ireland.

Type in Great Britain, British, inclining to English.

In cultivated fields among corn; locally abundant. *Fl.* June to August.

The variety *L. arvense* (With.) is not unfrequent.

[*L. Linicola* (Sond.) has occurred as an introduced weed among flax, having been collected by *D. M.* in the counties of Derry and Down; and possibly the "*L. arvense*" found by Mr. Drummond in fields of flax near Cork was *L. Linicola*.]

*Obs.*—" *Panicum sanguinale*" recorded by Wade (*Plantæ Rar.*, p. 9) as found sparingly in the sand-hills of Dough, Clare, which is also the station for *Matthiola sinuata* and *Viola "lutea,"* may possibly prove to be *Cynodon Dactylon*, which would be a highly interesting addition to the Irish Flora.

[*Echinochloa (Panicum) Crus-galli* was found by Mr. J. Morrison in 1847 growing on a newly made ditch-bank, near Camolin, Wexford, where it was accompanied by *Melilotus vulgaris* (Willd.) Both plants have since disappeared, and we have no doubt that their seeds had been accidentally introduced.]

## ACOTYLEDONES OR CRYPTOGAMEÆ.

## ORDER LXXXII.—EQUISETACEÆ.

*EQUISETUM* Linn.1. *E. arvense* (Linn.)—*Field Horse-tail*.

Districts 1 2 3 4 5 6 7 8 9 10 11 12

Lat. 51°–56°. Throughout Ireland.

Type in Great Britain, British.

Damp fields, way-sides, and waste places; frequent. *Fl.*  
April.2. *E. umbrosum* (Willd.)—*Blunt-topped Horse-tail*.*E. Drummondii* (Hook.) Flor. Hib.

Districts - - - - - - - - - - 11 12

Lat. 54°–56°. North of Ireland.

Type in Great Britain, Scottish.

Wet places and mountain glens; local. *Fl.* April.

11. At Culdaff; near an old mine between Dunfanaghy and Gweedore; at Mount Charles, and near the town of Donegal; *Flor. Ulst.*—12. Wolf Hill, near Belfast; *Flor. Hib.* At the base of Divis mountain; Loonburn; near Donegore; between Doagh and Antrim; and Boyd's Glen at Wolf Hill; Woodburn Glen, Carrickfergus; *Flor. Ulst.* Hill above Hannah's-town; *Mr. S. A. Stewart*. Not unfrequent in the mountain glens of Antrim, as near the base of Slemish mountain, above the village of Buckna; Head of Glenariff; near Cushendall; head of Glenballyeamore, &c.; *D. M.*

3. *E. maximum* (Lam.)—*Great Horse-tail*.*E. Telmateia* (Ehrh.) Brit. Flor., &c., *E. fluviatile* Flor. Hib.

Districts 1 2 3 4 5 - - - - 10 11 12

Lat. 51°–56°. From South to North of Ireland.

Type in Great Britain, English, inclining to British.

Damp fields, and wet shady places; not unfrequent. *Fl.* April.

Apparently more rare in the west, but will probably be found in every county.

4. *E. sylvaticum* (Linn.)—*Wood Horse-tail.*

Districts 1 2 - 4 5 - 7 8 9 10 11 12  
Lat. 51°-56°. Throughout Ireland.

Type in Great Britain, British.

Wet shady places, moist woods, hedge-banks, &c.; not unfrequent. *Fl.* May, June.

Chiefly in mountainous situations, and abundant in the north of Ireland. Rather scarce in some of the lowland districts.

5. *E. limosum* (Linn.)—*Water Pipes.*

Districts 1 2 3 4 5 6 7 8 9 10 11 12  
Lat. 51°-56°. Throughout Ireland.

Type in Great Britain, British.

Ditches and pools, sides of lakes and rivers; common. *Fl.* June, July.

An abundant species, often filling the bog ditches, and very generally distributed. The peasantry give it the appropriate name of "pipes."

6. *E. palustre* (Linn.)—*Marsh Horse-tail.*

Districts 1 2 - 4 5 - - 8 9 10 11 12  
Lat. 51°-56°. Throughout Ireland.

Type in Great Britain, British.

Boggy and marshy places; frequent. *Fl.* June to August.

Far less abundant than *E. limosum*, but occurs probably in every county.

7. *E. hyemale* (Linn.)—*Shave-grass, Dutch Rushes.*

Districts 1 - 3 4 5 - - - - - 12  
Lat. 51°-55°. From South to North of Ireland.

Type in Great Britain, Scottish, inclining to British.

Marshy woods, and wet shady places; rare. *Fl.* July, August.

1. In a bog by the river Brick, near Lixnaw; *Smith's "Kerry."* By the river Lee; *Drummond*. Near Ballincollig; and the Ovens; *Flor. Cork*.—3. In Sir R. Staple's woods, Queen's-county; *Mackay Bar*.—4. In Powerscourt demesne; *Flor. Hib*.—5. In Finglas wood; *Rutty*. On the banks of the Liffey at Lucan! and near Woodlands! *Ir. Flor.* Wood at Leixlip; *C. C. B.*—12. Colin Glen; Springfield, and banks of the Forth river, near Belfast; shores of Lough Neagh at Shane's Castle; and marshy and shady spots among the sand-hills at Dundrum, Down; *Flor. Ulst.* In Mountsandy woods; and by the Agivey river near Garvagh, Derry; Glenarm, and in many of the glens of Antrim; *D. M.*

*E. Moorei* (Newman).

District - - - 4 - - - - -

Very rare.—4. On wet rocky banks facing the sea, and on open sand-hills a little south of Rockfield, and not far from Dunganstown, Wicklow; *D. M.*

Nearer to *E. hyemale* than to *E. trachyodon*. This is the only *Equisetum* of the present section whose stems are annually deciduous. As compared with *E. hyemale*, the stems are much more slender and flexile, and taper to a fine point; the ribs are less numerous; the sheaths a little looser, and their brown appendages more persistent; as in *E. hyemale*, the black mark at the bottom of the sheaths is usually truncate at the base, and seldom runs down upon the ribs as in *E. trachyodon* and the others.

It is worth inquiry whether the plant which grows on the sandhills at Dundrum, Down, above given under *E. hyemale*, may not really belong to *E. Moorei*.

*E. trachyodon* (A. Braun.)—*E. Mackaii* (Newman).

Districts - - - - - 8 9 - - 12

Rare.—8. In Drumman wood and on the adjacent shores of Lough Cullin, Mayo; *A. G. M.*—9. On the shore of Lough Carra, Mayo (possibly this); *Mr. J. Ball*, who records *E. variegatum* in this locality.—12. In Colin Glen, near Belfast; on moist banks at its upper end and near a waterfall; *Flor.*

*Hib.* (under *E. variegatum*). In Ballyharrigan Glen, near Dungiven, Derry; and in several glens near Glenarm, Antrim; *D. M.*

This is not always easily distinguished from large specimens of *E. Wilsoni*. The sheaths are sometimes marked with white in the upper portion of the stem, usually black above and green in their lower portion, ultimately wholly black. Some specimens, almost decumbent, gathered on the sandy shore of Lough Cullin come very near to *E. Wilsoni*, except that their sheaths are more black, and the deciduous teeth longer. These teeth have a black centre, when young (as seen usually on the upper part of the stem), but become altogether membranous white when older.

After a series of careful observations made in Antrim, Mr. D. Orr considers that the normal state of *E. trachyodon* is the unbranched form. In exposed situations, when broken by the wind or injured by cattle, the stems throw out lateral shoots from near the point of injury. Mr. Orr has found that the plant is easily propagated from cuttings of the plant containing three or four joints.

*E. Wilsoni* (Newman).

Districts 1 - - - 5 6 - - - - -

Rare.—1. Ditches bordering on the lake in Mucruss demesne, Killarney (Mr. Wilson); *Brit. Flor.*, &c.—5. Along the Royal Canal, east of Clonsilla station, Dublin, abundant for a considerable distance; *D. M.* Sparingly on the bank of the same canal a little below the bridge at “Cross Guns;” near Glasnevin; *A. G. M.*—6. Margins of a pool of water on the “Hunting Course” field, west of Castle Taylor, Galway; *A. G. M.*

This is more nearly allied to *E. variegatum* than to any other of the previous sub-species, and continues erect when cultivated in garden soil. In the wild state it grows in shallow water. The stems are more slender and the sheaths marked with much less black than in *E. trachyodon*. The teeth of the sheath are shorter, blunter, and more persistent.

*E. variegatum* (Schleich.)

Districts - - - - 5 - - - 9 - - 12

Sand-hills on the sea-coast, in damp places; local.—5. On the sand-hills at Portmarnock (*Flor. Hib.*) and at Portrane, Dublin; *D. M.*—9. Sand-hills at Mullaghmore, to the north of Ben Bulbin, Sligo (growing with *Draba incana* and *Viola Curtisii*); *D. M.*—12. Sandhills at Benone, Magilligan, Derry; *D. M.*

This is always decumbent, and continues the same habit when cultivated. It seems nearly as distinct from *E. Wilsoni* as the three first sub-species are from each other.

## ORDER LXXXIII.—FILICES.\*

## CRYPTOGRAMME R. Br.

1. *C. crispa* (R. Br.)—*Parsley Fern*.

*Allosorus crispus* (Bernh.) *Pteris crispa* (Linn.)

Districts - - - - 5 - - - - 10 - 12

Lat. 54°–55°. East and North-east of Ireland.

Type in Great Britain, Highland.

Stony places on mountains; very rare. *Fl.* July to Sept.

5. On the Carlingford mountains, Louth; *Newman*, Ed. 3, and *Moore*, *Nat. Pr.*—10. On the east side of Caulteach Mountain, near Florencecourt, sparingly; *Mr. John M'Donald*.—12. Plentiful on the Mourne mountains; *Mackay Cat. Ir.* Near the top of Slieve Bingham; *Newman*, Ed. 3. Kilkeel, Down; *Flor. Ulst.* (probably local on this range). Between Carrickfergus and Larne; and on the north side of Knocklayd, Antrim; *D. M.* On Clontygearagh mountain, the only locality noticed in Derry; *D. M.* On the Cave Hill, near Belfast (probably planted); *Mr. D. Orr*. The localities of Rathfarnham and Dalkey, near Dublin; and

\* Those who wish to study the numerous varieties of this beautiful tribe, will find them fully noticed, with many figures, in *Mr. T. Moore's "Nature-printed British Ferns,"* also in his *Handbook*. *Mr. E. Newman's* various editions are valuable for the large amount of well-arranged information which they contain. *Sir W. Hooker's* work on *British Ferns* should also be consulted.

Ballinahinch, Connemara, given by *Wade*, are probably erroneous; and we fear that a mistake was also made as to the station near Ballyclare, given in *Flor. Ulst.*; the locality of Black Head, Clare (*Moore, Nat. Pr.*), also requires confirmation. Mr. F. J. Foot did not meet with the "Parsley Fern" in Burren.

Ranges from 1000 feet in Derry to 2400 on Slieve Bingian.

*POLYPODIUM* Linn.

1. *P. vulgare* (Linn.).—*Polypody*.

*Ctenopteris vulgaris* (Newman).

Districts 1 2 3 4 5 6 7 8 9 10 11 12

Lat. 53°–56°. Throughout Ireland.

Type in Great Britain, British.

Banks, rocks, walls, and trunks of trees; frequent. *Fl.* July to September.

*P. cambricum* (Linn.), and other allied forms, have been observed in various parts of the country, especially in Kerry, Clare, and Wicklow.

Ranges from sea-level to 1800 feet (*Kinahan*).

2. *P. Phegopteris* (Linn.).—*Beech Fern*.

*Gymnocarpium Phegopteris* (Newman).

Districts 1 - - 4 5 6 - 8 9 10 11 12

Lat. 51°–56°. West, North, and East of Ireland.

Type in Great Britain, Scottish, inclining to British.

Moist shady places, especially near waterfalls; local and rather rare. *Fl.* July to September.

1. Mucruss and Killarney, but rare; *D. M.* On Turk mountain and about Killarney; *Kinahan, Newman, &c.* In the pass of Keim-an-Eigh, and on Hungry Hill, Cork; *Mr. T. Wright*.—4. At Powerscourt Waterfall, sparingly; *Flor. Hib.* (now become very scarce). Near Maulin mountain, Wicklow; *Mr. W. Archer*.—5. In shady places on Carlingford mountain, Louth; *Wade Rar.*—6. East flank of Slieve Callan, Clare; *Mr. F. J. Foot*. In Glendree, south-west of Slieve Aughta; *Mr. G. H. Kinahan*.—8. On Garoom mountain, near Letterfrack; *Newman, Ed. 3.* Near Oughterard; *Mr. G. H. Kinahan*. Near Tourmakady, west of Lough Mask; *Miss*

*K. M. Lindsey*. In Brachloon Wood, near Westport; *Miss Knox Gore*.—9. On Glenade mountain, Leitrim, but very rare; *the late Mr. J. Wynne*.—10. In county Fermanagh; *Professor R. W. Smith*.—11. Near Killybegs, Donegal, sparingly in two or three places only; *A. G. M. Barnesmore*; *Admiral Jones*. On Muckish mountain! *Mr. C. Moore*. Waterfall above Lough Eske! *Flor. Hib.*—12. On Slieve Bingian; on rough ground two miles south of Slieve Croob; on the Black Mountain, above Tollymore Park; *Newman*, Ed. 3. By the Glenarve river, near Cushendall, Antrim; and in Ness Glen, Derry; *Flor. Ulst.* In several of the glens between Cushendall and Glenarm, Antrim; *D. M.*

Ranges from about 50 feet to 1500 feet.

### 3. *P. Dryopteris* (Linn.)—Oak Fern.

*Gymnocarpium Dryopteris* (Newman).

Districts 1? - - - - - 8? 9 - - 12

Lat. 51° or 54°–56°. North of Ireland.

Type in Great Britain, Scottish.

Stony and rocky places on mountains; very rare. *Fl.* July to September.

1? On the stony parts of Turk Mountain, Killarney; *Wade Rar.*, *Mackay Cat. Ir.*, and *Flor. Hib.* Mucruss, Killarney; *Moore, Nat. Pr.*—8? Among rocks at the fall of Mam Turk, Connemara; *Wade Rar. Mackay Cat. Ir.*, and *Flor. Hib.*—9. On Benbo mountain, near Manor-Hamilton, in Leitrim! at 800 feet above the sea; *the late Mr. J. Wynne*.—12. At the foot of the Mourne mountains, near Tollamore Park; *Mackay Cat. Ir.* (perhaps *P. Phegopteris*). On the north side of Knocklayd mountain, Antrim (sparingly); *D. M.* The locality of "Tullamore, King's-county," given in Moore's "*Nature-printed Ferns*," is probably identical with that of Tollamore Park, Down. We fear that the stations in districts 1 and 8 belong to *P. Phegopteris*.

At about 1800 feet on Knocklayd; *D. M.*

*Obs.*—It is remarkable that *P. Robertianum* (Hoffm.) has not been observed in any of the rocky limestone districts so frequent in Ireland, and which seem admirably fitted for its growth.



## LASTREA Presl.

1. **L. Thelypteris** (Presl.)—*Marsh Fern.*

*Hemestheum Thel.* (Newman), *Aspidium Thel.* (Sw.) Brit. Flor.  
 Districts 1 - - - 5 6 7 8 - 10 11 12  
 Lat. 51°-55°. West, Centre, and North of Ireland.

Type in Great Britain, English, inclining to Germanic.

Marshy and boggy places; local and rare. *Fl.* July to Sept.

1. Killarney; *C. C. B.* In marshy ground between Mucruss House and the mines; *Mackay Cat. Ir.* Ross Island, Killarney; *D. M.*—5. In a boggy field near Castle Kelly, Dublin; *Mr. D. Orr.*—6. By the river Fergus, a little above the bridge at Ennis, Clare; *Wade Rar.* In a wet hollow on the "hunting course" field at Castle Taylor, Galway; *A. G. M.* In a boggy wood in the demesne at Portumna; *D. M.*—7. Bog of Lislogher! West-Meath; *Miss E. Reynell*—8. On the shore of Lough Carra, Mayo, near Moore Hall; *Mr. J. Ball.*—10. Near Belturbet, Cavan; *D. M.*—11. On the banks of the Erne, a little way above Ballyshannon; *A. G. M.*—12. Banks of "Six-mile water" at Ballyclare; *Flor. Ulst.* Plentiful in Portmore Park, by the side of Lough Neagh, Antrim; *D. M.*

2. **L. Oreopteris** (Presl.)—*Sweet Mountain Fern.*

*Aspidium Oreopt* (Sw.) Brit. Flor., *Lastrea montana* (Newman.)  
 Districts 1 2 - 4 5 6 - 8 9 10 11 12  
 Lat. 51°-56. From South to North of Ireland, sparsely.

Type in Great Britain, British.

Heaths, moors, mountains; local and rather rare. *Fl.* July to September.

Chiefly in mountainous districts, and less frequent in Ireland than in Great Britain. Rare in the South (Mr. Carroll mentions Hungry Hill only.) Rare also in the centre and east of Ireland, and rather a scarce species generally.

3. **L. Filix-mas** (Presl.)—*Male Fern.*

*Dryopteris Filix-mas* (Newman), *Aspidium Filix-mas* (Sw.)  
 Brit. Flor., *Aspidium cristatum* var. *Bentham.*

Districts 1 2 3 4 5 6 7 8 9 10 11 12  
 Lat. 51°-56°. Throughout Ireland.

Type in Great Britain, British.

Woods, banks, heaths, &c.; common. *Fl.* July to September.

An abundant species. The variety "*Borreri*," known by its blunt and squareish pinnules, and the numerous ruddy scales of the stipes, is frequent on heaths and open banks. In woods and shady glens, the pinnules are much broader and variously cut, so as in some cases to resemble narrow forms of *L. spinulosa*. The variety "*abbreviata*" appears to be rare in Ireland, and is simply a dwarf form occurring in mountainous situations.

#### 4. *L. spinulosa* (Presl.)—*Lesser Broad-Fern*.

*Lophodium spinosum* (Newman), *Aspidium spinulosum* (Willd.),  
*Aspidium dilatatum* var. Brit. Flor.

Districts 1 2 - 4 - 6 7 8 9 10 11? 12

Lat. 51°-56°. From South to North of Ireland, sparsely.

Type in Great Britain, English, inclining to British.

Woods and shady banks, and on the side of bog drains; rare. *Fl.* July to September.

1. Killarney; *Moore Nat. Pr.* Cahirciveen; *Kinahan*.—  
2. Curraghmore, Portlaw, Waterford; *Kinahan*.—4. Wicklow;  
*Moore Nat. Pr.* and *D.M.*—6. Near Birr, in Tipperary;  
*Kinahan*.—7. Ladiston, Mullingar! *D. M.*—8. Connemara;  
*Moore Nat. Pr.* Drumman Wood, near Lough Cullin, Mayo;  
*A. G. M.*—9. Hollymount, Mayo, sparingly; *A. G. M.*  
Hazlewood, but rare; *the late Mr. J. Wynne*.—10. Dartrey,  
Monaghan; *Newman*.—11? Glen Columbkil, &c.; *Flor.*  
*Ulst.* (Not found in Donegal by *A. G. M.*)—12. Dungiven,  
&c., Derry; *D. M.*

#### 5. *L. dilatata* (Presl.)—*Broad Fern*.

*Lophodium multiflorum* (Newman), *Aspidium dilatatum* (Sw.)  
Brit. Flor., *Aspidium spinulosum* var. Bentham.

Districts 1 2 3 4 5 6 7 8 9 10 11 12

Lat. 51°-56° Throughout Ireland.

Type in Great Britain, British.

Heaths, and boggy places, woods, banks, mountains, &c.; common. *Fl.* July to September

Several varieties have been distinguished, but they do not seem sufficiently important to deserve place in a work like the present. *L. dilatata* is best distinguished from *L. spinulosa* by the long tapering scales of the stipes; these scales are usually, but not always, dark in the centre. Some of the forms come very near to *L. spinulosa*, others are difficult to separate from *L. æmula*.

Ranges from sea-level to 2000 feet on the mountains.

6. *L. æmula* (Brack.)—*Bree's Broad-Fern*.

*Lophodium Fæniseeii* (Newman) *Lastrea Fæniseeii* (Wats), *Aspidium dilatatum* var. Brit. Flor., *A. spinulosum* var. Bentham.

Districts 1 2 3 4 5 6 7 8 9 10 11 12

Lat. 51°–56°. From South to North of Ireland.

Type in Great Britain, Atlantic, inclining to British.

Woods, banks, and heathy places; locally abundant. *Fl.* July to September.

Much more frequent in the west, being plentiful in many parts of districts 1, 2, 6, 8, 9 and 11.

Scarce and very local on the east side of Ireland.

This is one of the plants most characteristic of the west of Ireland. In some of the shady thickets around Lough Corrib and about Killarney *L. æmula* may be seen to perfection, attaining a height of nearly three feet.

*Obs.*—*Lastrea cristata* (Presl.) included in "*Flora Hibernica*" at a time when the true plant was imperfectly known, was probably either *L. spinulosa* or *L. dilatata*. Miss Grubb has not succeeded in finding *L. cristata* near Clonmel.

[*Lastrea rigida* (Presl.) was no doubt planted on the clay-slate wall at Töwnley Hall, near Drogheda; where it has been gathered by several collectors.]

### POLYSTICHUM Roth.

1. *P. Lonchitis* (Roth)—*Holly Fern*.

*Aspidium Lonchitis* (Sw.) Brit. Flor. and Bentham.

Districts 1 - - - - (7) - 9 (10) 11 -

Lat. 51°–55°. West and North-west of Ireland.

Type in Great Britain, Highland.

Rocky places on mountains; very local. *Fl.* August to Oct.

1. Moist rocks in "Horses' Glen," Mangerton; *I. C.* On Brandon mountain, Kerry; *D. M.*—(7.) A single root near Edgeworthstown, Longford; *Mr. Edgeworth*.—9. On Ben Bulben! and other mountains in Sligo; and on Glenade mountain, Leitrim; *Prof. E. Murphy*. In Sligo and Leitrim, but rare; *Mr. J. Wynne*—(10.) A single root on a hedgebank near Dungannon, Tyrone! *Rev. H. Stokes*.—11. In a glen east of Lough Eske, Donegal; *Prof. E. Murphy*. Rosses and Fanet; *D. M.*

The two isolated plants found in Tyrone and Longford, at an unusually low elevation, had probably sprung from spores wafted from the Ben Bulben group of mountains; and as their occurrence in the lowlands seems quite exceptional, we have included these districts within brackets, although there is no doubt as to the species. We fear, however, to trust the locality of "Navan in Meath," which is given in Moore's Nature-printed British Ferns. And although *P. Lonchitis*, as well as *Cryptogramme crispa*, is reported from Black Head, Clare, we prefer to leave this locality for future confirmation.

Ranges from about 120 feet in Tyrone to 2500 on Brandon.

2. *P. aculeatum* (Roth)—*Stiff Prickly Fern*.

*Aspidium aculeatum* and *Aspidium lobatum* of many authors.

Districts 1 2 - 4 5 6 7 8 9 10 11 12  
Lat. 51°-56°. From South to North of Ireland.

Type in Great Britain, British.

Banks and stony places; rather local, and not common.  
*Fl.* July to October.

Far less frequent in Ireland than *P. angulare*. The form *A. lobatum* (Smith) is rare. The variety or form *lonchitidoides* is recorded as having been found by Mr. F. J. Foot in Clare and at Aughrim, Galway.

3. *P. angulare* (Newman.)—*Soft Prickly Fern*.

*Aspidium angulare* (Willd.), Brit. Flor., *A. aculeatum* var. Bentham.

Districts 1 2 3 4 5 6 7 8 9 10 11 12  
Lat. 51°-56°. Throughout Ireland

Type in Great Britain, English.

Banks, woods, thickets, &c.; frequent. *Fl.* July to Oct.

Abundant in many parts of the west and south of Ireland. General in Ulster (*Flor. Ulst.*), and, though less frequent in the eastern districts, is, no doubt, to be found in every county.

*CYSTOPTERIS* Bernh.

1. *C. fragilis* (Bernh.)—*Brittle Fern.*

Districts 1 2 - 4 5? 6 7 8 9 10 11 12

Lat. 51°-56°. From South to North of Ireland.

Type in Great Britain, British, inclining to Highland.

Rocky and stony places, especially on a limestone soil; local. *Fl.* July to October.

1 and 2. On the mountains of Kerry and Tipperary, but very rare in Cork; *I. C.*—4. Near Maulin mountain, Wicklow; *Mr. W. Archer.*—5? On the Dublin mountains, near Tallaght hill; *Wade Rar.* (not found there recently).—6. Abundant on the limestone in Burren and in part of Galway; *A. G. M.*—7. Near Ballymore, Westmeath; *Mr. F. J. Foot.*—8. Connemara; *Moore Nat. Pr.*—9. Frequent in this district, especially about Ben Bulbin; *D. M.*—10. Dart mountain, Tyrone; *Admiral Jones.* Anketell Grove, Monaghan; *Miss Maffett.*—12. Local in Ulster, but occurs in several places in Derry and Antrim; *D. M.*

*Var. β dentata* (*C. dentata*, Smith).

1. Top of Brandon, Kerry; *Rev. W. M. Hind.*—9. On Ben Bulbin, a 1200 feet; *Flor. Ulst.*—10.? In Roscommon; *Mr. F. J. Foot.*—11. In Donegal; *Flor. Ulst.*—12. Woodburn Glen, near Carrickfergus; *Flor. Ulst.*

The variety *dentata* occurs principally in mountainous situations, and is less frequent than the normal form. A plant resembling *C. Dickieana* (Sim) was found by Mr. P. M'Ardle on the coast near Dunganstown, Wicklow.

*ATHYRIUM* Roth.

1. *A. Filix-fœmina* (Roth.)—*Lady Fern.*

*Asplenium Filix-fœmina* (Bernh.), Brit. Flor.

District 1 2 3 4 5 6 7 8 9 10 11 12

Lat. 51°-56°. Throughout Ireland.

Type in Great Britain, British.

Moors, heaths, and boggy places; common. *Fl.* July to Sept.

A very variable, but well-marked species; there is seldom any difficulty in identifying the different forms, and we think they are scarcely worth naming, except as gardener's varieties for cultivation. Miss Knox Gore has shown us an interesting series of the different forms collected in the north-west of Mayo.

*ASPLENIUM* Linn.

1. *A. lanceolatum* (Huds.)—*Hudson's Spleenwort*.

District 1 - - - - -

Lat. 51°-52°. South of Ireland—Cork only.

Type in Great Britain, Atlantic.

Rocky places; very local and rare. *Fl.* July to October.

1. Near Kinsale, Cork; *Mr. Joseph Woods*. On both sides of the town of Kinsale; *I. C.*

2. *A. Adiantum-nigrum* (Linn.)—*Black Spleenwort*.

Districts 1 2 3 4 5 6 7 8 9 10 11 12

Lat. 51°-56°. Throughout Ireland.

Type in Great Britain, British.

Rocks, walls, banks; frequent. *Fl.* July to October.

The fronds are sometimes prettily variegated with white, or whitish-yellow.

*A. acutum* (Bory.)

Districts 1 2 - 4 - - - - - 12

1. Several localities in Kerry—Mucruss; *Flor. Hib.* Cahir Conree mountain, near Tralee; *Mr. W. Andrews*. Turk mountain; *Kinahan*. Purple Mountain; *Mr. G. H. Kinahan*. Foot of Cromaglaun; above Blackstones; Glouin Caragh; Inveragh; *Moore Nat. Pr.* Near Garry-cloyne, Blarney, Cork; *Moore Nat. Pr.* Innishannon, Cork; *Mr. T. Chandlee*.—2. Aghada, Cork; *I. C.*—4. Dunran Wood, near Newtownmount-Kennedy, Wicklow; *Mr. D. Orr*.—12. On the mountains of Mourn, in the County of Down (Mr. Sherard); *Raii Synopsis (Felix minor longifolia, &c.)*

3. *A. Trichomanes* (Linn.)—*Black Maiden-hair*.

Districts 1 2 3 4 5 6 7 8 9 10 11 12

Lat. 51°-56°. Throughout Ireland.

Type in Great Britain, British.

Rocks, walls, banks; frequent, but rather local. *Fl.* July to October.

*Var. β incisum.*

10. Near Florence-court, Fermanagh! *Mr. John M'Donald.* The frond sent by Mr. M'Donald agrees almost exactly with the figure in "Newman's British Ferns," Ed. 3, p. 352. Some specimens gathered by ourselves in Clare have their pinnules slightly serrated.

We suspect that the supposed "*Asplenium Petrarchæ*," said to have been found at Flurry-bridge, Louth, will prove to be a form of *A. Trichomanes*.

4. *A. viride* (Huds.)—*Green-stalked Spleenwort.*

Districts 1 2 - - - - 8 9 - 11 -

Lat. 51°-55°. West of Ireland.

Type in Great Britain, Highland.

Rocky places on mountains; local. *Fl.* July to October.

1. About Killarney; Dunkerron; and near Blackstones; *Smith's "Kerry"* (No. 101.) Turk mountain, Killarney; *Flor. Hib.* On Mangerton; on M'Gilycuddy's Reeks; and on Brandon mountain; *I. C.* On the Iveragh mountains Kerry; *D. M.* On Hungry Hill, Cork (sparingly); *Drummond.*—2. Abundant on Galtymore, Tipperary; *D. M.*—8. On Ben Lettery, Connemara; *I. C.*—9. On Ben Bulben, Sligo; *Flor. Hib.* In both Sligo and Leitrim; *Mr. J. Wynne.* Glenade, Leitrim; *Admiral Jones.* On Ben Bulben from 1100 feet (chiefly the form "*incisum*" of Moore); *Flor. Ulst.* On Kesh Corran, Sligo, but scarce; *Mr. F. J. Foot.*—11. On mountains near Lough Eske, Donegal; *Prof. E. Murphy.*

Ranges to 2,000 feet on Galtymore.

5. *A. marinum* (Linn.)—*Sea Spleenwort.*

Districts 1 2 - 4 5 6 - 8 9 10 11 12

Lat. 51°-56°. Coasts of all Ireland.

Type in Great Britain, British, inclining to Atlantic.

Rocks and caves near the sea; frequent. *Fl.* July to October.

Occurs occasionally at some distance inland, as about the

Lakes of Killarney. Mr. Moore gives also Clonmel and Cavan as localities. Sometimes the pinnules are notched or cut, especially in luxuriant specimens.

Ranges from near sea-level to 500 feet in Kerry (*Kinahane*.)

6. **A. Ruta-muraria** (Linn.)—*Wall Rue*.

Districts 1 2 3 4 5 6 7 8 9 10 11 12

Lat. 51°–56°. Throughout Ireland.

Type in Great Britain, British.

Calcareous rocks, and walls; frequent. *Fl.* July to October.

This, like *A. Trichomanes*, *Ceterach officinarum*, and *Cystopteris fragilis*, is abundant in the limestone districts of Sligo, Galway, and Clare.

*SCOLOPENDRIUM* Sm.

1. **S. vulgare** (Sm.)—*Hart's-tongue*.

*Phyllitis Scolopendrium* (Newman.)

Districts 1 2 3 4 5 6 7 8 9 10 11 12

Lat. 51°–56°. Throughout Ireland.

Type in Great Britain, British.

Banks, and damp shady places; frequent. *Fl.* July to October.

Many varieties occur, which will be found fully noticed by Moore and Newman.

*CETERACH* Willd.

1. **C. officinarum** (Willd.)—*Scaly Fern*.

*Grammitis Ceterach* (Swartz), *Notolepeum Ceterach* (Newman).

Districts 1 2 3 4 5 6 7 8 9 10 11 12

Lat. 51°–56°. Throughout Ireland.

Type in Great Britain, English.

Calcareous rocks and walls; frequent, but local. *Fl.* July to October.

Far more abundant in the west. Plentiful in Clare and Galway, where the pinnules are frequently notched or crenate; another form with the pinnules notched and also overlapping (as in *P. Lonchitis*) was found in Burren by *A. G. M.*



*BLECHNUM* Linn.1. *B. boreale* (Sw.)—*Hard-Fern.**Blechnum Spicant* (Willd.) Bentham, Newman, &c.

Districts 1 2 3 4 5 6 7 8 9 10 11 12

Lat. 51°–56°. Throughout Ireland.

Type in Great Britain, British.

Boggy and heathy places; frequent. *Fl.* July to October.

Common, except upon pure limestone.

*PTERIS* Linn.1. *P. aquilina* (Linn.)—*Common Brake.*

Districts 1 2 3 4 5 6 7 8 9 10 11 12

Lat. 51°–56°. Throughout Ireland.

Type in Great Britain, British.

Heaths and woods; common. *Fl.* July to October.

Ranges from sea-level to about 1400 feet.

*ADIANTUM* Linn.1. *A. Capillus-Veneris* (Linn.)—*Maiden-hair.*

Districts 1 - - - - 6 - 8 9 - - 12?

Lat. 52°–55° or 56°. West (and perhaps North) of Ireland.

Type in Great Britain, British.

Moist rocky places, chiefly on the coast; very local. *Fl.* July to October.

1. On the Cahir-Conree range, between Tralee and Dingle, Kerry, at a considerable elevation; *Mr. W. Andrews.*—6. Plentiful in the Isle of Arran, near Galway; *Lhwyl* (previous to 1699). Plentiful in the rocky mountains of Burrin, whence it was brought to Dublin for sale (in 1735); *K'Eogh.* At Poulsallagh; at Black Head; and in several localities near Ballyvaughan, Clare; *Mr. F. J. Foot.* On the coal-measures formation near Lisdoonvarna, Clare; *Rev. T. Warren.* Abundant on the coast of Clare and on the Isles of Arran.—8. At Lough Bulard, near Urrisbeg, Connemara; *the late Mr. L. Ogilby* and *C. C. B.*—9. At Glencar, Leitrim, on limestone rocks 300 feet above the sea; also in Sligo, within four miles of the town of Sligo; *Mr. J. Wynne.*—12? Reported to have been found in a cave near the Giants' Causeway, Antrim; *M<sup>r</sup>. Tyerman.*

The plant of Burren and Arran is more luxuriant, and has pinnules more deeply cut than in the ordinary state of the species; this, however, is no more than might be expected from what has been already noticed of other ferns occurring on the west coast of Ireland.

Ranges from near sea-level to 800 feet in Clare, and probably higher on Cahir Conree. The *Maiden-hair* may be expected to occur on the coast of Kerry and South Cork.

*TRICHOMANES* Linn.

1. *T. radicans* (Sw.)—*Bristle-Fern*.

Districts 1 2 - 4 - 6 - - - - -  
Lat. 51°-53°. South and South-west of Ireland.

Type in Great Britain, Atlantic.

Wet shady rocks and banks; very local. *Fl.* August to October.

1. In several places in Kerry and South Cork.—Valentia (perhaps introduced; *Kinahan*); Waterville; Turk mountain, &c., near Killarney; Kenmare; Glouin (or Glen) Caragh; near Derriana Lake and Lough Carragh; Dingle; Mount Eagle; near Bantry, Bandon, &c. Templemichael Glen; *Mr. D. Murray* and *I. C.* On the Glashgariff river, Cork; *Drummond*.—2. Near Blarney; *I. C.* Near the summit of Carrigeena, Kildorrery, north of Cork; *I. C.* Glenbower Wood, near Cork; Glendine Wood, Waterford; *I. C.* In the valley of the Blackwater, Waterford; *Kinahan*.—4. Sparingly at Powerscourt Waterfall; and a few plants in Hermitage Glen, Wicklow; *Flor. Hib.* (not found lately).—6. Cumailta mountains; *Moore Nat. Pr.* Glenstal, Barrington's Bridge, near the Keeper mountain, Limerick; *Mr. G. A. Pollock*. On the banks of the Clare river, three miles south of Newport, Tipperary; *Mr. G. H. Kinahan* (this station may extend to district 7).

*Var. β Andrewsii* (Newman).

1. At Blackstones in Glouin Caragh, Kerry; *Mr. W. Andrews*. Near Killarney; spec. seen by *I. C.*

Ranges from about sea-level to 1000 feet on Carrigeena.

## HYMENOPHYLLUM Sm.

1. *H. tunbrigense* (Sm.)—*Tunbridge Filmy-Fern.*

Districts 1 2 3 - - - 7 8 9 - 11 12

Lat. 51°-55°. West of Ireland chiefly.

Type in Great Britain, Atlantic.

Damp shady rocks, mossy trunks of trees, &c.; local and rather rare. *Fl.* July to October.

Abundant in some parts of Kerry. Occurs in Cork, Waterford, Tipperary, Kilkenny, (at Woodstock; *Rev. S. Madden*). Limerick, Clare, Longford, Galway, Sligo, Leitrim, Donegal, Down (Mourne mountains). Rare in the east, centre, and north of Ireland. We believe that the localities given for *H. tunbrigense* in Wicklow and Dublin belong to *H. Wilsoni*.

2. *H. Wilsoni* (Hook.)—*Wilson's Filmy-Fern.*

*H. unilaterale* (Willd.), *H. tunbrigense* var. Benth.

Districts 1 2 - 4 5 - - 8 9 10 11 12

Lat. 51°-56°. From South to North of Ireland.

Type in Great Britain, Atlantic, inclining to Highland.

Moist rocky places, and on mossy trunks of trees; frequent in the mountainous districts. *Fl.* July to October.

Not a common species, but much more frequent in Ireland than *H. tunbrigense*. Especially abundant on the mountains of the west and north.

## OSMUNDA Linn.

1. *O. regalis* (Linn.)—*Royal Fern.*

Districts 1 2 3 4 5 6 7 8 9 10 11 12

Lat. 51°-56°. Throughout nearly all Ireland.

Type in Great Britain, British.

Boggy and heathy places; frequent. *Fl.* July to September.

Plentiful in the west, from Cork to Donegal, but avoids limestone. Less frequent in the midland counties; and becomes rare on the eastern side of Ireland.

*BOTRYCHIUM* Sw.1. *B. Lunaria* (Sw.)—*Moon-wort*.

Districts 1 2 3 4 5 6 7 8 9 10 11 12  
 Lat. 51°–56°. Throughout Ireland, sparsely.

Type in Great Britain, British.

Grassy places, on short pastures and heaths; not unfrequent. *Fl.* May to July.

Probably occurs in every county, but is liable to escape observation. Plentiful in some of the limestone pastures of Galway and Clare.

*OPHIOGLOSSUM* Linn.1. *O. vulgatum* (Linn.)—*Adder's-tongue*.

Districts 1 2 3 4 5 6 7 8 9 10 - 12  
 Lat. 51°–56°. Throughout Ireland.

Type in Great Britain, British.

Damp and boggy pastures; frequent. *Fl.* June, July.

This, like *Botrychium*, is often passed over. *O. lusitanicum* (Linn.) should be sought on the south-west coast of Ireland. It flowers very early in the year.

## ORDER LXXXIV.—MARSILEACEÆ.

*PILULARIA* Linn.1. *P. globulifera* (Linn.)—*Pill-wort*.

Districts - - - - - 8 - - - 12  
 Lat. 53°–56°. West and North-east of Ireland.

Type in Great Britain, British.

In shallow water, and on marshy ground; very rare. *Fl.* June to August.

8. Near the salmon leap at Ballinahinch, Connemara; *Wade Rar.* Between Letterfrack and Kylemore, sparingly (Mr. H. Seebohm); *I. C.*—12. Abundant in marshy ground about two miles from the mouth of the Blackwater, near Lough Neagh; *Flor. Hib.* By the river Bann, below Jackson Hall, near Coleraine, Derry; *D. M.* In stagnant pools by the river Lagan, near Belfast; *Mr. D. Orr.* Selchin Harbour, Lough Neagh; *Flor. Ulst.*

## ORDER LXXXV.—LYCOPODIACEÆ.

## ISOETES Linn.

1. *I. lacustris* (Linn.)—*Quill-wort*.

Districts 1 - - 4 - - - 8 - 10 11 12

Lat. 51°-56°. From South to North of Ireland.

Type in Great Britain, Highland.

In shallow water, on the margins of lakes, chiefly in mountainous districts; frequent. *Fl.* June to September.

Frequent in the west and north of Ireland. Occurs in Kerry, Cork, Wicklow, Galway, Monaghan, Tyrone, Armagh, Donegal, Derry, Antrim, and probably in some other counties.

*I. echinospora* (Dur.)

District 1 - - - - - - - - - - - - - - -

Rare. 1. Lakes near the Gap of Dunloe, Killarney; and in the upper lake of Killarney, near Glenagh Cottage; *D. M.* Our specimens have been examined by Alexander Braun, who refers them without any doubt to *I. echinospora*, although the Kerry plant is much larger than that found in Caernarvonshire by Prof. C. C. Babington.

## LYCOPODIUM Linn.

1. *L. clavatum* (Linn.)—*Common Club-moss*.

Districts 1 2 - 4 5 - - 8 9 10 11 12

Lat. 51°-56°. From South to North of Ireland, sparsely.

Type in Great Britain, British.

Heaths, moors, and mountains; local. *Fl.* July to October.

By no means a common plant in Ireland. "Plentiful in the southern baronies of Kerry;" *Smith*, but rare in the south and south-west. Is reported from South and North Cork, Tipperary, Waterford, Wicklow, Dublin, Connemara, Sligo (rare), Tyrone, Donegal, Derry, and Antrim.

2. *L. alpinum* (Linn.)—*Mountain Club-moss*.

Districts 1 - - - 5 - - 8 9 10 11 12

Lat. 51°-56°. From South to North of Ireland.

Type in Great Britain, Highland.

Grassy places on mountains; local and rather rare. *Fl.* July to October.

1. On Mangerton, Kerry; *Flor. Hib.*—5. On Feather-bed mountain, above Kilkee, Dublin; *Mr. D. Orr.*—8. On Lettery mountain; and on Mam Turk, Connemara; *Wade Gallovid.*—9. On mountains of Sligo, but rare; *Mr. J. Wynne.*—10. On Aghla, Tyrone; *Admiral Jones.*—11. Barnesmore mountains, Donegal; *Prof. E. Murphy.* On Muckish; *Flor. Ulst.*—12. On Dart; and on north side of Slieve Gullion, Derry; *D. M.* On the mountain above White-Rock, near Belfast (sparingly); *Mr. D. Orr.* On Divis mountain; and on Black mountain near Belfast; *Flor. Ulst.* On Knocklayd and Slieve Nanee, Antrim; *D. M.*

3. **L. Selago** (Linn.)—*Fir Club-moss.*

Districts 1 2 - 4 5 - 7 8 9 10 11 12  
 Lat. 51°-56°. Throughout Ireland.

Type in Great Britain, British, inclining to Highland.

Heaths, moors, mountains, and dry bogs; frequent. *Fl.* July to October.

Abundant on many of the mountains, and though less frequent at low elevations, is also widely distributed in the lowland districts.

Ranges from sea-level to 3000 feet.

4. **L. inundatum** (Linn.)—*Marsh Club-moss.*

District - - - - - 8 - - - -  
 Lat. 53°-54°. West of Ireland—Connemara only.

Type in Great Britain, British, inclining to English.

Moist peaty places; very rare. *Fl.* July to October.

8. In turfy ditches along the public road between Oughterard and "the Recess;" *Wade Gallovid* (1802). On the borders of a small lake near Letterfrack, Connemara! *Mr. H. Seebohm.*

5. **L. selaginoides** (Linn.)—*Little Prickly Club-moss.*

Districts 1 - - 4 5 6 7 8 9 10 11 12  
 Lat. 51°-56°. Throughout nearly all Ireland.

Type in Great Britain, Highland.

Moist places on mountains, heaths, bogs, and by the sides of lakes; frequent. *Fl.* June to August.

Rare in the south, but frequent in the west, middle, and north of Ireland. Common on the pastures and about the "turloughs" and lakes of Galway and Mayo, and not rare in the midland counties, at quite low elevations. It grows also on sand-hills by the sea in Dublin and Derry.

Ranges from sea-level in Galway to 2000 feet.

## ADDENDA ET CORRIGENDA.

Page 69, add

\* *M. sativa* (Linn.)—*Lucerne*.

District - - - - 5 - - - - -  
 5. Plentiful at Portmarnock! *Flor. Hib.* Well established on the sand-hills near Rush, Dublin; *D. M.*

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Instead of *Crepis biennis* (Linn.), read *Crepis taraxacifolia* (Thuil). Having recently examined ripe fruit in specimens collected at Baldoyle, Howth, and Killiney, we have ascertained that the plant given under the name of *Crepis biennis* belongs really to *C. taraxacifolia*.

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Besides the two species mentioned, *Astragalus Hypoglottis*, *Orchis pyramidalis*, and *Bromus erectus*, should have been quoted as Germanic type plants, reaching the west of Ireland.

# APPENDIX.

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## I.—SMITH'S PLANTS.

MANY of the plants mentioned by Dr. Smith in his Histories of Kerry, Cork, and Waterford, have not been verified by any other botanist. Some of the names are, no doubt, erroneous; but, as several of these are interesting and conspicuous species, it seems desirable to include in one list all the plants which have not been observed recently. The numerals are those employed by Dr. Smith himself.

### 1. PLANTS STATED BY SMITH TO GROW IN KERRY.

2. *Artemisia campestris*.—In a field near Castle Island.
6. *Cryptogramme crispa*.—On most of the mountains in the southern baronies.
8. *Libanotis montana*.—Rocky hills in the barony of Dunkerron. (Probably some form of *Pimpinella Saxifraga*.)
10. *Astragalus Hypoglottis*.—Mountains round Killarney Lough.
16. *Draba muralis*.—Mountains round the southern part of Lough Lane. (Probably *D. incana*.)
17. An *Arabis* or *Cardamine bellidifolia*.—Islands of Lough Lane. (Probably *Sisymbrium thalianum*.)
18. *Dryas octopetala*.—Hills near the passage into Upper Lake of Killarney. (Noticed also in Kerry by Lhwyd.)
19. *Cineraria palustris*.—In the barony of Clanmaurice, near Lixnaw, in several ditches.
27. *Mertensia maritima*.—Beach near Beal Castle.
31. *Dabeocia* (confounded with *Myrica*).—Common on the mountains. No doubt an error.
42. *Diotis maritima*.—Strand at Ballyheigh.
46. *Paris quadrifolia*.—In the wood near Ross Castle, near the lake. (Often sought, but not yet re-discovered.)
48. *Herniaria* sp.—Near the mouth of the river of Kenmare (probably some form of *Polygonum aviculare*.)
51. *Cineraria (Senecio) campestris*.—On the side of Knockanore mountain, not far from Fell's Spa, in the barony of Iraghticonnor (possibly some *Hieracium*), but *C. campestris* should be looked for early in the year.
61. *Convallaria majalis*.—In the island of Inisfallen, near Lough Lane, and in the woods round the lake. (This should be easily re-discovered. No species of *Convallaria* is certainly known in Ireland.)



64. *Silene acaulis*.—On the rocky mountains in Dunkerron, near Blackstones.
70. *Lysimachia Nummularia*.—Common in marshes. (Probably *Anagallis tenella*.)
76. *Peucedanum*.—Ballyheigh Bay. (Probably *Ænanthe Lachenalii*.)
86. *Ruscus aculeatus*.—Near Mucruss, and in the islands of Lough Lane.
87. *Juniperus Sabina*.—Islands in Lough Lane. (Probably *Juniperus communis*, or the var. *nana*.)
89. *Saxifraga oppositifolia*.—Among the rocks near Blackstones. (See above, No. 64.)
90. *Scrophularia Scorodonia*.—On the sea coast, near the Magherie Islands, in Tralee Bay.
96. *Sorbus*, sp. "True Service."—Killarney. (Probably *Pyrus Aria*, but worth inquiry as to which form. It might be *P. pinnatifida*, or a hybrid between *P. Aria* and *P. aucuparia*.)
102. \* *Polemonium cæruleum*.—In a meadow near Castle Island. Does it still grow there?
104. *Xanthium*, seu. *Lappa minor*.—Common in the barony of Iraghticonnor, near Listowel, and other places. (An *Arctium*, probably *A. minus*.)

## 2. PLANTS IN CORK.

7. *Dryas octopetala*.—On high grounds between the barony of Muskery and the county of Kerry.
14. *Helianthemum vulgare*.—In the barony of Muskery, on some limestone hills, near Castlemore. (It would be highly desirable to know which species grows here; see p. 34.)
16. \* *Helleborus viridis*.—In a meadow near Doneraile. (Probably extinct; but its being naturalized at the time of Smith shows that it was then cultivated.)
19. *Convallaria majalis*.—In Castle Bernard Park, near Bandon. (Also in Kerry, No. 61; a plant that could hardly be mistaken.)
24. *Convallaria multiflora*.—In Castle Bernard Park, near the River Bandon. (Possibly introduced, but should be looked for.)
26. *Ruscus aculeatus*.—(See Kerry, 86.) Near Brinney, between Cork and Bandon. (This, like the Lily-of-the-Valley, is a species that should not have been mistaken.)
27. *Juniperus Sabina*.—On the east side of Muskery mountain. (No doubt *Juniperus*, var. *nana*. Ray tells us that "*J. alpina*" was known as "Savine" in Wales and Westmorland.—Cat. Plant Angl., p. 176.)
32. \* *Anchusa* (either *Alkana tinctoria* or *Anchusa sempervirens*).—At Carre's Mill, near Monkstown, Cork. (No doubt an introduced plant.)
58. *Teucrium Scordium*.—Near the River Bride, east of Castle-Lyons.

## 3. PLANTS IN WATERFORD.

3. *Peucedanum*.—South-east of Passage. (Probably *Enanthe Lachenalii*.)
20. *Spirea Filipendula*.—On the mountains of Cumeragh, here and there among the rocks.
23. *Silene Otites*.—Plentifully in the grove near Lismore, over the Blackwater river. (? *Lychnis diurna*.)
25. *Gladiolus* sive *Xiphium*.—At the upper end of the Conegary, near Dungarvan, plentifully.
28. *Convallaria majalis*.—By the side of the river of Collygan, in a wood, pretty plentifully. (It seems unlikely that *Allium ursinum* should have been mistaken for the *Convallaria*.)
29. \* *Polemonium caeruleum*.—Along the north bank of the Blackwater, between Cappoquin and Lismore. (Does it still grow there?)
30. *Teucrium Scordium*.—Between Lismore and Tallow, near a brook side.
31. *Daphne Laureola*.—This grew in a wood near Mogehey, in the parish of White-church. (Probably planted.)
38. *Corydalis claviculata*.—In the wood on the north side of the river, between Cappoquin and Lismore, (with *Betonica* and *Polemonium*). [Was the *Betony* introduced in this locality?]

## II.—WADE'S PLANTS.

A.—Plants recorded by Dr. Wade, as seen by him in the west of Ireland, especially Galway, extracted from the list of rare plants observed in Galway (Dubl. Soc. Trans., 1801), and from "Plantæ Rariores," 1804.

*Potamogeton gramineus*.—Ballinahinch, Connemara (*Gallovid*).

*Lysimachia Nummularia*.—Streamstown, Connemara (*Gallovid*). (Also at Kilmashoge (*Wade, iDubl.*).

*Cochlearia anglica*.—Common in Connemara.—(*Gallovid*.) Probably *C. officinalis*.

*Pinus sylvestris*.—Stunted, but very old trees, scattered in a few places in Connemara.—*Gallovid*. It is to be feared that Yews or Hollies (seen at a distance) were mistaken for Fir trees. Mr. G. H. Kinahan has not succeeded in finding a single tree in Connemara of *P. Sylvestris*, which can be considered truly indigenous.

*Lycopodium imundatum*.—By the road between Oughterard and "The Recess." Probably correct; but as it is one of the rarest of Irish plants, the station should be verified.

The Roman numerals following are those employed by Dr. Wade in his "Plantæ Rariores."

- XII. *Scirpus acicularis*.—Ballinahinch. (Probably *S. Savii*.)  
 XX. *Digitaria sanguinalis*.—Sand-hills at Dough, Clare. Possibly *Cynodon Dactylon*. (This is especially worth searching for. It is described as growing in company with *Matthiola sinuata*.)  
 XXII. *Phleum alpinum*.—Lettery mountain, near the summit. (Probably *P. pratense*.)  
 XXIII. *Knappia*.—With the former. (Probably *Agrostis var. pumila*.)  
 XXXII. *Alchemilla alpina*.—Mam Turk and Cong. (Probably *A. vulgaris*.)  
 LXI. *Juncus trifidus*.—Mangerton and Connemara. (Probably some form of *J. uliginosus*.)  
 LXI. *J. filiformis*.—Lettery mountain. (Probably also *J. uliginosus*.)  
 CXIX. *Limosella aquatica*.—Frequent near Ballinahinch, where water has stood during winter. (Not known as Irish. Possibly a *Callitriche*, or *Littorella*, was mistaken for *Limosella*.)  
 CXXIV. *Cardamine bellidifolia*.—Rocks about Finto, Clare. (Probably *Sisymbrium thalianum*, or *Arabis ciliata*.)  
 CLXIV. *Orchis hircina*.—In shady thickets in the barony of Tullagh, Clare, producing abundant flowers, at the beginning of August. (Probably *Habenaria chlorantha*.)  
 CLXXXV. *Carex divisa*.—Salt marshes at Aghris and Renvil, Connemara. (Either *C. distans* or *C. extensa*.)  
 CCXII. *Ceratophyllum demersum*, and (CCXIII.) *C. submersum*.—Ballinahinch, &c. Common in Connemara. (Probably *Myriophyllum*.)  
 CCXXVII. *Atriplex (Obione) pedunculata*.—Salt marshes, Cushtrower Bay, near Ballinahinch, Connemara, sparingly. (Some mistake, probably, as no other botanist has succeeded in finding it.)  
 CCXXIV. *Osmunda (Crytogramme) crispa*.—Mountains about Ballinahinch. (Probably *Lastrea cœmula*.)

B.—Plants near Dublin, &c.:

- LII. *Trinia vulgaris*.—Pasture fields near the church at Athboy, Meath. (Probably some form of *Pimpinella Saxifraga*.)  
 LIII. *Corrigiola littoralis*.—Sutton side of Howth. (Probably *Polygonum aviculare* var.)  
 LIX. *Juncus acutus*.—Howth. (Probably *J. maritimus*.)  
 LXIII. *J. triglumis*.—Dublin mountains, with *J. filiformis*, common. (Some error of name.)  
 LXIV. *Rumex maritimus*.—Salt marshes at Howth. (Some mistake as to species.)  
 LXVI. *Alisma natans*.—Balruddery. (Possibly one of the other *Alismæ*, or *Hydrocharis*.)

- LXXX. \**Silene nutans*.—Old walls near Island Bridge. (We have not been able to find the plant.)
- XC. †*Sorbus domestica*.—In a copse by the way-side between Maryborough and Mountmellick, Queen's County; also at "River" Lyons. This should be inquired into. Probably some form of *P. Aria*, or a hybrid. (See Smith's Kerry Plants, No. 96.)
- XCI. *Rosa villosa*.—On Ireland's Eye. (Species to be determined, as Wade supposed it to be "the Garden Rose"—? *R. pomifera*.)
- XCII. *Rosa lutea* (? *R. Eglanteria*, Linn.)—Near Ballyhill, Carrickfergus, far from a garden. (Does it still grow there? and what species?)
- CIII. \**Helleborus viridis*.—Drummartin, near Dundrum, Dublin. (Does it still exist?)
- CVII. \**Teucrium Chamædryas*.—Borders of fields at the Green Hills, on the way to Tallaght, Dublin. (Not found for many years.)
- CXXII. *Lepidium ruderale*.—On the North Wall, Dublin, sparingly. (Not seen of late.—See p. 30.)
- CXLI. *Trifolium maritimum*.—Field near Kilbarrock churchyard. (*T. striatum* grows there.)

C.—Plants in "Flora Dublinensis" not found lately:

- Poa compressa* (p. 23).—"Occasionally." Not found by D. M. or D. Orr.
- Plantago media* (p. 38)—Certainly not "in glareosis et ad vias passim." Never seen by D. M. in Dublin. Reported from Kildare.
- Galium uliginosum* (p. 43).—Templeoge and Terrenure. (Very rare in Ireland. The locality requires confirmation.)
- Lysimachia Nummularia* (p. 56).—Kilmashoge. (It would be desirable to see whether indigenous.)
- Chenopodium ficifolium* (p. 70).—Not seen recently.
- Chenopodium polyspermum* (p. 71).—Rich fields and salt marshes, near the North Wall. (Not found lately.)
- \* *Myrrhis odorata* (p. 84).—(Not seen lately. Was probably much more cultivated in former times.)
- Drosera longifolia* (p. 94).—(Is this *D. intermedia* or *D. anglica*?)
- \* *Narcissus poeticus* (p. 96).—(*N. biflorus* grows near the Obelisk at Killiney. The localities of Newtown Park and Cabinteely require examination.)
- \* *N. Pseudo-narcissus* (p. 96).—Simmon's Court, between Ball's Bridge and Merrion; Ballygall, near Glasnevin; near Drumcondra, &c. (Which species grows here?)
- Juncus biglumis* (p. 100).—Kilgobbin, very sparingly. (No doubt a mistake of name, as in the case of *J. trifidus*, p. 99.)
- Hypericum montanum* (p. 208).—Howth and Dublin mountains. (Error of name probably.)
- Orchis ustulata* (p. 246).—Between Sandymount and Merrion. (Probably a mistake.)

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RECENT ADDITIONS

TO THE

FLORA OF IRELAND:

BEING A FIRST SUPPLEMENT

TO THE

*CYBELE HIBERNICA.*

BY

A. G. MORE, F.L.S., M.R.I.A.

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1872.



RECENT ADDITIONS  
TO THE  
FLORA OF IRELAND,  
&c., &c.

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THE present Paper originated in a desire to review the progress that has been made during the past six years in investigating the localities and distribution of Irish Plants; and I have, therefore, with the help of my friend and partner, Dr. Moore, put together in a connected form the several items of information which have accumulated up to this time, from various sources, and which, together with the results of our own occasional excursions, will furnish a tolerably complete record of what has been done since the summer of 1866, when our book, the "Contributions towards a Cybele Hibernica" appeared.

In a country so well known as Ireland, that has been searched botanically, since the time of Threlkeld and Patrick Browne, by Templeton, Wade, Drummond, Mackay, &c., and in our own day by other resident as well as travelling botanists, it cannot be expected that many flowering plants remain to be added to the Flora. It is rather in the regular and systematic survey of the country, in the more exact and critical discrimination of species, and in the study of the introduced plants that advance may be looked for. That the last few years have not been altogether barren of results will be evident when we come to recapitulate the various *addenda*.

For the long list of new plants and new localities which I now have the pleasure to lay before the Academy, we are in great measure indebted to the diligence and kindness of the numerous friends who have continued to entrust us with the result of their observations; and we are glad to think that among them are some whose attention and interest were perhaps first awakened, or at least directed to a profitable end, by the use of our *Cybele Hibernica*.

Foremost among those to whom we are thus indebted are:—

Mr. R. Clayton Browne, jun., of Browne's Hill, who has contributed a number of localities from the County of Carlow, etc., and has thus

filled up many of the *desiderata* in district iii. He is also the first botanist who has noticed *Crepis setosa* in Ireland.

The Rev. T. Allin, of Avoncore, has devoted much time and attention to the plants of Cork, and even in that well examined district has discovered many new localities, and some plants previously unknown in the county. Among them, *Rumex maritimus* and *Mentha sylvestris* deserve especial mention.

Mr. S. A. Stewart, of Belfast, has continued his diligent and careful observations, and besides numerous new stations, has found *Valerianella carinata* and *Acorus Calamus* in the North of Ireland: and *Scelerochloa procumbens* (one of the rarest Irish plants) in the very town of Belfast.

Mr. H. C. Hart has sent us some valuable notes of his many botanical rambles in Donegal, and he has also placed at our service a very full catalogue of the plants of the Southern Isles of Aran, the most complete that we have seen. He has also found *Brassica adpressa* for the first time in Ireland, and rediscovered *Alyssum calycinum* at Portmarnock.

Mr. J. Morrison, of Spring-hill, Enniscorthy, has kindly allowed us to examine his Herbarium, in which we have found, together with many other interesting plants, Irish specimens of *Oxalis stricta*, *Geranium nodosum*, *Erythraea pulchella*, and *Cochlearia anglica*.

Mr. R. M. Barrington, of Fassaroe, has supplied many localities from Wicklow and Waterford, and we are indebted to him for ascertaining that *Cuscuta trifolii* is permanently established as a colonist in the clover fields about Fassaroe.

Mr. Dowd, of the College Botanic Garden, has largely contributed towards filling up the list of district vii., and has found, for the first time in Ireland, *Malva borealis*, *Berteroa incana* and *Centaurea paniculata*. He also, with Professor E. P. Wright, has been the first to ascertain the immense and surprising abundance of *Sisyrinchium Bermudiana* over the low meadows lying between Woodford and Lough Derg, in some of which it actually constitutes a large proportion of the hay crop. Our reasons for still continuing to doubt the nativity of this plant in Ireland will be found fully given in the latter portion of this Paper. It will suffice here to say that a plant which has quite recently become established, with every appearance of a native, in Queensland, Australia, and also near Christchurch, in the South of England, may in Ireland have had a similar origin, and therefore cannot any longer be cited with confidence as indicating a former connexion between the American and Irish Floras.

From the Rev. S. A. Brennan, the Rev. S. Madden, Mr. John Douglas, Miss E. M. Farmer and others, we have received continual and most useful contributions. Besides these sources of private information, we have freely drawn upon Seemann's, now Trimen's, "Journal of Botany," and availed ourselves of the information given by Dr. Sigerson, Dr. E. P. Wright, Mr. S. A. Stewart, Mr. R. Tate, Mr. W. Andrews, Mr. G. H. Kinahan, and the late Mr. F. J. Foot in their published papers, the titles of which will be fully quoted hereafter.



In a copy of Threlkeld's "Synopsis Stirpium Hibernicarum," belonging to the Royal Irish Academy, are a few MS. notes left by some former owner, from which we have extracted those that seemed sufficiently important. One of these memoranda supplies a probable clue to the author of the list of plants in Harris's "Down," whose name appears to have been Isaac Butler.\*

Last, but not least, we gratefully acknowledge the kindness of Dr. R. Templeton, Deputy Inspector-General of Hospitals, who has most liberally favoured us with the loan of the MS. "Catalogue of the Native Plants of Ireland," which was drawn up between 1794 and 1810 by his father, the eminent naturalist, John Templeton of Belfast.

In enumerating the plants added to the Irish Flora since 1866, it will be convenient to arrange them under the following heads:—

#### SUMMARY OF ADDITIONS.

##### *Undoubted natives*, 8.

|                            |                                           |
|----------------------------|-------------------------------------------|
| Trifolium subterraneum, E. | Salix Grahami, N. W.                      |
| Trifolium glomeratum, E.   | <i>Draba rupestris</i> , N. W.            |
| Scirpus parvulus, E.       | <i>Galium cruciatum</i> , N. E.           |
| Aira uliginosa, W.         | <i>Pyrola rotundifolia</i> , <i>Midl.</i> |

Of these the last three, printed in italics, have before now been recorded as Irish, though in 1866 we did not think that there was sufficient authority for their admission as such.

All eight are well known to occur in Great Britain, but at the time when first found in Ireland neither *Scirpus parvulus* nor *Aira uliginosa* had been gathered for many years.

Two of the eight are Western and Alpine, thus showing that something may yet remain to be done in the mountain botany of this country.

Four are Eastern, three of them having been found on the coast of Wicklow, within a short journey from Dublin. Of these, *Trifolium glomeratum* is the only species of our present *addenda* which belongs to Watson's Germanic or South-eastern type.

*Draba rupestris* is given in the seventh edition of Withering's "Botanical Arrangement," as found plentifully in Leitrim and Sligo by Mr. E. Murphy; but as *Draba incana* was not recorded by Mr. Murphy, though it is abundant on these mountains, while *D. rupestris* is very scarce, there is reason to fear a mistake was made in the name.

*Galium cruciatum*, long ago recorded in Harris's "Ancient and Modern state of the County of Down," as occurring near the Cathedral at Downpatrick, had quite escaped our notice, as it had that of Mackay; but having ascertained that it still grows in this locality, and has recently been found at Colebrooke, Fermanagh, we are very glad to restore it to its proper place in the Flora.

---

\* A Botanist, and maker of Astrological Almanacks, who died in 1756.

*Pyrola rotundifolia* was included in How's "Phytologia Britannica" so long ago as 1650, as having been found by Mr. Heaton in a bog by Roscrea, in the King's County, a locality not yet verified, but which may prove correct, though in all other instances, except at Multyfarnham, we have satisfied ourselves that either *P. media* or *P. minor* have been gathered in the alleged Irish localities for *P. rotundifolia*.

*Natives, but doubtful as species 3.*

Thalictrum Kochii      Epilobium tetragonum (verum.)  
Potamogeton Lonchites.

The first two are critical plants, and would no doubt be classed as varieties by a great many botanists. *Potamogeton Lonchites* (Tuck) is a new name applied by Dr. Boswell Syme to the *Potamogeton* from the River Boyne, which we referred doubtfully to *P. heterophyllus*; and if correctly identified with the American species, this is one more American plant occurring in Ireland, though found nowhere else in Europe: but it is difficult to feel quite sure, when dealing with a genus of plants so variable and so little understood as the *Potamogetones*.

*Plants probably introduced, 3.*

Erysimum cheiranthoides.      Mentha sylvestris.  
Tamus communis.

The first two have already been admitted in the works of Mackay and others; but we now for the first time are able to give satisfactory localities. It is surmised that *Tamus communis* was planted at Hazlewood by the late Mr. Wynne.

*Plants certainly introduced,*

But well established in the wild state, 3:—

Acorus Calamus.      Hippophae rhamnoides.  
Cuscuta Trifolii ("Colonist,")

the first two having been planted, the last accidentally sown when mixed with agricultural seeds. Though planted at Courtown, it is barely possible that *Hippophae* may be native on the sandhills further south, according to what we hear from Mr. J. Morrison.

*Casuals.*

That is, plants certainly introduced by man, and which cannot be considered permanent additions to the Flora, being waifs and strays

from cultivation, or weeds springing from seeds conveyed by accident, 14 :—

|                      |                          |
|----------------------|--------------------------|
| Cardamine impatiens. | Valerianella carinata.   |
| Brassica adpressa.   | Crepis setosa.           |
| Berteroa incana.     | Centaurea paniculata.    |
| Malva borealis.      | Carduus setosus.         |
| Geranium nodosum.    | Campanula rapunculoides. |
| G. phæum.            | Mentha Requierii.        |
| Oxalis stricta.      | Cynosurus echinatus.     |

Nearly all these are, no doubt, recent introductions, and most of them will probably disappear in the course of a few seasons. *Valerianella carinata* and *Crepis setosa* may possibly establish their hold on the ground, and thus in time become entitled to rank as "Colonists."

Thus there are thirty-one plants, which, after deducting casuals and a few that have before been borne on the Irish list, will leave at least twelve species to be reckoned as genuine additions to the Flora; and this I think is no inconsiderable result, and far exceeds the additions made to the English and Scottish Floras within the same time. Still, this scarcely increases the total number, as we have on the other hand to deduct ten plants, viz. :

#### SPECIES TO BE REMOVED FROM THE LIST.

- ?*Brassica oleracea*. Not a native, and nowhere well established.
- Genista tinctoria*. Not to be found at Killiney, some error?
- ?*Chrysosplenium alternifolium*. Thought to have been planted near Belfast, and we fear that the other stations are erroneous.
- Campanula latifolia*. *C. Trachelium* mistaken for it.
- ?*Arctium majus*. Name doubtful, as the only specimen is imperfect.
- Calamintha Nepeta*. Was *C. officinalis*.
- Chenopodium intermedium*. Now thought to have been *C. murale*.
- Salix procumbens*. Was *S. phlyicifolia*.
- Potamogeton lanceolatus*. Was a form of *P. polygonifolius*.
- Eriophorum alpinum*. Some error, or change of specimens.

Among the discoveries of localities for scarce plants not new to the Flora, we have :

*Neotinea intacta*. Found by D. Moore on the shores of Lough Corrib in Mayo, associated with *Ophrys apifera*, *Potentilla fruticosa*, and other species characteristic of the Burren District, and therefore leading us to expect the discovery of this rare little orchid in other localities intermediate between Cong and Castle Taylor.

*Rumex maritimus*. Found by the Rev. T. Allin in Cork, this being the second Irish locality.

*Arundo Epigejos*. Gathered by Mr. H. C. Hart in Great Aran Island, this making the third locality in Ireland.

*Diotis maritima*. Found at Carnsore Point, Wexford, by Mr. J. Waddy. A new station for one of the scarcest British plants.

*Equisetum trachyodon* (*Mackaii* Newm.) at Blarney, and

*Callitriche autumnalis* at Killarney, both unexpectedly found to range to the South of Ireland.

*Eriophorum latifolium* at Roundstone. Range of a very local species extended to the West of Ireland.

*Helminthia echioides*. Range extended northwards to Antrim, and another instance of a local southern species occurring in north-east Ireland.

*Adiantum Capillus-veneris*. Limerick, Mayo, and Donegal added to the few counties in which this very local Fern has been found.

*Poa compressa*. Ballycastle and Portadown, two new districts for a very scarce grass.

*Sclerochloa procumbens*, Belfast, previously collected at Cork only. *Galium uliginosum*, *Erythraea pulchella*, *Carex axillaris*. New localities for three scarce plants, of which we had previously seen no Irish specimens.

The extension and increase of alien weeds is illustrated by the spread of—

|                        |                        |
|------------------------|------------------------|
| Anacharis Alsinastrum. | Diploaxis muralis.     |
| Veronica Buxbaumii.    | Melilotus officinalis. |
| V. peregrina.          | Rumex pulcher.         |
| Crepis taraxacifolia.  | Sisymbrium Irio.       |

To these we may perhaps add :

|                          |                        |
|--------------------------|------------------------|
| Sisyrinchium Bermudiana. | Orobanche minor.       |
| Cuscuta Trifolii.        | Valerianella carinata. |

While as examples of decrease we have :

|                     |                        |
|---------------------|------------------------|
| Carex Buxbaumii.    | Eriophorum latifolium. |
| C. paradoxa.        | Euphorbia Peplis.      |
| Lathyrus palustris. | Trichomanes radicans.  |
| Arundo stricta.     | Erica ciliaris.        |

Some of these have suffered from drainage and the reclamation of bogs, and through the recent operations of lowering the level of several of the large lakes. *Euphorbia Peplis*, from inroads of the sea or changes in the beach, while the decrease of *Trichomanes* alone is to be attributed to the unscrupulous depredations of plant-collecting tourists.

We now proceed to enumerate the localities in regular order, promising that whenever the word "District" is placed before a numeral, it indicates that the plant is an addition to the Flora of that province.

\* *Clematis Vitalba* (Linn.) District 4. Sandhills at Courtown, Wexford, growing with *Hippophae rhamnoides*, sparingly; A. G. M.

*Thalictrum alpinum* (Linn.)—8. Rocks on the mountain above Kylemore Castle, Connemara; D. M.

*T. minus* (Linn.) var. *maritimum*.—4. Kiltannel, Wexford; Miss E. M. Farmer. Sandhills, a little north of Arklow; A. G. M.

*T. minus* (Linn.) var. *montanum*.—12. On Slieve Donard; S. A. Stewart. This is probably the plant mentioned in "Flora Hibernica" under the name of "*T. majus*."

*T. Kochii* (Fries). District 8. Shores of Lough Conn, Mayo; A. G. M.

*T. flexuosum* (Bernh.) District 1. Islands in the lower Lake of Killarney; A. G. M.

*Ranunculus pseudo-fluitans* (Syme).—12. River Bush, and River Bann; S. A. Stewart and R. Tate. Mr. W. P. Hiern refers the plant from Chapelizod to his form "*R. penicillatus*" of Dumortier, this differing from the restricted *pseudo-fluitans* by producing floating leaves.

*R. canosus* (Guss.)—4. Clohass bog, Wexford; Miss E. M. Farmer. Roundwood, Glenmalure, Lough Dan, Glen Cree, etc.; common in Wicklow; A. G. M.

*R. hederaceus* (Linn.) District 10. Ballyskeagh, Tyrone; Dr. Sigerson.

*R. Lingua* (Linn.)—2. Youghal Bay; Rev. T. Allin.—8. Lake near Letterfrack, Connemara; D. M.—10. Abounds in the lakes near Drum, Clones; J. Bain.

*R. acris* (Linn.) The mountain form appears to be *R. Friesianus* (Jordan), and was gathered lately on Ben Bulbin, Sligo, by D. M. and W. T. Dyer, and in the Horse's Glen, Mangerton, A. G. M. The ordinary plant in Ireland is *R. tomophyllus* (Jordan.)

† *R. arvensis* (Linn.)—12. Formerly found by Templeton at Agnew's Hill, and at Inver, near Larne, but was considered introduced; *T. Hincks* (in Ann. Nat. Hist. 1841.)

*R. parviflorus* (Linn.)—2. Near Middleton and East Ferry, Cork; Rev. T. Allin.—5. In a cottage garden near Prumplestown, south of Kilkea, Kildare; J. Douglas.

*Caltha palustris* (Linn.) var. *Guerangerii*, Bor; District 9. In Glen Iff, north side of Ben Bulbin; W. T. Dyer.

*Aquilegia vulgaris* (Linn.)—2. Mr. T. Allin considers it probably native in North Cork.—6. Near Kilmurry, Great Aran Island; H. C. Hart. Among gorse by the stream between Woodford and Lough Derg; M. Dowd. District 7. Plentiful over a large field at Rutland, near Swinton, King's Co.; Miss E. M. Farmer.

[*Delphinium Ajacis* (Gay). A single plant in sandy arable ground at Portmarnock, 1869; A. G. M.]

*Papaver Argemone* (Linn.)—2. Railway embankment at Middleton; Rev. T. Allin.—4. Plentiful on the shore near Wicklow; A. G. M.—5. On a bank near Merrion shore; Annotator in Threlkeld, R. I. A. Library.

*P. hybridum* (Linn.)—5. Skerries; A. G. M.

*P. dubium* (Linn.) var. *Lecoqui* (Lam.)—5. On sandy banks at Baldoyle, with both white and yellow sap; W. T. Dyer and A. G. M.

*Meconopsis cambrica* (Vig.)—3. Wilton, Kilkenny; Rev. S. Madden.—5. Only escaped or planted in this district. District 10. Ballyskeagh hill, Tyrone; Dr. Sigerson.

*Glaucium luteum* (Scop.) District 6. Middle Island of Aran, Galway; H. C. Hart.

*Corydalis claviculata* (D. C.)—4. Bray Head! and wood at Luggielaw; Templeton.

*Fumaria confusa* (Jord.) District 4. Near Wicklow; A. G. M.

*Nasturtium palustre* (D. C.)—1. Marshy ground on Ross Island, Killarney; H. C. Hart.—2. Buttevant and Kanturk, not rare in North Cork; Rev. T. Allin. District 3. Near Fenagh, Carlow; R. Clayton Browne. District 4. Frequent about Enniscorthy; J. Morrison.

*Obs. Cardamine impatiens* (Linn.) Dr. E. P. Wright has drawn our attention to a specimen gathered by the Rev. W. M. Hind at Shane's Castle, and preserved in the British Herbarium at Trinity College, from which it appears that Mr. Hind's record of this species in the "Phytologist" was quite correct: but our careful correspondent, Mr. S. A. Stewart, has not succeeded in discovering this plant, and thinks, from the nature of the locality, that it may have been introduced. Hence we feel compelled for the present to leave its claims to a place in the Irish Flora undecided.

\**Hesperis matronalis* (Linn.)—4. Formerly plentiful and apparently wild at Rockmount, between Ferns and Enniscorthy; J. Morrison.—9. Plentiful in the woods at Rockingham, Roscommon; D. M. This perhaps deserves to be considered permanently naturalized.

*Sisymbrium officinale* (Scop.) District 6. Aran; E. P. Wright. District 7. Parsonstown; M. Dowd.

†*S. Irio* (Linn.)—5. Roadsides south of Rathfarnham, Milltown, and Clonskeagh; A. G. M.

†*S. Sophia* (Linn.)—5. Sandhills by the Creek at Donabate, and on the south shore of the estuary below Drogheda; possibly introduced in all the Irish localities; A. G. M.

*Alliaria officinalis* (Andrz.) District 7. Here and there in the woods about Parsonstown; M. Dowd. District 10. Enniskillen, Fermanagh; plentiful; S. A. Stewart.

\**Erysimum cheiranthoides* (Linn.) District 7. In cultivated land and waste ground along the road for two miles between Parsonstown and Portumna, in Galway, and in the adjoining part of Tipperary; M. Dowd.

[*Brassica adpressa* (Boiss.) *Sinapis incana* (Linn.) A single plant at Portmarnock, 1867; H. C. Hart.]

†*Sinapis nigra* (Linn.) 4. Frequent in waste ground about Enniscorthy; J. Morrison. 12. Cultivated fields on the Curran of Larne; D. M. District 6. In cultivated ground and by waysides about Killeany, Aran; H. C. Hart.

*S. alba* (Linn.) District 3. Near Carlow; J. Morrison.—6. Killeany, Aran; H. C. Hart.

† *Diplotaxis muralis* (D. C.) District 2. Waterford; omitted in the line of figures.

[*Alyssum calycinum* (Linn.) Rediscovered at Portmarnock by Mr. H. C. Hart in 1867, and observed growing there sparingly in two small fields, from 1868 to 1872.]

[*Berteroa incana* (D. C.) *Alyssum incanum* (Linn.) A single plant at Portmarnock, in 1869; M. Dowd.]

*Draba rupestris* (R. Br.) District 9. Very sparingly on the north side of Ben Bulbin, 1871; D. M. and W. T. Dyer. This plant was announced as Irish by Mr. W. Andrews in 1845 (London Journal of Botany, iv.), and had been previously recorded by the late Mr. Murphy, in the seventh edition of Withering's "Botanical Arrangement," as plentiful on the limestone mountains of Leitrim and Sligo; but as no mention is there made of *D. incana*, which is frequent on Ben Bulbin, it must remain doubtful whether that record was not erroneous.

*D. incana* (Linn.) District 8. In great luxuriance on the southern shores of Lough Mask; F. J. Foot.

*Cochlearia officinalis* (Linn.) District 6. Aran; Dr. E. P. Wright.

*C. danica* (Linn.) District 6. On a ruin near Kilmurry, Aran; H. C. Hart.

*C. anglica* (Linn.) District 4. In a salt marsh near Ferrycarrick Bridge, on the estuary of the Slaney! J. Morrison. District 6.? Near Limerick, leaves only; I. Carroll.—10.? At Cloghcor, on the banks of the Foyle, but not in fruit; Dr. Sigerson. The Irish plant is identical with *C. anglica* as found in the North-west of England, and differs considerably from the *var. didyma* which occurs in the South of England. Only *C. officinalis* grows on Killiney Hill.

† *Thlaspi arvense* (Linn.)—5. Near Navan and Nurney, Meath. Annot. in Threlkeld, apud R. I. A.

*Lepidium Smithii* (Hook.)—4. Frequent in Wicklow, near Arklow, etc.; A. G. M. Gorey, Wexford, A. G. M. Bloomfield, near Ennis-corthy; Miss E. M. Farmer.—5. Mullaghcreelan Hill, Kildare, sparingly; J. Douglas.

*Subularia aquatica* (Linn.)—12. Shores of Lough Beg, Derry; S. A. Stewart.

† *Senebiera didyma* (Pers.)—1. At Dingle, Kerry; A. G. M.—3. At Kilmacow, Kilkenny; T. Chandlee. On a footpath at Carlow; J. Douglas.—4. Churchyard at Bannow, Wexford; R. M. Barrington.—5. Roadside at Donnybrook; V. A. Smith. Near the Canal at Ball's Bridge; A. G. M.—6. Plentiful at Limerick; D. M. Abundant at Gort; M. Dowd.

*Crambe maritima* (Linn.) District 4. On the Murrough of Wicklow; Annot. in Threlkeld, apud R. I. A. A few plants by the railway near "the Breaches;" 1868-70; H. C. Hart.—5. Railway bank near Killiney; R. M. Barrington.

*Raphanus maritimus* (Sm.) District 4. Ballyconigar, Wexford; J. Morrison.

† *Reseda lutea* (Linn.)—5. Sandy field by the shore near Gormans-

town, Meath; A. G. M. District 6. Waste ground S. E. of Killeany, Aran; H. C. Hart.

[*R. suffruticulosa* (Linn.) Shore at Newcastle, Down; Lord Clermont.]

† *Viola odorata* (Linn.)—4. Ballycarney, and by the Slaney, etc. in Wexford, where it appears indigenous; Miss E. M. Farmer.—5. Common on hedgebanks about Kilkea, Kildare, with both white and blue flowers; J. Douglas.

*V. hirta* (Linn.)—5. Sandhills at Portraine, opposite Malahide; A. G. M. 6. Sloping ground above Killeany, Aran; A. G. M.

*V. canina* (Linn. et Fries). District 2. Near St. Ann's, Blarney, (Mr. R. Mills); Rev. T. Allin.—8. A closely tufted upright form with blunt leaves occurs on the mountain slopes above Kylemore Lake; D. M.

*Viola lutea* (Linn.) District 4. On the banks of the King's River near Lackan, Wicklow! H. W. D. Dunlop. District 10. In the mountainous country near Bealyborough (Bailieborough.) Annot. in Threlkeld, apud R. I. A. The plant of the sandhills at Roundstone belongs rather to *V. Curtisii*.

*V. Curtisii* (Forst.)—1. Sands at Inch point, Kerry; A. G. M. District 4. Balliconigar, Wexford; J. Morrison. Sandhills from Courtown, Wexford, to Arklow and northwards; A. G. M. District 5. On the North Bull, Dublin, Baldoyle, Portmarnock, Portraine, Rush, Gormanstown to near Drogheda; A. G. M. District 6. Near Kilonan, Aran; H. C. Hart. District 8. Roundstone; A. G. M. We now include under *V. Curtisii* the sandhill Pansies of both east and west coasts.

*V. tricolor* (Linn.) District 7. Parsonstown; M. Dowd.

*Drosera intermedia* (Hayne). District 11. Near Lough-an-ure, Donegal; N. Moore, Rosses; H. C. Hart.

*D. anglica* (Huds.) District 2. On Bluefort Bog, Newmarket; Rev. T. Allin.

*Polygala depressa* (Wend.) District 10. Knockavoe and near Strabane; Dr. Sigerson.—12. Black mountain near Belfast, and bogs near Toome; S. A. Stewart.

*Elatine hexandra* (D. C.)—1. Lough Carra, Kerry; W. Andrews.

*Silene anglica* (Linn.)—1. Shepperton and at Lissard, Cork; Rev. T. Allin. District 5. Sandy fields at Portmarnock, 1869; H. C. Hart.—12. By the new road to the Ferry, Bellaghy, Derry; S. A. Stewart.

*Silene inflata* (Sm.) District 11. Near Mulroy Lake; H. C. Hart. Near Horn Head; N. Moore.

*S. maritima* (With.)—12. Abundant along the basaltic range from Portrush to Craignashoag, Derry, ranging to 1200 feet; D. M.

*Lychnis vespertina* (Sibth.) District 3. Browne's Hill, Carlow; R. C. Clayton Browne. District 11. Near Lough-an-ure, Donegal; H. C. Hart.

*L. diurna* (Sibth.)—9. About Ben Bulbin, Sligo; D. M.



*Sagina ciliata* (Fries). District 4. On the bridge at Arklow, and near the Castle ruin at Wicklow; A. G. M.

*S. subulata* (Wimm.) District 11. Dunaff Head, Donegal; H. C. Hart.

*Honkeneya peploides* (Ehrh.) District 6. Aran; H. C. Hart.

*Arenaria serpyllifolia* (Linn.) District 6. Aran; H. C. Hart. District 7. Parsonstown; M. Dowd.

*Arenaria ciliata* (Linn.)—9. A specimen preserved in Buddle's Herbarium in the British Museum was collected by Lhwyd near Sligo, probably in 1699 (Seemann's Journal of Botany, 1870, p. 324.)

*Stellaria graminea* (Linn.) District 11. Glenalla, Donegal; H. C. Hart.

Obs. *Malachium aquaticum* (Fries). The specimen in Cork Institution is attributed to Drummond by Dr. Hincks (Ann. Nat. Hist. 1841), but is not included in Drummond's own list; hence we fear some mistake has occurred.

*Cerastium glomeratum* (Thuil.) District 11. Killybegs, etc.; H. C. Hart.

*C. triviale* (Link). District 7. Parsonstown; M. Dowd. District 11. Pettigo and near Lough Derg; S. A. Stewart.

*C. arvense* (Linn.)—5. On Feltrim Hill and at Donabate; A. G. M. Plentiful on the north side of Lambay Island; R. M. Barrington.

*Malva moschata* (Linn.)—3. Here and there in Carlow; R. Clayton Browne. In Queen's County; J. Douglas.—4. Near Ovoca station; A. G. M.—5. Near Drogheda; J. B. Hamilton.

[*Malva borealis* (Wallm.) Two plants were found by Mr. M. Dowd in 1869, growing on some rubbish at Donnybrook, near Dublin, evidently introduced by some accident].

*Althaea officinalis* (Linn.) District (11.) Near Bundoran, 1867; H. C. Hart. Probably an escape from a garden. The natural localities are very few, and careful investigation is required to determine the proper range of this plant in Ireland.

†*Lavatera arborea* (Linn.)—6. Apparently indigenous on the north cliffs of the great Island of Aran, and on Rock Island, the most western of Aran; H. C. Hart.

*Hypericum dubium* (Leers).—4. Roadside near Cloghamon, Wexford; J. Morrison. Near the station at Ovoca, Wicklow; A. G. M.

*H. pulchrum* (Linn.) District 10. Castle Derg, Tyrone; S. A. Stewart.

†*Acer campestre* (Linn.) District 9. Hedges about Sligo; D. M.

*Geranium pratense* (Linn.)—12. Dunluce Castle, and all the north part of Antrim; about Ballintoy; R. Templeton, M. S. On blown sand at Port Bradden; R. Tate. Mr. Tate has confirmed the accuracy of Mr. Templeton's observations, and has found *G. pratense* much more frequent than *G. sylvaticum* on the north coast.

†*G. pyrenaicum* (Linn.) District 2. Roadside near Charleville, and a single plant in a pasture field near Middleton; Rev. T. Allin.—5. Roadside banks near the Hill of Tara, Meath; A. G. M.

*G. columbinum* (Linn.)—2. Near Middleton and Castletown-Roche; Rev. T. Allin.

*Geranium rotundifolium* (Linn.)—2. Rare about Middleton; Ballyvodock, and near Youghal; Rev. T. Allin. District 5. Rediscovered in 1867 on some old walls at Glasnevin; D. Orr.

[*G. nodosum* (Linn.) Wood at Newtownbarry, Wexford; well-established in 1871; J. Morrison.]

[*G. phaeum* (Linn.) Has grown for many years in a neglected avenue near Ballybeg Railway Station, Meath; G. Dawson. At Roxboro', Middleton, remains of cultivation; Rev. T. Allin. By the roadside a mile south of the Church in Island Magee; R. Tate. In all cases introduced.]

*Erodium cicutarium* (Sm.) District 6. Aran: H. C. Hart.

*E. moschatum* (Sm.)—1. Many places in West Cork, as Leap, Glendore, Clonakilty, etc.; Rev. T. Allin.—2. Frequent on roadsides near Youghal; ditto.—4. Near Bannow, Wexford; R. M. Barrington.—6. Near Killeany and Kilronan, Aran; H. C. Hart. District 11. Roadside at Rathmullen, Donegal; Rev. T. Allin.

*Erodium maritimum* (Sm.)—12. Sands at Portrush; S. A. Stewart.

*Linum angustifolium* (Huds.)—2. Not rare near Youghal; Rev. T. Allin. Railway banks, Waterford; R. M. Barrington. District 3. Near Kilkenny; W. Archer.—4. Bannow; R. M. Barrington. Bloomfield and near Daphne; Miss E. M. Farmer.—5. A little north of Gormanstown, Meath; A. G. M. District 6. Meadows between Woodford and Lough Derg; M. Dowd.

*Radiola millegrana* (Sm.)—1. Berehaven; A. G. M.—2. Ballintowtas, Middleton; Rev. T. Allin.—11. Common in Fanet; H. C. Hart.

[*Oxalis stricta* (Linn.)—Belfast (G. O'Brien, 1842), Lisnagarvey, near Lisburn, 1850 (S. Pim); Herb. Morrison.]

*Rhamnus catharticus* (Linn.)—6. In Great and Middle Aran; H. C. Hart. District 5. Monasterevan and District 3. Cottoner's brook by Mountmellick; Annot. in Threlkeld, apud R. I. A.

*R. Frangula* (Linn.) District 3. Plentifully in Mountmellick bog by Cottoner's Wood, 1732; Annot. in Threlkeld, apud R. I. A.

*Ulex (nanus) Gallii* (Planch). Ascends above 2000 feet on Carn Tual, to 1500 or 1600 on Mangerton, thus ranging much higher in the West of Ireland than in England; A. G. M.

*Genista tinctoria* (Linn.) Has not been rediscovered in the only locality given by Mackay, and we much fear that a dwarf and procumbent state of *Sarothamnus scoparius* which grows on Killiney Hill and at Howth has been mistaken for it.

[*Medicago falcata* (Linn.) Portmarnock; *Flor. Hib.*, but not seen recently. Terminus, York street, Belfast; W. Millen. Evidently introduced. This was intentionally omitted in our book, as having no claim to be considered established.]

†*Melilotus officinalis* (Willd.)—2. A few plants in a pasture field at Ballinacurra, 1870; Rev. T. Allin. District 4. Roadside opposite a

mill on the River Urrin, near Enniscorthy; Miss E. M. Farmer.—5. On the mountain side south of Rathfarnham; Annot. in Threlkeld, apud R. I. A. Plentiful along the railway embankment north of Malahide, and here and there about the sandhills at Portraine and Rush; A. G. M. and D. M. Raheny; H. C. Hart.

\**M. arvensis* (Willd.)—12. Railway embankment between Kilroot and Whitehead, and between Glynn and Larne, Antrim; R. Tate.

*Trifolium arvense* (Linn.)—2. Plentiful on Cable Island, Youghal; Rev. T. Allin.—4. Curacloa, Wexford; Miss E. M. Farmer.—5. Sandy ground near Merrion; *Threlkeld*. District 6. Between the Lighthouse and the old Fort in South Island of Aran; H. C. Hart.

*T. striatum* (Linn.)—5. Abundant on Feltrim Hill, A. G. M. On a headland north of Rush; D. Orr.

*T. scabrum* (Linn.) District 2. Sands at Fanisk, Youghal; Rev. T. Allin. District 4. Near Newcastle and Killoughter, Wicklow; A. G. M. Between Kilcool and Greystones; H. C. Hart.—5. Killiney; D. M. On the North Bull! and Sutton side of Howth; D. Orr. It is this species rather than *T. striatum* which has been mistaken for *T. maritimum* in Ireland.

*T. glomeratum* (Linn.) District 4. By the river side near the railway station at Wicklow, growing with *T. subterraneum*, 1869; D. M.

*T. subterraneum* (Linn.) District 4. By the river side at Wicklow, June, 1867; A. G. M.

*T. ornithopodioides* (Linn.)—4. On the hill near the Castle ruins at Wicklow; by the river at Wicklow; near the river at Bray; A. G. M.

*T. fragiferum* (Linn.)—4. Common near the sea in Wexford; Miss E. M. Farmer.—5. Shore at Ballybrack, Dublin, and at Gormanstown and Laytown, Meath; A. G. M.

*T. procumbens* (Linn.) District 10. Frequent in Tyrone; Dr. Sigerson.

*T. filiforme* (Linn.)—4. Arklow; A. G. M. District 10. At Tynan Abbey, Armagh; S. A. Stewart.

*Lotus corniculatus* (Linn.) *var. tenuis*. District 12. Near Glynn, Antrim (S. A. Stewart); R. Tate.

*Anthyllis vulneraria* (Linn.) District 10. Clogh-cor, Tyrone; Dr. Sigerson. Five-mile town; T. O. Smith.

*Vicia hirsuta* (Koch). District 6. Woodford, Galway; R. M. Barrington.

*V. sepium* (Linn.) District 7. Parsonstown; M. Dowd.

*V. lathyroides* (Linn.) District 11. Dunaff Head, Donegal; H. C. Hart.—12. Warren at Donaghadee, Down; S. A. Stewart.

†*Prunus insititia* (Linn.) District 10. Artigarvan, Tyrone; Dr. Sigerson.

†*P. avium* (Linn.) District 10. Lower Holy Hill, Tyrone; Dr. Sigerson.

*Poterium Sanguisorba* (Linn.) District 4. About Fassaroe, near Bray, in several places; R. M. Barrington.

*Agrimonia Eupatorium* (Linn.) District 11. Fanet, Mulroy, etc., in Donegal; S. A. Stewart. Carrigart; H. C. Hart.

*A. odorata* (Mill.) District 4. Near Enniskerry; A. G. M. District 8. Very fine near Clifden, Connemara; never seen by me on the limestone, where *A. Eupatorium* seems to take its place; A. G. M.

*Potentilla fruticosa* (Linn.) District 9. On the north-east shore of Lough Corrib; D. M.

*Rubus idæus* (Linn.) District 10. Plentiful in Fermanagh and Tyrone; S. A. Stewart.

*R. cæsius* (Linn.) District 7. Near Parsonstown; M. Dowd.

*Geum rivale* (Linn.) Districts 3, 4, 6, 7, 8, 9, 10, 11, 12, which were accidentally omitted.

†*Pyrus Malus* (Linn.) District 10. Glenmornan and Artigarvan, Tyrone; Dr. Sigerson. District 11. One tree in the Rosses, Donegal; H. C. Hart.

*P. Aucuparia* (Gaert.) District 10. Glenmornan, Tyrone; Dr. Sigerson.

‡*Epilobium roseum* (Schreb.)—12. First found by Mr. Templeton in his orchard at Cranmore in 1820, but apparently occurs only as a weed or colonist in this district.

*E. hirsutum* (Linn.) District 10. By Lough Erne near Tempo; T. O. Smith.

*Epilobium tetragonum* (Linn.) (typical.) District 5. By the roadside west of Carrickmines! Prof. A. Dickson. This is the only locality at present known to us.

*E. palustre* (Linn.) District 7. Common near Parsonstown; M. Dowd.

*Myriophyllum verticillatum* (Linn.)—6. Ditch near the bridge at Portunna; S. A. Stewart.

*M. alterniflorum* (D. C.) District 2. Plentiful in this district, about Middleton, etc.; Rev. T. Allin. District 10. Castle Derg, Tyrone; S. A. Stewart. District 12. Lough Neagh, Glenarm, etc.; R. Tate.

*Lepigonum rubrum* (Fries). District 4. Strand at Ballyconigar! Wexford; J. Morrison. On Vinegar Hill! H. Robinson.—12. South-east shore of Lough Beg, near Toome; S. A. Stewart. This seems quite rare in Ireland.

*L. rupicola* (Lebel).—4. Near Arklow and Wicklow; A. G. M.—5. Sandhills north of Rush, a most unusual kind of station; A. G. M. District 8. On many of the Islands off Connemara; A. G. M.

*Scleranthus annuus* (Linn.) District 11. Roadside between Croaghross and Rosnakill; H. C. Hart.

*Sedum Telephium* (Linn.)—6. Roadside between Woodford and Lough Derg; M. Dowd.—12. Galgorm, Ballymena; (*S. Fabaria*.) R. Tate.

\**Sedum dasphyllum* (Linn.)—2. At Carrickshean, near Middleton, where it covers a range of limestone hills and appears quite wild; Rev. T. Allin. District 12. On rocks in Glenariff Glen, Antrim, growing with *S. reflexum*; R. Tate.

*Sedum anglicum* (Huds.) District 3. Scalp rocks between Fenagh and Bagnalstown, Carlow; R. Clayton Browne.

*Cotyledon Umbilicus* (Linn.) District 10. Castle Derg, Tyrone; S. A. Stewart. Near Strabane; Dr. Sigerson.

*Saxifraga umbrosa* (Linn.)—11. In "the Poisoned Glen," and on a mountain south of Lough Ea, Donegal; N. Moore.

*S. Genm* (Linn.) District 2. Rocks above Gurthaveha Lake, near Millstreet; A. G. M.

*S. Hirculus* (Linn.) District 3. Bogs near Mountrath, Queen's County; J. Morrison.

*S. aizoides* (Linn.) District 11. In a gully on the north side of Slieve League, Donegal! H. W. D. Dunlop.

*S. hypnoides* (Linn.) In the Journal of Botany, vol. viii., p. 280, (1870); Mr. J. G. Baker has re-arranged the forms of this variable plant under five varieties, all of which occur in Ireland.

1.? *Cæspitosa* (Linn.) An imperfect specimen gathered on Brandon Mountain by Mr. Wilson, in 1829, is the only evidence of the occurring of this form in Ireland.

2. *Sternbergii* (Willd.) Brandon Mountain, Macgillicuddy's Reeks, and Galtymore. This is the *S. hirta* of Smith.

3. *decipiens* (Ehrh.) Sleeve Neesh, near Tralee; J. G. B.

4. *quinquefida* (Haw.) Top of Brandon Mountain and Isle of Aran in Galway Bay; J. G. B. This is *S. affinis* (D. Don), and is said to be more common in Wales and Scotland.

5. *hypnoides* (Linn.) Hills in Sligo; J. G. B.; and probably frequent on the calcareous districts of the West of Ireland.

*S. hypnoides* (Linn.) District 11. The Little Bins, Ballyvicstocker Bay, Donegal; H. C. Hart.

*S. granulata* (Linn.) District 4. On the sandhills south of Mizen Head, Wicklow; D. M. Brittas, 1866; J. Morrison. District 10. On the mound at Rathrillick, Armagh; S. A. Stewart.—12. Plentiful in Belvoir Park; Belfast. Nat. Field Club Report, 1871.

*Cicuta virosa* (Linn.)—9. Plentiful in Lough Bofin, Leitrim; W. T. Dyer.—10. In Cavan and Fermanagh; Annot. in Threlkeld, apud R. I. A. Sparingly at Dartry, Monaghan; M. Dowd.

*Apium graveolens* (Linn.) District 6. In Great Aran Island; Dr. E. P. Wright (but only seen here near cottages; H. C. Hart.) District 12. Near Belfast, etc.; Flor. Ulst. and Flor. Belfast.

† *Ægopodium Podagraria* (Linn.)—4. Clonass and Verona, Wexford. Miss E. M. Farmer.

*Carum verticillatum* (Koch).—1. Plentiful a little north of Kenmare; A. G. M.

*Pimpinella magna* (Linn.)—2. Abundant near Buttevant, Charleville, Kilcomer, and Doneraile; Rev. T. Allin.

*Sium latifolium* (Linn.)—7. East side of the Shannon at Portumna Bridge; M. Dowd.

*S. angustifolium* (Linn.)—4. Curacloa, Wexford; Miss E. M. Farmer.

—5. In the Canal near the North Strand, Dublin; M. Dowd. District 10. In the County Fermanagh; Mackay Bar.

*Eranthe Phellandrium* (Lam.) District 7. Common about Parsonstown; also at Oldcastle, Westmeath; M. Dowd.

† *Aethusa Cynapium* (Linn.) District 7. Parsonstown; M. Dowd.

‡ *Feniculum officinale* (All.)—12. On both sides of Killough Bay, Down; S. A. Stewart.

*Haloscias scoticum* (Fries).—11. Plentiful on rocks in Downing's Bay, near Carrigart; also at Dunaff Head; H. C. Hart.—12. Donaghadee and Copeland Isles; Templeton.

‡ *Pastinaca sativa* (Linn.)—2. Near Ardmore, Waterford; Rev. T. Allin. District (11.) Donegal Castle; H. C. Hart.

*Torilis nodosa* (Gaert.)—4. Valley of Diamonds, Bray; R. M. Barrington.—6. Isles of Aran; H. C. Hart.—12. Frequent on the coast of Down; S. A. Stewart. Dunseverick; R. Tate.

*Scandix Pecten-Veneris* (Linn.) District 7. Parsonstown; M. Dowd.

† *Anthriscus vulgaris* (Pers.)—2. Sparingly on a wall near some farm buildings at Ballyvadock; Rev. T. Allin. District 3. Roadside between Browne's Hill and Carlow; and near Ballinacarrig; R. Clayton Browne. Roadside between Mountrath and the railway station; T. Chandlee. District 6. About Kilonan, Aran; H. C. Hart.

*Cherophyllum temulum* (Linn.)—5. Hedge near Old Connaught; R. M. Barrington. District 7. Roadside one mile north of Oldcastle, Westmeath; M. Dowd.

*Conium maculatum* (Linn.) District 7. Parsonstown; M. Dowd.

*Hedera Helix* (Linn.) The so-called "Irish" Ivy has not yet been found growing in any place where it can be considered native. The Ivy of Kerry and Aran is only typical *H. Helix*.

*Cornus sanguinea* (Linn.)—6. On all three Isles of Aran, especially by the shore west of Killeany; H. C. Hart.—10. Banks of the Colebrooke river, Fermanagh, apart from any shrubberies; T. O. Smith.

‡ *Sambucus Ebulus* (Linn.) District 7. Roadside between Parsonstown and Frankford; M. Dowd.

*Galium cruciatum* (Linn.) District 12. This plant was recorded in the "Antient and Present State of the County of Down," 1757, as occurring then "among the rubbish of the Cathedral of Downpatrick;" and the authority "Is. Butler" is added after these very words by the Annotator in the copy of Threlkeld belonging to the library of the Royal Irish Academy. It was rediscovered about 1842 by Professor J. E. Hodges, at the bottom of a field adjoining the marshes near the Cathedral, and on the side of the old Rath; as we learn from a letter addressed to W. Thompson in June, 1842, and for the knowledge of which we are indebted to our active correspondent Mr. S. A. Stewart. Again gathered in 1868, by the Rev. W. E. Mulgan, who has observed it for the last few years growing in a field near Downpatrick Cathedral. District 10. Plentiful in boggy ground by the side of a small lake at Colebrooke, Fermanagh, 1869 (found by Mr. T. O. Smith); H. C. Hart.

*Galium boreale* (Linn.)—9. By Lough Bofin, Leitrim; W. T. Dyer.  
12. By the river in Glenarm Deer park; R. Tate.

*G. erectum* (Huds.) District (2.) Sparingly in two lawns near Middleton and Ballinacurra, introduced; Rev. T. Allin.—5. In the demesne at Kilkea Castle! J. Douglas.

*G. Mollugo* (Linn.) District 4. By the avenue at Vallumbrosa, Bray; R. M. Barrington.—5. Near Kilkea Castle, Kildare; J. Douglas.

*G. uliginosum* (Linn.) District 7. On a bog near Multifarnham, Westmeath, sparingly, 1871 and 1872; D. M. District 12. In the County of Antrim; Rev. W. M. Hind (in Herb. Trinity College); Dr. E. P. Wright.

[*Valerianella carinata* (Lois.) District 10. Abundant on hedgebanks for a mile along a bye-road crossing Holywood Hill, near Dundonald, Co. Down; S. A. Stewart, 1871. If permanent in this locality, it will deserve to be considered a "Colonist;" for the present it ranks as a "Casual" only].

*V. Auricula* (D. C.)—2. Little Island, Cork, and frequent in both divisions of the County; Rev. T. Allin. Also in fields at Doughtans, Waterford; *idem*.

*V. dentata* (Deitr.)—3. Noreville, Queen's County; J. Morrison.—12. Carnlough; R. Tate. Island Magee and near Dundonald; S. A. Stewart.

*Dipsacus sylvestris* (Linn.)—2. Fields near Youghal; Rev. T. Allin. Abundant by the old road between Ross and Waterford; J. Morrison. District 4. By the road from Horetown, and Whitechurch, and Kilmockea, Wexford; Miss E. M. Farmer. Duncannon; R. M. Barrington.

*Knautia arvensis* (Coul.) District 11. Fields near Lough Esk, Donegal; H. C. Hart.—12. Between Randalstown and Cookstown Junction; R. Tate.

*Erigeron acris* (Linn.)—3. Mountmellick; J. Morrison.—5. About Mullaghchreelan Hill, Kildare; J. Douglas.

†*Inula Helenium* (Linn.)—1. Near the ruins on Church Island in Lough Currane, Waterville; A. G. M. Frequent in Cork, and particularly in the islands of Cape Clear; Annot. in Threlkeld. District 11. The Little Bins Greenfort, Fanet; H. C. Hart.

*Inula crithmoides* (Linn.)—2. Rocks at Ardmore, Waterford; Rev. T. Allin.

*Bidens tripartita* (Linn.) District 3. Castle Blunden, Kilkenny; Rev. S. Madden.

†*Anthemis arvensis* (Linn.)—5. Plentiful in sandy cultivated ground at Portmarnock, 1869; A. G. M.

*Diotis maritima* (Cass.) District 4. Near Carnsore Point, Wexford; (John Waddy), Symes' Engl. Bot.

*Artemisia maritima* (Linn.)—5. On a low muddy point south side of the estuary of the Boyne below Drogheda, and sparingly on the adjacent shore; A. G. M.

\**Tanacetum vulgare* (Linn.) District 6. Middle Island of Aran; H. C. Hart.

*Filago minima* (Fr.)—4. Roadside near Drumgoff, and on the Murrough of Wicklow; A. G. M.—12. Sands east of Portrush; R. Tate.

*Gnaphalium sylvaticum* (Linn.) District 3. In the county of Carlow; Threlkeld. On high ground near Myshall, Carlow; R. Clayton Browne. District 4. In our walk towards Powerscourt; Annot. in Threlkeld. Near Shillelagh, Wicklow; H. C. Hart. District 11. Near Milford and Fanet, Donegal; Rev. T. Allin.—12. Ballintoy; R. Tate.

*Antennaria dioica* (Gaert.)—3. Near the Black Bog, Carlow; R. Clayton Browne. Wet pasture at Ashbrook, Queen's County; J. Morrison.

*Senecio crucifolius* (Linn.) District 4. Near Bray; D. M. Old Court near Bray; R. M. Barrington.—5. Castleknock, Lucan, Stillorgan and Tallaght; A. G. M.

*S. Jacobæa* (Linn.) Var. without rayed florets. *S. flosculosus* (Jordan). On several parts of the coast, but local. District 1. Ferriter's cave, Kerry; A. G. M. District 2. Near Tramore, Waterford; J. Woods in "Phytologist." District 4. Near Churchtown, Wexford (J. Waddy); Symes' Engl. Bot. District 5. Sandhills between Gormans-town and Maiden Tower, in many places; A. G. M. 6. In Great Aran; D. Oliver. Frequent in Aran, but the ordinary form occurred in one field only; H. C. Hart. District 8. On several islands off Connemara; A. G. M.

\**S. squalidus* (Linn.) The supposed hybrid between this and *S. vulgaris* (Linn.) proves to be the rare variety of *S. vulgaris* with ligulate florets, which has also been found by Mr. N. Moore at Lough-an-nure, Donegal.

\**Senecio saracenicus* (Linn.)—1. Roadside at Bantry; Rev. T. Allin. District 5. Near Clonskeagh, Dublin; Annot. in Threlkeld. District 6. Near Corrofin, Clare, and in Pallas, Galway; K'Eogh, p. 108.—12. By the river near C. G. Station at Cushendall; Dr. J. S. Holden.

*Carlina vulgaris* (Linn.)—3. Near the Black Bog, Carlow; R. Clayton Browne.—4. Near Courtown; Miss E. M. Farmer. Near Enniscorthy; J. Morrison.

*Arctium majus* (Schk.) Mr. Allin has not succeeded in finding this plant in the county of Cork, and we have as yet seen no Irish specimens. Professor C. C. Babington informs us that his specimen is too imperfect to be considered quite satisfactory.

*A. intermedium* (Lange). *A. pubens* (Bab.) District 6. In the Isles of Aran; H. C. Hart.—12. Common on the coast of Antrim, where *A. minus* has not been observed; R. Tate.

*Centaurea Scabiosa* (Linn.) District 4. At Greystones near the church; Mrs. G. Dixon. Roadside near Greystones; Rev. J. H. Jellett. Shore at Kilkool; H. C. Hart.—6. Between Galway and Athenry; S. A. Stewart. Common in all three Isles of Aran; H. C. Hart.

[*Centaurea paniculata* (Lam.) A single plant in a cultivated field



on the coast north of Rush; M. Dowd, 1870. No doubt accidentally introduced.]

*Carduus tenuiflorus* (Curt.)—3. Near Garryhundon, Carlow; R. Clayton Browne.—5. Roadside banks near the Hill of Tara; A. G. M.

*Carduus arvensis* (Curt.) [Var. *setosus* (M. B.)—11. In a stubble-field by the River Lennon, near Kilmacrenan, Donegal; Rev. T. Allin. The curious plant, gathered by Mr. Allin, at first sight looks like some hybrid, but it has the essential character of *C. arvensis*. The leaves are shaped somewhat like oak leaves]

\**Silybum Marianum* (Gaert.) District 6. On great Aran Island; H. C. Hart.—12. Port Bradden and Toome Bridge and shores of Lough Neagh, three miles from Toome; S. A. Stewart.

†*Cichorium Intybus* (Linn.)—2. Field by the Blackwater, in Waterford; Rev. T. Allin. District 3. Near Ballyonskill, Kilkenny; Rev. S. Madden.—4. Occasionally at Fassaroe, near Bray; R. M. Barrington.—12. On the mountains of Mourne; Harris' Hist. of Down.

*Thrinacia hirta* (D. C.) District 3. Common about Carlow; R. Clayton Browne. District 7. Frequent about Parsonstown; M. Dowd. District 12. Near Newtown-Breda and banks of Laggan, above Ward's Cottage! D. Orr. The last is the station given for *Apargia hispida*, in "Flora Belfastiensis."

Var. *arenaria* (D. C.) Seaside sandhills at Courtown, Portrairie and Gormanstown; A. G. M.

*Apargia hispida* (Willd.)—4. Roundwood, and—5. Lucan; A. G. M. Never seen in the north of Ireland by Mr. D. Orr, who believes that *T. hirta* has often been mistaken for it.

*Tragopogon pratensis* (Linn.) District 3. Woodstock, Kilkenny; Miss E. M. Farmer.—4. Near Rathnew, Wicklow (*T. majus*); A. G. M. Fassaroe; R. M. Barrington.—5. Common at Straffan and Kilkea; J. Douglas.

*Helminthia echioides* (Gaert.)—2. Near Youghal; Rev. T. Allin. District 12. Shore at north end of Island Magee, opposite Larne, Antrim; S. A. Stewart and R. Tate. Shore of Belfast Bay, half a mile above Blackhead; S. A. Stewart.

*Leontodon Taraxacum* (Linn.) Var. *palustre* (Sm.) District 10. Occasionally in Tyrone; Dr. Sigerson.—12. Shores of Lough Beg (*T. udidum*! Jordan); S. A. Stewart.

*Sonchus asper* (Hoffm.) District 11. Fanet, Donegal; H. C. Hart.

†*Crepis* (*Barkhausia*) *taraxacifolia* (Thuil.) *C. biennis* (Flor. Hib.

—5. This plant is still spreading, with every appearance of an introduced species, in the neighbourhood of Dublin. Raheny; H. C. Hart. At Portmarnock and Malahide; Hedgebanks, near Lucan, Quarry near Finglas-wood; and on the south side of Killiney Hill; A. G. M. Vallumbrosa, near Bray; R. M. Barrington.

[*C. setosa* (Hall). Field between Browne's Hill and Carlow! 1867; R. Clayton Browne].

*C. paludosa* (Moench.)—2. By the River Lickey, in Waterford,

and by the river near Middleton, Cork; Rev. T. Allin. District 7. Plentiful in wet pastures north of Oldcastle, Westmeath; M. Dowd.

*Hieracium anglicum* (Fries). District 2. Rocks above Gurthaveha Lake near Millstreet; A. G. M. District 6. On a granite boulder, in Great Aran Island; H. C. Hart.

*H. boreale* (Fries). District 11. Near the mill at Ardara; H. C. Hart.

[*Campanula rapunculoides* (Linn.) Sandhills at Newcastle, Down, about 50 plants in 1871, and, no doubt, introduced; S. A. Stewart. A few plants at the foot of a wall near the harbour of Bray, 1872; A. G. M.]

Obs. *Campanula latifolia* (Linn.) Has not yet been rediscovered on the banks of the Barrow above New Ross, and it is much feared that a mistake was made in the name, especially as Mackay records only *C. latifolia* from the same district where other botanists have found *C. Trachelium* only.

*C. Trachelium* (Linn.)—(4.) In a field near Roundwood, towards the Reservoir; Hon. Mrs. Barton.

*Wahlenbergia hederacea* (Reich.)—1. Banks of a stream west of Macroom (found by Miss J. Harvey); Isaac Carroll. District 5. In Glen-cullen, near the bridge; Greenwood Pim.

*Andromeda polifolia* (Linn.)—3. Common on bogs in Queen's County. Mackay Rar.—7. On Annahinch Bog, near Parsonstown; G. H. Kinahan. Add Districts 6, 7, 9, 10, 12, which were accidentally omitted in the line of figures.

*Erica cinerea* (Linn.) Ascends to 2200 feet on Sawel, Derry; D. M. To 2300 feet on Mangerton, and to 2500 feet on Carn Tual, Kerry; A. G. M.

*Calluna vulgaris* (Salisb.) Ascends to 3300 feet on Carn Tual; A. G. M.

*Erica ciliaris* (Linn.) This must be very rare in the locality near Craigga-more, and neither D. M. nor A. G. M. have been able to find it, but Professor Balfour has kindly sent us a specimen gathered in 1852.

Obs. *Erica vagans* (Linn.) Mr. R. M. Barrington, having been directed by Doctor Burkitt to the exact spot where it was supposed to have been gathered, has made a careful search without finding a trace of this plant: see "Trimen's Journal of Botany," p. 108 (1872.)

*Pyrola rotundifolia* (Linn.) District 7. Sparingly on a large bog near Multyfarnham, Westmeath, 1870; D. M. How's locality, "In a bog by Roscrea," may belong to this species.

*P. minor* (Linn.)—7. In a glen near Tyrrell's-pass; D. M. District 10. Hill of Scraba, near Newtown; Harris's "Down."

*Monotropa Hypopitys* (Linn.) District 9. Hazlewood, Sligo; (found by Miss Wynne) Lord Clermont.

*Ilex Aquifolium* (Linn.) District 10. Near Strabane; Dr. Sigerson.

*Ligustrum vulgare* (Linn.) District (10.) Banks of the Glenmornan river, Tyrone, introduced; Dr. Sigerson.

*Erythraea pulchella* (Fries). District 4. Curacloa, Wexford! J.

Morrison. District 5. On the North Bull! Dublin Bay, in tolerable plenty, October 1867; D. Orr.

*E. Centaurium* (Pers.) District 10. Cloghcor, Tyrone; Dr. Sigerson. The *Var. latifolia* is *E. capitata* (R. et S.)

*Convolvulus arvensis* (Linn.)—6. Plentiful near Limerick; D. M. In the great Island of Aran; H. C. Hart. District 9. In County Sligo; I. Carroll.—10. Fermanagh; Rev. S. A. Brenan. District 11. Fanet, Donegal; H. C. Hart.—12. Glenarm; Dr. J. S. Holden. Between Rathmullan and Tyrella, Down; S. A. Stewart.

*C. sepium* (Linn.) District 10. Enniskillen, Fermanagh; S. A. Stewart. By the Foyle and near Strabane; Dr. Sigerson.

\**Cuscuta Trifolii* (Bab.) District 4. Quite established in clover fields at Fassaroe, near Bray; R. M. Barrington. District 5. Found in 1868, by Dr. W. G. Smith, in a field near the sea-shore at Ballybrack, occupying a space of a few square yards only, and here parasitical upon *Lotus*, *Daucus*, *Linum catharticum*, etc. ("Dub. Nat. Hist. Soc., Proc., vol. v., p. 198.) Once found near Kilkea, Kildare; J. Douglas.

†*Cynoglossum montanum* (Lam.) Probably not native, in the single locality near Balbriggan.

\**Anchusa sempervirens* (Linn.)—11. At Clondevaddock Church, Rossnakill, Fanet; H. C. Hart.

*Lycopsis arvensis* (Linn.)—5. Shore north of Gormanstown, and at mouth of Boyne; A. G. M. District 11. By Lough Swilly, and near the light-house, Fanet; H. C. Hart.

*Echium vulgare* (Linn.)—4. Near Ballycarney and Bloomfield, Wexford; Miss E. M. Farmer. At Fassaroe, near Bray, occasionally; R. M. Barrington.—5. On the warren south of Rush, plentifully; shore at Gormanstown and at Laytown; A. G. M.—12. Curran of Larne; R. Tate. Cushendun, but very rare; Rev. S. A. Brenan.

*Mertensia maritima* (Don).—4. Not now plentiful on the Murrough of Wicklow, but occurs near Newcastle Station, and between Kilcool and the "Breaches;" A. G. M. District 6? Sands at mouth of Creegh river, near Mount Rivers, Clare; "Dublin Penny Journal," iii., 278.

*Lithospermum officinale* (Linn.) District 4. Between Ballymoney and Kiltannel sandbanks; Miss E. M. Farmer. Among bushes on the shore north of Courtown; A. G. M. Fassaroe, Bray; R. M. Barrington.—6. Great Aran Island; H. C. Hart. District 11. Rathmullan and Downing's Bay, Donegal; H. C. Hart, Ballyhooriskey; Rev. T. Allin.

*Myosotis repens* (Don). District 10. Castle Derg, Tyrone; S. A. Stewart.

*Solanum nigrum* (Linn.) District 4. Shore near Churchtown, Wexford, first observed in 1834, and still growing there in 1869; also on sands at Rostonstown; John Waddy.—5. Once seen in the churchyard at Kilkea, Kildare; John Douglas.—12. Sandy ground near Cushendun, from 1867 to 1871; Rev. S. A. Brenan.

*S. Dulcamara* (Linn.)—3 and 4. Occasionally in the counties of Carlow and Wexford; J. Morrison.—4. St. John's, near Enniscorthy;

Miss E. M. Farmer.—11. At Leek, on the farmyard wall, and in a hedge a mile towards Stranorlar; N. Moore.

*Hyoscyamus niger* (Linn.)—3. Browne's Hill, Carlow; R. Clayton Browne. Maryborough, Queen's County; J. Morrison. 4. Bannow, Wexford; Miss Nunn. On the Murrough, a little north of Wicklow; A. G. M.

*Orobanchè rapum* (Thiel.)—5. On a hill south of Rathfarnham; Annot in Threlkeld.

*O. rubra* (Sm.)—12. On white limestone at Ballyvoy and White Park, Ballintoy; R. Tate.

*O. Hederæ* (Duby.)—9. Hazlewood, Sligo; D. M.

[*O. minor* (Linn.) District 4. On clover in two fields at Springhill, Enniscorthy, 1868; J. Morrison. A single plant next a Sweet Pea in the garden at Bloomfield, and another single plant on clover by the avenue at Bloomfield, 1867; Miss E. M. Farmer. Scarcely yet established as a naturalized plant].

*Lathræa Squamaria* (Linn.)—2. Plentiful for a long distance along the banks of the Blackwater, below Mallow, parasitical on *Ulmus montana* only, avoiding Beech, Horse Chestnut, Alder, and Sycamore; A. G. M. District 7. In woods at Parsonstown, but rather scarce; M. Dowd. District 9. In County Roscommon! Miss Acton.—10. Whitepark, Fermanagh; T. O. Smith.

*Verbascum Thapsus* (Linn.) District 11. Between Ballyshannon and Donegal; H. C. Hart.

\**V. Blattaria* (Linn.)—4. On rough stony ground a little north of Wicklow; A. G. M.

*Antirrhinum Orontium* (Linn.)—2. Fields near Tower Village, Blarney (found by Mr. R. Mills); Rev. T. Allin.

*Linaria Elatine* (Mill.) District 4. Between Bannow and Ballymadder, Wexford; R. M. Barrington.—6. Roadside near Ballyvaughan, Clare; Rev. T. Allin.

*L. minor* (Desf.)—3. Browne's Hill, Carlow; R. Clayton Browne. Railway embankments near Carlow, not Enniscorthy; J. Morrison.—5. Near Sydney Parade Station, 1867; V. A. Smith. Straffan, Kildare; J. Douglas.

*L. repens* (Ait.)—5. Perhaps introduced at Bushy Park; D. M.; and the locality near Carlow requires confirmation.

*L. vulgaris* (Mill.)—3. Garryhill, Carlow; R. Clayton Browne. 4. Frequent near Enniscorthy; Miss E. M. Farmer.

*Scrophularia aquatica* (Linn.) District 3. Kilmacow, Kilkenny; T. Chandlee. District 11. Drimnacaraig and in Fanet; H. C. Hart.

*Melampyrum pratense* (Linn.) District 3. Banks of the Slaney; R. Clayton Browne.

*M. sylvaticum* (Linn.)—12. Crow Glen, Belfast; S. A. Stewart.

[*Mimulus luteus*. (Willd.)—4. In the Dargle River, near Enniskerry; A. G. M.—10. On waste ground near the Glenmornan River, Tyrone, two or three plants only; Dr. Sigerson.—12. Banks of the Bann, between the Cuts and Coleraine; S. A. Stewart].

*Pedicularis sylvatica* (Linn.) District 11. Common about Horn Head; N. Moore, and in Fanet; H. C. Hart.

*Rhinanthus Crista-galli* (Linn.) District 10. Enniskillen, Fermanagh; S. A. Stewart.

*Veronica officinalis* (Linn.) District 10. Sperrin Mountains, Tyrone; S. A. Stewart.

\**Veronica peregrina* (Linn.) District 9. Demesne at Rockingham, Roscommon, and in the garden and demesne at Hazlewood, Sligo; D. M. District 11. Salthill Garden, Mount Charles, and Kilderry, Muff, 1870; H. C. Hart. Gweedore; Rev. W. M. Hind. Not found in District 6.

\**V. Buxbaumii* (Ten.) District 11. Rathmullan; H. C. Hart.

*V. hederifolia* (Linn.) District 7. Parsonstown; M. Dowd.

†*Mentha sylvestris* (Linn.) District 2. Roadside near Timoleague, 1871; Rev. T. Allin.

†*M. rotundifolia* (Linn.)—2. Fields near the Blackwater, Waterford; Rev. T. Allin. District 6. Roadside banks between Galway and Oranmore; S. A. Stewart. Cultivated in the garden of the Atlantic Hotel, at Kilonan, Aran; A. G. M.—8. Plentiful near a cottage at Ballinaderg Bridge, at foot of Nephin; H. C. Hart.

\**M. piperita* (Sm.)—2. Near the river at Middleton, plentifully; Rev. T. Allin.

*M. sativa* (Linn.) District 11. Near Croagross, Fanet; H. C. Hart. Ditto var. *rubra* (Smith).—4. Clohass Bog and Bloomfield; Miss E. M. Farmer.

*M. arvensis* (Linn.) District 3. Mountrath, Queen's County; J. Morrison. District 10. Near Liscurry, Tyrone; Dr. Sigerson. District 11. Near Cloghanealy; N. Moore. Fanet; H. C. Hart.

*M. Pulegium* (Linn.)—2. Abundant near Kilcoleman; Rev. T. Allin.

[*M. Requienii* (Benth.) The Corsican Mint has been observed by the Rev. T. Allin, growing abundantly in the street of Castle Townsend, evidently an escape from cultivation].

*Salvia Verbenaca* (Linn.)—2. Near Red Strand, Clonakilty; Rev. T. Allin.

*Calamintha officinalis* (Moench.)—2. Near Blackwater, Waterford, and abundant on limestone in North Cork; Rev. T. Allin.

Obs. *Calamintha Nepeta* (Clairv.) Must be struck off the Irish list, as Professor Babington informs us that his specimen belongs to *C. officinalis*.

*C. Acinos* (Clairv.)—5. Once found sparingly near Mullaghchreelan Hill, Kildare; J. Douglas. Portraine, 1869; H. C. Hart.

*C. Clinopodium* (Benth.) District 9. On the shore of the lake at Rockingham, Roscommon, 1871; D. M. It is to be feared that many of the localities given for this plant, especially those near Dublin, belong to *C. officinalis*.

*Scutellaria galericulata* (Linn.) District 11. Mulroy and Carrowkeel, Fanet; H. C. Hart.

†*Nepeta Cataria* (Linn.)—5. Ditch near the Curragh of Kildare,

1732; Annotator in Thelkeld, R. I. A. District 7. Roadside near Ballylucnane, Parsonstown; M. Dowd. District 10. Banks of the Colebrooke River, Fermanagh; T. O. Smith. District 11. In a lane from Rowross Ferry to Carrigart, and one plant between Donegal and Ballyshannon; H. C. Hart.—12. Waste ground near Ardglass, Down, perhaps an escape; S. A. Stewart.

*Lamium amplexicaule* (Linn.)—5. Kilkea Castle, Mageny; J. Douglas. District 11. Fanet and Rosnakill; H. C. Hart.

*L. intermedium* (Fries).—12. Along the coast from Magilligan to Belfast, in various places, extending as far south as Newtownards; R. Tate.

†*L. album* (Linn.)—4. Near the bridge at Bray; R. M. Barrington.—5. Common about Kilkea, Kildare; J. Douglas. South shore of the Boyne below Drogheda, and near the Hill of Tara, Meath; A. G. M.

*L. Galeobdolon* (Crantz).—5. Kelly's Glen, on the upper Dodder; W. Archer.

*Galeopsis Ladanum* (Linn.)—4. Every year in wheat crops at Fassaroe, near Bray; R. M. Barrington.

*Stachys Betonica* (Benth.) District 7. Woods near Tullagh, barony of Onagh, Tipperary; K'Eogh. Bot. Hib.

*S. arvensis* (Linn.) District 4. Shillelagh, Wicklow; H. C. Hart. Between Ballymadder and Bannow, Wexford; R. M. Barrington. District 6. In Great and Middle Aran; H. C. Hart. District 11. Frequent in Fanet; H. C. Hart.

*Ballota nigra* (Linn.)—4. Plentiful a few years ago near Enniscorthy; J. Morrison. District 11. Between Salthill and Ardnamona, Donegal; H. C. Hart.—12. Shores of county Down, in several places; S. A. Stewart.

*Teucrium Scordium* (Linn.) District 9. Banks of the Shannon near Lanesborough, vide I. B. (Isaac Butler), Annot. in Threlkeld.

*Pinguicula grandiflora* (Linn.)—2. At Gurthaveha Lake, near Millstreet, sparingly. Ascends to 1800 feet on Carn Tual; A. G. M.

*P. vulgaris* (Linn.)—1. In the Horse's Glen, Mangerton, with *P. grandiflora*, at about 1800 feet; A. G. M.

*Utricularia intermedia* (Hayne).—1. Bog holes near Lough Carragh; Dr. Battersby. Bog near Knockskeagh, Leap; Rev. T. Allin.—11. Near Kindrum Lakes, Fanet; H. C. Hart.

*U. minor* (Linn.) District 2. Dunsfort Bog, near Middleton, Buttevant, and other places in East Cork, frequent; Rev. T. Allin. District 3. Bog of Allen; Wade, *Rar.*

*Hottonia palustris* (Linn.)—12. Plentiful in the drains on the bog meadows, Belfast, where it was planted a few years ago; S. A. Stewart. Dr. P. Browne notes it as found in a watery ditch west of Lough Mask, on the road from Ballinrobe to Westport, but this latter locality requires to be verified before the plant can be admitted as a native of the west of Ireland.

†*Lysimachia Nummularia* (Linn.)—4. Under a bank outside a boggy plantation between Monart-house and Mill-house, Wexford; Miss E.

M. Farmer. 10. River bank, near Ardunshin, Fermanagh; Rev. S. A. Brenan. Banks of the river three miles above Colebrooke; T. O. Smith. 12. Dunminning, near Ballymena; apparently an escape from cultivation; N. Moore. *L. nemorum* has often been mistaken for this species.

*Anagallis arvensis* (Linn.) *Var. cœrulea*. District 5. Sparingly near Kilkea Castle, Kildare; J. Douglas. District 8. Near Belmont, Galway; Dr. W. King.

*Centunculus minimus* (Linn.)—1. Shores of Berehaven; A. G. M. 2. Ballintowtas, near Middleton, Cork; Rev. T. Allin.

*Samolus Valerandi* (Linn.). District 3. Browne's Hill, and on the Black Bog, near Carlow; R. Clayton Browne.

*Statice occidentalis* (Lloyd). District 4. Rocks about two miles north of Arklow, and near the old castle at Wicklow; A. G. M.—5. On the North Bull, Dublin, sparingly, and on the muddy shore of the creek north of Malahide: on the flat shore at the north end of Portraine, and on the drier part of a mud flat at Laytown, in several of these localities accompanied by *S. Bahusiensis*; A. G. M.

*Armeria maritima* (Willd.)—1. On the shores of Ross Island, Kilarney, growing with *Silene maritima*. Ascends to 3400 feet on Carn Tual; A. G. M.

*Plantago maritima* (Linn.) District 8. Frequent on the coast of Connemara, etc.; A. G. M.

[*Plantago media* (Linn.) Reported by Mr. J. Douglas as found by him abundantly in a field and on a furzy bank about one and a-half miles north of Straffan, Kildare; but not having seen any specimens, and not knowing the circumstances under which it occurred, we still hesitate to admit it as a native plant. A variety of *P. lanceolata*, with very broad leaves, occurs about Feltrim Hill, and was, probably, mistaken by Mr. White for *P. media*. This variety has also been sent to us from the north of Ireland, under the name of *P. media*.]

*Littorella lacustris* (Linn.) District 2. Shore of Ballybutler Lake, near Middleton, and at Kilcoleman, Castlemartyr, etc.; Rev. T. Allin.

*Succeda maritima* (Dum.) District 6. Great Aran Island; Dr. E. P. Wright.

*Salsola Kali* (Linn.) District 6. Great Aran Island; *idem*.

*Chenopodium album* (Linn.) District 7. Parsonstown; M. Dowd.

*C. rubrum* (Linn.) District 2. Edge of a bog at Kilcoleman, with *Rumex maritimus*; Rev. T. Allin.

Obs. *C. urbicum* (Linn.) Has not been rediscovered, and we fear that *C. murale* was the plant gathered in Upper Dominick-street.

*Atriplex littoralis* (Linn.) District 6. Great Aran Island; H. C. Hart. District 11. Lighthouse at Fanet; *idem*.

*A. angustifolia* (Sm.) District 6. Aran; H. C. Hart. District 7. Parsonstown; M. Dowd. District 11. Fanet; H. C. Hart.

*A. hastata* (Linn.) District 7. Parsonstown; M. Dowd.

*A. arenaria* (Woods.)—5. Sandy shore at Portraine, and Gormans-

town, and south bank of the estuary below Drogheda, but quite rare ; A. G. M. Not seen on the coast of Antrim by Mr. R. Tate.

*Obione portulacoides* (Moq.)—5. Rocks at south side of, and on the flat shore at north end of Portraine opposite Rush ; also on the south side of the estuary below Drogheda ; A. G. M. Salt marsh on south side of Dundalk Bay ; Templeton.

*Rumex maritimus* (Linn.) District 2. Sparingly on the edge of a bog at Kilcoleman ! Rev. T. Allin.

†*R. pulcher* (Linn.) District 4. On the shore by the harbour at Bray, 1867–72 ; D. M.—5. Shore near the Race-stand at Baldoyle, 1868, very sparingly ; A. G. M.

*R. Hydrolopathum* (Huds.)—2. Abundant near Buttevant, Cork, and Cappoquin, Waterford ; Rev. T. Allin.

†*Polygonum Bistorta* (Linn.)—3. In Captain Mitchel's ground by the brook near Stradbally, 1732 ; Annot. in Threlkeld. This is, probably, the very same locality where it was observed by Mr. Chandlee 130 years later.

*P. Ravi* (Bab.)—1. Sandy point at entrance to the harbour of Ard-groom, Cork ; A. G. M.—5. Shore north of Gormanstown ; A. G. M.

\**Hippophae rhamnoides* (Linn.) District 4. Thoroughly established on the sandhills at Kiltennel, north of Courtown, Wexford, where Miss Farmer has ascertained that it was planted about thirty years ago. Mr. J. Morrison informs us that this shrub grows also on the sandy shores at Raven Point, near Wexford Harbour. (5). Planted at Rush.

*Empetrum nigrum* (Linn.) District 3. Plentiful on Mount Leinster, on the borders of Carlow and Wexford ; R. Clayton Browne. District 7. Tops of mountains four miles from Parsonstown ; M. Dowd. District 10. Sperrin mountains, Tyrone ; S. A. Stewart. Occurs on many of the mountains near Killarney and on Connor Hill ; A. G. M.

*Euphorbia hyberna* (Linn.) District 11. Among large rocks and bushes on the south side of the Poisoned Glen, Dunlewy, Donegal, in no great quantity ; N. Moore, 1867—thus confirming the accuracy of Robert Brown's observation. This spurge flowers in the early Spring, commencing often in the middle of April. It frequently grows on open rocky banks, and among heath on the mountains, ascending to 1500 feet or more in the Horse's Glen, Mangerton ; A. G. M.

*E. amygdaloides* (Linn.) District 4? A single plant has been observed for several years past growing in ground now cultivated on the site of a former wood near Springhill, Enniscorthy ; J. Morrison. Whether a recent introduction, or a relic of a former wild station, cannot be determined, but this, at least, indicates that the plant should be sought in the neighbourhood of Enniscorthy.

*E. portlandica* (Linn.)—1. Derrynane, Kerry, sparingly ; A. G. M. Rosscarbery, Clonakilty, and Castlefreke, Cork ; Rev. T. Allin.—4. Sandhills at Courtown and Arklow ; A. G. M. District 6. Great and Middle Aran ; H. C. Hart.—11. Kindrum, Donegal ; *idem*.

*Mercurialis perennis* (Linn.)—10. In the lower demesne at Tandragee, plentiful in one spot ; R. M. Barrington.



*Ceratophyllum demersum* (Linn.)—2. Blarney Lake (found by R. Mills); Rev. T. Allin.—12. In the Quoile river, Downpatrick; S. A. Stewart. Not found in Lough Neagh, which was given in mistake for Lough Leagh, near Killaleagh, Down, where the plant was found by Templeton in 1804.

*Callitriche autumnalis* (Linn.) District 1. By the shore of Ross Island, Lower Lake of Killarney, 1866; A. G. M. This will alter the latitude from 53° to 52°, and is the most southern locality in the British Islands.—12. Carrickmannan Lake, near Saintfield, Down; S. A. Stewart.

*Salix pentandra* (Linn.) District 3. Many scattered trees in the uncultivated country between Mountmellick and Tullamore; J. Morrison.—9. In hedges and by ditches in Glen Iff, Ben Bulbin; W. T. Dyer.—12. Common in the Tickmacrean district, Glenarm; R. Tate.

\**S. purpurea* (Linn.) *Var. Helix* (Linn.) District 9. Glen Iff, Ben Bulbin, and near Drumod, but planted; W. T. Dyer.

*S. phyllicifolia* (Linn.) District 9. North side of Ben Bulbin; D. M. This is the willow given in our "Contributions," under the name of *S. procumbens*, which must now be expunged.

*S. ambigua* (Ehrh.) District 8. Tully, Connemara; Professor C. C. Babington.

*S. Grahami* (Borr.) District 11. Among moss on the top of Muckish Mountain, Donegal, 1868; D. M. Mr. Leefe considers this little willow very closely allied to the continental *S. retusa* (Linn.)

*S. herbacea* (Linn.)—1. On Carn Tual at 2650 feet; A. G. M.—8. On Lettery Mountain, etc., in Connemara; Mackay, Rar. The height of 1000 feet, at which this plant grows, on the top of Clontygearagh Mountain, Derry, is lower than any elevation at which it has been observed anywhere else in Great Britain.

*Quercus Robur* (Linn.) *Var. sessiliflora* (Sm.) District 1. Killarney; A. G. M. District 10. Banks of the Glenmornan river, Tyrone; Dr. Sigerson.

‡*Tamus communis* (Linn.) District 9. On a bushy hill rising from Lough Gill, looking eastwards, and within the demesne of Hazlewood; Dr. T. E. Little, 1866. Abundantly in a wood on the shore of Lough Gill, far from any house or garden; W. Heron, 1868. Seen in this locality by D. M., in 1871, but was very probably planted there by the late owner of Hazlewood, who was very fond of introducing new plants in his demesne. *Tamus* is not mentioned in the late Mr. Wynne's own list of the plants seen by him in Sligo, and yet it could hardly have escaped his observation at Lough Gill.

\**Anacharis Alsinastrum* (Bab.) *A. canadensis* (Planch.) District 4. Ponds at Hollybrook, Bray; R. M. Barrington. Is rapidly extending along the canals and rivers throughout nearly all Ireland.

*Orchis Morio* (Linn.)—8. Foot of Urrisbeg mountain near Roundstone; W. T. Dyer.

*O. pyramidalis* (Linn.) District 1. Meadow near Passage, and on sandhills near Castlefreke; Rev. T. Allin.—3. Common about Carlow;

R. Clayton Browne.—4. Sandhills north of Arklow; A. G. M. District 11. Near Kindrum Lake, Fanet, Donegal; H. C. Hart.

*Gymnadenia albida* (Rich.)—6. Two miles north-west of Woodford, Galway; M. Dowd.—9. Bruse Hill, near Mohill, Leitrim; the late F. J. Foot.

*Neotinea intacta* (Reich.)—6. Has been gathered every year since 1864 in the original locality, but has not yet been found anywhere else near Castle Taylor, except in the one large pasture field in which it was first discovered. District 9. On the north-east shore of Lough Corrib, not far from Cong, April, 1872; D. M. Flowers early, commencing at the end of April.

*Habenaria bifolia* (R. Br.)—4. Marshes near Newcastle, Wicklow; A. G. M.—7. Near Parsonstown; M. Dowd. This appears to be a scarce plant, while *H. chlorantha* is very frequent, especially in heathy districts, ascending to 700 or 800 feet.

*Ophrys apifera* (Huds.)—4. Sandbanks at Kiltannel and Courtown, Wexford; Miss E. M. Farmer.

*Spiranthes autumnalis* (Rich.)—1. Three Castle Head, Cork; T. Chandlee.—2. Near Lecky, and by the Blackwater, Waterford; Rev. T. Allin.

*Spiranthes Romansoviana* (Cham.) This is the name now adopted by Prof. Asa Gray, and Dr. Hooker, in preference to *S. gemmipara*. The plant still grows in many of the meadows and pastures near Castletown, commencing to flower from the middle of July.

*Listera cordata* (R. Br.)—4. On the mountain side south of Lough Nahanagan, Wicklow; A. G. M.—5. Kelly's Glen; C. Ball.—11. Hills near Rathmullan, Donegal; H. C. Hart.

*Neottia Nidus-avis* (Rich.) District 7. Woods at Rockingham, Roscommon; D. M. District 9. Hazlewood, Sligo; D. M. District 11. Ards woods, Donegal! M. Murphy.

*Epipactis latifolia* (All.) District 11. Mount Charles, Donegal; H. C. Hart.

*Cephalanthera ensifolia* (Rich.)—1. Wood near Lickeen House, at head of Lough Carragh; Dr. Battersby. Wood by the Kenmare road from Killarney; A. Balfe. Near Derrycunihy cascade; A. G. M.

*Malaxis paludosa* (Sw.)—5. Marshy places about Kelly's Glen, along the River Dodder; Templeton.—12. Bog on Fair Head, Antrim; S. A. Stewart.

†*Sisyrhynchium anceps* (Lam.) *S. Bermudiana* (Linn.)—6. Abundant in marshy meadows and pastures along the river on both sides, for four miles, from Woodford to Rossmore, forming conspicuous blue patches among the grass, and with every appearance of a native. Also in fields by the road from Woodford to Portumna, and on a hill half a mile N. E. from Woodford; M. Dowd, and Prof. E. P. Wright, 1870. The plant grows here in such profuse abundance that it seems hypercritical to challenge its indigenous origin; still, when we see how inexplicably it has originated, how abundant it has become within a few years, and what a strong hold it has taken of the ground at Brisbane,

Queensland, as recorded by Mr. C. Prentice, in Trimen's Journal of Botany, Series 2, vol. i., p. 22 (1872); and considering that in England also it has lately become well established in Hampshire, we may well hesitate to accept the "Blue-eyed grass" of Canada as an indubitable native of Ireland. If the locality in which it occurs is nearly as restricted as that of the *S. piranthes* at Berehaven, at least the Orchid lies, like all the other American and Iberian plants, quite close to the shore, and is a species of whose introduction or rapid extension we have not any experience.

†*Iris fœtidissima* (Linn.) A very doubtful native of Ireland, where it seems to have been formerly much cultivated, nor are we acquainted with any locality where it grows in a really natural manner.

*Asparagus officinalis* (Linn.)—4. Sandhills in Ballyteigue Bay, Wexford; Mr. Lewis.

†*Allium Babingtonii* (Borr.)—6. In all three of the Islands of Aran; H. C. Hart.

*A. vineale* (Linn.)—3. Banks of the Nore, near Inistioge, Kilkenny; Tighe.

*Simethis bicolor* (Kunth).—1. Certainly indigenous at Derrynane, where it grows on boggy, heathy, and turf slopes, far away from the Abbey ruins, amidst heather and *carices*, etc.

*Eriocaulon septangulare* (With.)—1. Bog-holes at north end of Lough Carragh, Kerry; Dr. Battersby. First found by Dr. Wade in 1801, as shown by a letter from him to Smith, in the Library of the Linnæan Society. In the Cloonee, not Cromeen, Lakes, Kerry.

*Juncus acutus* (Linn.)—1. Plentiful in the warren at Rosscarbery, and a few plants on Castlefreke sands; Rev. T. Allin.—4. At the mouth of the Kilgorman river, north of Courtown, Wexford, and on sandhills thence to Arklow; also north of Arklow in Brittas Bay, and near Mizen Head, etc., as far as Seapark House, where both it and *Equisetum Moorei* appear to cease. Flowers early in June, several weeks before *J. maritimus*.

*J. obtusiflorus* (Ehrh.)—1. Near Dingle, Kerry; D. M. District 8. Boggy slopes at foot of Urrisbeg Mountain, Connemara; A. G. M.

*J. squarrosus* (Linn.) District 10. Sperrin Mountain, Tyrone; S. A. Stewart. Ascends to 2700 feet on Mangerton, and to 3300 on Carn Tual; A. G. M.

*Luzula sylvatica* (Bich.) Reaches 3400 feet on Carn Tual; A. G. M.

*Butomus umbellatus* (Linn.)—2. Ballycotton Bog, and abundant near Buttevant; Rev. T. Allin.—7. In the Brosna at Parsonstown; M. Dowd.

*Sparganium natans* (Linn. et Fries).—11. Lakes near Keel, Donegal; H. C. Hart.

*S. minimum* (Fries). District 7. Near Parsonstown; M. Dowd. District 10. In a lake near Drum, Clones; J. Bain.

\**Acorus Calamus* (Linn.) District 12. Lakes at Hillsborough and Ballinahinch, Down, but most probably planted there; Templeton. Profusely on both sides of the Lagan, for six or seven miles between

Lisburn and Moira, Down; S. A. Stewart, 1866. This is an artificial cut, and the plant does not grow in Lough Neagh, nor in the river whence the Lagan Canal is drawn. Dr. Patrick Browne, in 1788, was aware of its occurrence in the county of Down, but does not give any special locality. According to the best authorities, *Acorus Calamus* is nowhere native in the west of Europe.

*Potamogeton rufescens* (Schräd.)—2. Plentiful in the Blackwater at Buttevant; Rev. T. Allin. District 3. Ditch near Mountrath, Queen's County; J. Morrison.

*P. polygonifolius* (Pourr.) *Var.* with long, thin, narrowly-lanceolate submerged leaves; *var. pseudo-fluitans* (Syme.)—8. Plentiful in lakes and streams at Ballinahinch, Connemara; A. G. M. This is the plant doubtfully given in our book as *P. lanceolatus*, and is very characteristic of streams connected with lakes in mountainous districts. The long submerged leaves are very like those of *P. sparganiifolius*.

*P. Lonchites*, "Tuck" (Syme), in "English Botany." District 5. In the Boyne below Navan. By this name Doctor Syme designates the *Potamogeton* from the Boyne, which we have doubtfully referred to *P. heterophyllus*.

*P. lucens* (Wulf). District 7. In the Brosna, near Parsonstown; M. Dowd. *Var. decipiens* (Nolte.) District 5. In the Canal at Navan; Charles Bailey, 1868.

*P. crispus* (Linn.) District 11. Kindrum Lakes, Fanet; H. C. Hart.

*P. gramineus* (Linn.) *P. obtusifolius* (M. et K.)—2. Bogs near Youghal and Charleville, and in Ballybutler Lake, Cork; Rev. T. Allin.—10. Near Drum, Clones; J. Bain.

*P. pusillus* (Linn.) District 7. Common near Parsonstown; M. Dowd. District 10. Strabane Canal and Ballymagorry, Tyrone; Dr. Sigerson. District 11. Kinlough, Fanet; H. C. Hart.

*P. pectinatus* (Linn.) District 6. Aran Island; H. C. Hart.

*Zannichellia palustris* (Linn.) District 11. Glen Head, Donegal; H. C. Hart.

*Najas flexilis* (Rostk.)—8. In 1869, I found it only in Lough Cregduff, three-quarters of a mile west of Roundstone, and it is probable that this is the same lake in which Prof. Oliver discovered it, and the only locality yet found in Ireland; A. G. M.

*Scheuchzeria palustris* (Linn.) District 3. Black Bog and Sandbrook near Ballon, Carlow; R. Clayton Browne.

*Cladium Mariscus* (R. Br.) District 3. Black Bog near Carlow, and Ardristan Bog near Tallow; R. Clayton Browne.

*Eleocharis uniglumis* (Link.)—4. On the sandhills near Arklow; A. G. M. District 5. On the shore east of Dollymount, opposite the North Bull, Dublin; M. Dowd. District 12. Shore half a mile below Bangor, Down; S. A. Stewart.

*E. multicaulis* (Sm.) District 10. Near Drum, Clones; T. Bain.

*Scirpus sylvaticus* (Linn.)—2. Banks of the Owley River near Kilcomer; Rev. T. Allin.—12. Deer Park, Glenarm; R. Tate.

*S. lacustris* (Linn.) District 3. Plentiful in the Barrow ; R. Clayton Browne. District 7. Plentiful in the Brosna ; M. Dowd.

*S. pauciflorus* (Lightf.)—5. Marshes on Howth, 1870 ; M. Dowd, thus confirming Mackay in Cat. Ir. Plentiful, with *Blysmus rufus*, on the North Bull, Dublin. Also on the shore east of Dollymount, and between Baldoyle and Portmarnock. Shore south of Balbriggan, with *Schaenus nigricans* ; A. G. M.—9. About Ben Bulbin ; D. M.

*Scirpus parvulus* (R. et S.) District 4. Abundant at Arklow, on soft mud, overflowed at high tide on the north side of the River Ovoca ; A. G. M., July, 1868 (Journal of Botany, vol. vi., 1868).

*S. setaceus* (Linn.) District 3. Eastern slopes of Slieve Margy, Queen's Co. ; R. Clayton Browne. District 6. Aran Isles ; H. C. Hart.

*S. Savii* (S. et M.) District 2. Plentiful near Middleton, Cork ; Rev. T. Allin. District 6. Aran Isles ; H. C. Hart.

*Blysmus rufus* (Pang.)—5. Abundant on the North Bull, opposite Dollymount ; A. G. M. Flowers early in June.—12. North side of Ardglass Bay, Down ; S. A. Stewart.

*Eriophorum latifolium* (Hoppe.) District 8. Bog on the north-west side of Urrisbeg mountain, near Roundstone, growing with *Erica mediterranea*, 1869 ; A. G. M.

Obs. *Eriophorum alpinum* (Linn.) Was announced in 1866, as having been gathered by Mr. Ryder on the north shore of Gurthaveha Lake, near Millstreet, county Cork (Dublin Nat. Hist. Soc. Proceedings, vol. v., p. 112), but it is now believed that some mistake was made, as the plant cannot be found in the alleged locality. (See Report of British Association, 1871, Section D, p. 129.)

*Carex dioica* (Linn.) District 10. By the River Derg in Tyrone ; S. A. Stewart.

*C. pulicaris* (Linn.) District 3. Black Bog near Carlow ; R. Clayton Browne. District 10. Castle Derg, Tyrone ; S. A. Stewart.

*C. arenaria* (Linn.) District 6. Great Island of Aran ; H. C. Hart.

*C. divisa* (Huds.)—5. Nearly extinct in the station discovered by D. M., but two large and flourishing patches were found (1871) in a damp meadow close to the Glass Works on the north bank of the Liffey ; A. G. M.

*C. vulpina* (Linn.) District 6. In all three Isles of Aran ; H. C. Hart. District 7. On margins of stony lakes near Parsonstown ; M. Dowd.

*C. muricata* (Linn.)—2. Not rare about Middleton and Buttevant ; Rev. T. Allin.—4. Fassaroe, near Bray ; R. M. Barrington. District 12. Sparingly at Macedon Point, Belfast Bay, with *Hypericum hirsutum* ; S. A. Stewart.

*C. divulsa* (Good.)—1. Muckcross, Killarney ; A. G. M. Near Bantry ; Rev. T. Allin. District 3. Browne's Hill, Carlow ; R. Clayton Browne.—5. Near Feltrim Hill ; Castleknock and Celbridge ; A. G. M.

*C. teretiuscula* (Good.)—7. Plentiful in a large bog near Multyfarnham, Westmeath ; D. M.—9. Bog near Clonhugh railway station ;

W. T. Dyer.—12. Bog at the Giant's Ring (not Causeway), county Down; D. Orr.

*C. paradoxa* (Willd.)—7. Nearly extinct now at Ladiston, where it grows principally along the edges of ditches, on ground recently drained. With the tufted root of *C. paniculata*, this has fruit nearer in shape to that of *C. teretiuscula*, with which Dr. Hooker has, perhaps too hastily, combined it; D. M.

*C. paniculata* (Linn.) District 10. Near Clones, Fermanagh (Dr. Scott), Mackay Rar. The state with a narrow unbranched panicle is not rare, and grows intermixed with the typical plant.

*C. axillaris* (Good.) District 1. Salt marsh, near Kinsale! Isaac Carroll, 1866. This is the only locality in Ireland from which we have seen authentic specimens. *C. divulsa* has more than once been miscalled "*axillaris*."

*C. remota* (Linn.) District 3. Eastern slopes of Slieve Margy, Queen's Co., and near Newtownbarry, Carlow; R. Clayton Browne.

*C. rigida* (Good.) District 4. Top of Lugnaquilla, Wicklow; A. G. M.

*C. pallescens* (Lam.) District 2. Near St. Ann's, Blarney; R. Mills.—9. Near Drumod, Leitrim; W. T. Dyer.—15. Deer Park, Glenarm; R. Tate.

*C. limosa* (Linn.)—1. Base of Sugar-loaf Mountain, Glengarriff; Rev. T. Allin. District 2. Bluefort Bog, Newmarket; do.

*C. strigosa* (Huds.) District 12. Belvoir Park; Belfast Nat. Field Club Report, 1871.

*C. punctata* (Gaud.)—1. Plentiful in boggy or marshy meadows near Ardroom, at some little distance from the sea; A. G. M.

*C. distans* (Linn.) District 6. Great Aran Island; H. C. Hart.

*C. lævigata* (Sm.) District 3. Ryland's Wood, near Newtownbarry, Carlow; R. Clayton Browne.

*C. Pseudo-cyperus* (Linn.)—2. Dunsfort Bog, Middleton; Rev. T. Allin.—4. Marshes near Newcastle, Wicklow; A. G. M.

*C. filiformis* (Linn.) Pool near Glengarriff; Rev. T. Allin.

*C. hirta* (Linn.) District 3. Sandbrook near Ballon; R. Clayton Browne.

*C. vesicaria* (Linn.)—2. Rather rare; but occurs near Middleton and Buttevant; Rev. T. Allin.—9. Near Drumod, Leitrim; W. T. Dyer.—10. Common in Fermanagh (Dr. Scott) Mackay Rar.

*C. paludosa* (Good.) District 1. Caha river, Dunmanway, and District 2. Dunsfort Bog, Middleton; Rev. T. Allin. District 4. Marshes near the Murrough of Wicklow; A. G. M. District 7. Bog near Multyfarnham; A. G. M.

*C. riparia* (Curt.) District 7. Near Portumna; D. M. No. 5 to be added in the line of Districts.

*Phalaris arundinacea* (Linn.) District 3. Banks of the Barrow below Carlow; R. Clayton Browne. District 7. Parsonstown; M. Dowd.

*Phleum arenarium* (Linn.)—4. Sandhills at Arklow and north-

wards; A. G. M.—5. Gormanstown, Meath; A. G. M. District 6. Great Island of Aran; H. C. Hart.

*P. pratense* (Linn.) District 3. Browne's Hill, Carlow; R. Clayton Browne. District 7. Near Parsonstown; M. Dowd.

*Alopecurus pratensis* (Linn.) District 7. Parsonstown; M. Dowd. District 10. Enniskillen, Fermanagh; S. A. Stewart.

*A. geniculatus* (Linn.) District 3. In Carlow; R. Clayton Browne.

*Nardus stricta* (Linn.) District 3. On Mount Leinster; R. Clayton Browne. District 7. Near Parsonstown; M. Dowd. District 10. Sperrin Mountains, Tyrone; S. A. Stewart. Ascends to 3200 feet on Carn Tual; A. G. M.

*Milium effusum* (Linn.)—12. Dundonald Glen, and Stormont Glen, Down; S. A. Stewart.

*Calamagrostis Epigejos* (Roth). District 6. Between the road and the sea, near Killeany, Great Aran Island, in two places only; H. C. Hart, 1869.

*C. stricta* (Nutt.)—10. Scawdy Island, near Maghery, is in Tyrone, not Armagh; S. A. Stewart. Hence, Armagh must be erased from the list of counties.—12. Shores of Lough Beg, one mile south of Church Island; R. Tate.

*Agrostis canina* (Linn.)—1. Ascends to nearly the top of Carn Tual, say 3400 feet; A. G. M. *Agrostis vulgaris* to 3200 feet on same mountain.

*Holcus mollis* (Linn.) District 3. Browne's Hill, Carlow; R. Clayton Browne.

*Aira cespitosa* (Linn.)—1. A small form of this plant, which, except that the florets are not viviparous, Dr. Syme considers undistinguishable from the Scottish *A. alpina*, grows near the summit of Carn Tual; A. G. M.

*A. uliginosa* (Weihe). District 8. Found in July, 1869, growing plentifully on the swampy borders of Lough Creg-duff, near Roundstone; and afterwards traced by me in many localities through the district extending from Clifden to Kilkieran, Connemara; A. G. M.

*Trisetum flavescens* (Beauv.) District 7. Parsonstown; M. Dowd.—12. On a dry bank in the Bog Meadows, Belfast, and by the Laggan Canal near Moira, Antrim; S. A. Stewart.

*Avena pubescens* (Linn.) District 7. Parsonstown, not common M. Dowd.

*Melica uniflora* (Retz). District 7. Woods about Parsonstown; M. Dowd.

*Poa compressa* (Linn.) District 10. On the bank by roadside, half a mile from Portadown towards Lurgan! W. M'Millen. District 12. Roadside between Ballycastle and Ballintoy; D. M.

*Glyceria aquatica* (Sm.) District 3. In the Barrow below Carlow; R. Clayton Browne.

*Sclerochloa distans* (Bab.)—12. At Larne and at the upper end of Belfast Bay; S. A. Stewart.

*S. Borreri* (Bab.) The opinion expressed as to the possible parentage of this grass must be retracted, or, at least, qualified, since only *S. distans* and *S. maritima* grow along with it in the North Lots, Dublin.

†*S. procumbens* (Beau.) District 12. On Albert Quay, Belfast! in small quantity, and in one place only; S. A. Stewart. This grass has not lately been gathered near Dublin, and it is believed that *S. Borreri* was mistaken for it in the metropolitan district. *S. procumbens* seems very rare, and is open to some suspicion of having been introduced both at Cork and Belfast, which are the only two Irish localities.

*S. rigida* (Link.) District 3. Near Browne's Hill, Carlow; R. Clayton Browne. District 7. Walls and roadsides near Parsonstown; M. Dowd.—12. By the sea, two miles north of St. John's Point, Down; S. A. Stewart.

*S. loliacea* (Woods). District 6. In all three Isles of Aran; H. C. Hart.

*Catabrosa aquatica* (Presl.) District 3. In Carlow; R. Clayton Browne.

[*Cynosurus echinatus* (Linn.) Came up in a field at Sandbrook, Carlow, in 1868; R. Clayton Browne].

*Festuca uniglumis* (Sol.) District 4. Sandhills from Courtown to Arklow, and northwards to Rockfield, Wicklow; A. G. M.

*Festuca sciuroides* (Roth). District 7. Walls at Parsonstown, but rare; M. Dowd.

*F. Myurus* (Linn.) District 1. Walls at Dingle and Milltown, Kerry; A. G. M.—2. Common at Avoncore, and occurs in both East and West Cork; Rev. T. Allin. District 4. Springhill, Enniscorthy! J. Morrison. Walls at Arklow and Wicklow; A. G. M. District 6. Near Ballyvaughan, Clare; Rev. T. Allin. Probably not unfrequent in the middle and south of Ireland.

*F. arundinacea* (Schreb.) District 7. Banks of the Brosna and other places near Parsonstown; M. Dowd.

*Bromus erectus* (Huds.) District 3. Railway banks near Portarlinton, etc., towards Cork, extending probably to District 7; A. G. M. District 4. Banks on north side of Bray Head; A. G. M.

*Triticum pungens* (Pers.) Districts 4 and 5. Frequent on the Murrrough of Wicklow, and on banks and along ditches on the coast of probably all Ireland. A large form found on the shore near Rush has for many years been cultivated in the Botanic Gardens, Glasnevin, under the name of "T. Moorei."

†*Lolium temulentum* (Linn.) District 10. In Tyrone; Dr. Sigerson.

*Hordeum pratense* (Huds.) District 6. Meadows near Limerick; I. Carroll.

*Elquisetum hyemale* (Linn.) District 6. At Lough Atalia in the Great Island of Aran; H. C. Hart. District 10. Banks of the Colebrooke river, Fermanagh; T. O. Smith. District 11. Little Bins, Fanet; H. C. Hart. The plant of the Dundrum sandhills probably should be referred to "E. Moorei."

*E. Moorei* (Newman, 1853). Milde, the highest recent authority,



places this plant under *E. hyemale* as var. *Schleicheri* (Milde, 1858); but, as already observed in Seemann's "Journal of Botany," vol. vi., *E. Moorei* is the older name, and should be retained, in preference also to var. *paleaceum* Schleicher, adopted by Dr. Hooker in the "Student's Flora," but which has been rejected by Milde as ambiguous.—4. Sandhills north of Courtown, Wexford. Sandhills near Arklow, and thence northwards in many places along the coast extending to near Seapark House, three miles South of Wicklow.

*E. trachyodon* (A. Braun). *E. Mackaii* (Newman). District 2. Near St. Ann's, Blarney! (R. Mills); Rev. T. Allin, 1871. This will extend the range to South of Ireland.

*E. Wilsoni* (Newman). District 7. Canal near Mullingar; R. W. Rawson. District 8. Shores of Lough Bulard, near Roundstone; A. G. M. District 9? Shore of Lough Carra, Mayo; J. Ball. Probably this, rather than *E. trachyodon*.

*Polypodium Phegopteris* (Linn.) District 2. Rocks above Gurthaveha Lake, near Millstreet, with *Asplenium viride*; A. G. M.—8. Abundant in Glan, south of Maam Bay, Lough Corrib, Galway, and in the Coomb, south-west of Dromin Chapel, Mayo; G. H. Kinahan.—10. Deer Park, Brookboro'; Rev. S. A. Brenan.

*P. Dryopteris* (Linn.)—9. Near Lough Talt! on the Ox Mountains, Sligo; R. Warren.

*Lastrea Thelypteris* (Presl). District 4. Marshes in Glenree; Mackay, Cat. Ir.—5. At Lullybeg between Robertstown and Rathanagan, in Kildare; Mrs. Cooke Trench. Drumconrath, Meath; Rev. S. A. Brenan.—7. Rockingham, Roscommon; D. M.—10. Near Caledon, Armagh; E. Wallis.

*L. Oreopteris* (Presl). District 3. Abundant at foot of Mount Leinster, and on the banks of the Upper Barrow; R. Clayton Browne.

*Polystichum aculeatum* (Roth). District 3. At Browne's Hill and other places in Carlow, but rare; R. Clayton Browne.

*Cystopteris fragilis* (Bernh.)—2. Rocks above Gurthaveha Lake, near Millstreet; A. G. M. Dunmore East, Waterford; H. Fitzsimons. District 3. A single plant at Pollerton, near Carlow, R. Clayton Browne.—5. On the bridge at Monasterevan; Mrs. Cooke Trench.

*Asplenium lanceolatum* (Huds.)—1. On an old tower at Reencahirne and on Ballycarbery Castle, near Caherciveen; Rev. S. Madden.

*A. Adiantum-nigrum* (Linn.); var. *acutum* (Bory.)—1. By the River Shannon, near Corrig, Foynes! Miss C. G. O'Brien. District 8. Frequent in Connemara and south-west Mayo; G. H. Kinahan.

*A. viride* (Huds.)—2. Rocks above Gurthaveha Lake, near Millstreet; A. G. M.—8. Lissoughter, Glenlosh, and Bengower, Galway, and south-west of Dromin Chapel, Mayo; G. H. Kinahan.—11. In a gully on the north side of Slieve League! H. W. D. Dunlop.

*Adiantum Capillus-Veneris* (Linn.)—1. Sea-wall under Mount Trenchard, near Foynes; Rev. L. O'Brien.—8. Hill north-north-east of Sheffey, five miles from Killery Harbour; G. H. Kinahan. District 11. In one place on the cliffs of Slieve League (found by Rev. L. O'Brien); Rev. R. J. Gabbett.

*Hymenophyllum tunbrigense* (Sm.) District 10. In a glen between Aughnacloy and Augher, Tyrone; E. Waller. On the mountains near Florencecourt, with *H. Wilsoni*; Rev. S. A. Brenan.

*H. Wilsoni* (Hook.) District 3. On Mount Leinster; R. Clayton Browne.

*Ophioglossum vulgatum* (Linn.) District 11. Fanet and by Lough Swilly; H. C. Hart.

*Isoetes lacustris* (Linn.) District 2. In Gurthaveha Lake, near Millstreet; A. G. M.—4. A long slender form, some of whose fronds measured 26 inches, is in autumn washed ashore from deep water at Upper Lough Bray. Milde gives this Lake as a station for *I. echinospora*, which, however, I have not succeeded in finding there; A. G. M. In Lough Luggelaw; D. Orr.

*Lycopodium clavatum* (Linn.) District 3. On Mount Leinster; R. Clayton Browne.—10. On the mountains of Mourne; Harris's "Down," No. 19.

*L. Selago* (Linn.) District 3. Near Mount Leinster; R. Clayton Browne.

*L. selaginoides* (Linn.) District 3. Black Bog, near Carlow; R. Clayton Browne.

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LIST OF PAPERS RELATING TO THE FLORA OF IRELAND, PUBLISHED FROM 1865 TO 1872.

Andrews, W. On some Irish Saxifrages. Dublin Nat. Hist. Soc. Proceedings, vi., p. 84 (1871).

Allin, Rev. T. Irish Plants. Seemann's Journal of Botany, ix., p. 18 (1871).

— Plants of County Cork. Seemann's Journal of Botany, ix., pp. 111 and 173 (1871).

Barrington, R. M. On some plants recorded from Ireland. Trimen's Journal of Botany, i., p. 108 (1872).

Dowd, M. *Malva borealis*, near Dublin. Seemann's Journal of Botany, viii., p. 323 (1870).

Foot, F. J. *Hymenophyllum Wilsoni*, near Boyle, etc. Dublin Natural History Society Proceedings, v., p. 66 (1865-6).

Kinahan, G. H. On Ferns observed in West Connaught and South-west Mayo. Dublin Natural History Society Proceedings, vi., p. 67 (1871).

Moore, D., Ph. D. *Eriophorum alpinum*, and *Acorus Calamus*, found in Ireland. Dublin Natural History Society Proceedings, v., p. 112 (1866-7), and Seemann's Journal of Botany, v., p. 46 (1867).

— *Trifolium glomeratum* in Ireland. Seemann's Journal of Botany, viii., p. 192 (1870).

— On a form of *Salix Arbuscula* (afterwards corrected to *S. Grahami*, ix., p. 300), in Ireland. Seemann's Journal of Botany, viii., p. 209 (1870).

— Notes on some Irish Plants. Seemann's Journal of Botany, ix., p. 299 (1871).

- D. Moore and A. G. More. On the Climate, Flora, and Crops of Ireland. International Botanical Congress Report, 1866.
- More, A. G. *Trifolium subterraneum* in Ireland. Seemann's Journal of Botany, vi., p. 208 (1868).
- Note on *Equisetum Moorei*, etc. Seemann's Journal of Botany, vi., p. 253 (1868).
- *Hippophae rhamnoides* in Ireland. Seemann's Journal of Botany, vi., pp. 255 and 373 (1868).
- Discovery of *Scirpus parvulus* in Ireland. Seemann's Journal of Botany, vi., pp. 254 and 321 (1868).
- Discovery of *Aira uliginosa* at Roundstone. Seemann's Journal of Botany, vii., p. 265 (1869).
- On *Eriophorum alpinum* as a British Plant. British Association Report, 1871.
- Sigerson, G., M. D. Additions to the Flora of the tenth Botanical District, Ireland. Royal Irish Academy Proceedings, Sec. Ser., vol. ii., Science, p. 192 (1872).
- Smith, W. G. Discovery of *Cuscuta Trifolii* in Ireland. Dublin Natural History Society Proceedings, v., p. 198 (1868-9).
- Stewart, S. A. On some rare or overlooked plants in the neighbourhood of Belfast. Belfast Naturalist's Field Club Proceedings, (1865-6).
- A Run through Galway with a Vasculum. Belfast Nat. Field Club Proceedings (1867-8).
- A Visit to Dungiven and the Sperrin Mountains. Belfast Nat. Field Club Proceedings (1868-9).
- Tate, R. The Flora of Ireland, with special reference to Ulster. Belfast Nat. Field Club Proceedings (1866-7).
- Addenda to the "Cybele Hibernica." Seemann's Journal of Botany, viii., p. 81 (1870).
- Wright, Professor E. P. Notes on the Flora of the Islands of Arran. Dublin Natural History Society Proceedings, v., p. 96 (1866-7).

SUPPLEMENTARY LIST OF PAPERS, ETC., PUBLISHED PREVIOUS TO 1866.

- Andrews, W. Botanical Excursion in Clare and Kerry. Dublin Natural History Proceedings, reported in Annals of Natural History, vi., p. 382 (1841).
- Babington, Professor, C. C. On the recent additions to the Flora of Ireland. Annals of Natural History, vi., p. 328 (1841).
- Gage, Miss C. Plants of Rathlin Island. Botanical Society, Edin. Proceedings reported in Annals of Natural History, Sec. Ser., v., p. 145 (1850).
- Harris, Walter. The Ancient and Present state of the County of Down, 1744. Chap. xi. contains a catalogue of forty rare plants which was probably contributed by Isaac Butler.
- Harte, W. On the Occurrence and Geological Relations of certain

- Ferns in the County of Donegal. Dublin Natural History Society Proceedings, iv., p. 247 (1865).
- Harvey, Professor W. H. On a new British Saxifrage (*S. Andrewsii*). London Journal of Botany, vii., p. 571 (1848).
- Hincks, Rev. T. D. On Early Contributions to the Flora of Ireland. Annals of Natural History, vi., pp. 1 and 126 (1841).
- Lambert, A. B. Anecdotes of Patrick Browne. Linnæan Society Transactions, iv., p. 33 (1798).
- Moore, D. Botany of Parish of Templemore, in Ordnance Survey of the County of Londonderry, pp. 9-11; and pp. 6-8, plates 4, 5, of "Notices" (1837).
- Sampson, Rev. G. V. Memoir explanatory of the Chart and Survey of Londonderry. List of Plants, pp. 152-171 (1814).
- Sim, John. Remarks on the Flora of Ireland. *Phytologist*, 2nd Series, iii., p. 353 (1859). Cf. *Natural History Review*, vii., p. 434 (1860).
- Templeton, John. On a New Species of Rose (*R. Hibernica*, Smith, 1810). Royal Dublin Society Transactions, iii., p. 162, with plate (1802).
- Thompson, W. *Galium cruciatum*, an Irish plant. Annals of Natural History, ix., p. 519 (1842).
- Tighe, W. Statistical Observations relating to the County of Kilkenny (1802). List of Plants (including *Calamintha Acinos*), pp. 207 and 359.
- Plants of Coast of Wexford. Royal Dublin Society Transactions, vol., iii., p. 147 (1802).

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NOTE.—According to information lately received, it seems that *Plantago media* has some claims to be considered naturalized in the locality where Mr. Douglas observed it, and which he describes as not far from Malone's Gravel Pit, to the north of Straffan, where the plant formed quite a carpet, and the pink anthers were very conspicuous.







