

1913 Ingham Hepatics

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by William Ingham, B.A.

588.3

A Census Catalogue
OF
BRITISH HEPATICS,

WITH

*List of the Botanical Vice-Counties and their boundaries
and Lists of Sources of Records.*

Compiled for the MOSS EXCHANGE CLUB
of the British Isles by the Hon. Secretary,

Wm. Ingham, B.A.,

Assisted by D. A. JONES, F.L.S. (Wales), S. M. MACVICAR
(Scotland), Rev. C. H. WADDELL, M.A., B.D. (Ireland to 1905),
E. D. MARQUAND, A.L.S. (Channel Islands),

And many other Bryologists mentioned in the List of
Sources following.

Showing the comparative Rarity or Frequency of each Species
and Variety by means of a Census, indicating its distribution
through the 112 Watsonian Vice-County Divisions of Great
Britain, and R. Lloyd Praeger's 40 County Divisions of Ireland,
also the Channel Islands

2nd Edition.

Darwen :

W. H. WESTERN, PRINTER AND PUBLISHER.

MAY, 1913.

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PREFACE.

In October, 1905, the Census Catalogue of British Hepatics, compiled by S. M. Macvicar, and edited in York by W. Ingham, was published for the Moss Exchange Club. This was the first attempt made to show the distribution of British Hepatics according to the Watsonian vice-county divisions of Great Britain and Praeger's county divisions of Ireland. Scotland and Ireland were well represented in that Catalogue, but there were many gaps to be filled up in the distribution in England and Wales. The publication of the great work on the "Hepaticae of the British Isles" in 1902, by W. H. Pearson; of "A list with descriptive notes of all the species of Hepatics hitherto found in the British Isles," in the same year, by Canon Lett; and of a "Key to the Hepatics of the British Isles" in 1906, by S. M. Macvicar, did much to increase an interest in these plants. Almost every member of the Exchange Club has taken up the study of Hepatics.

The knowledge that S. M. Macvicar was preparing a work on British Hepatics gave a further impetus to the study, and in July, 1912, this important work was published as "The Student's Handbook of British Hepatics," by S. M. Macvicar, illustrated by H. G. Jameson.

Since 1905, the date of the 1st Edition of this Catalogue, much work has been done in the field by members of the Moss Exchange Club and others, and as they had the Census Catalogue of British Hepatics to show the weak places in the distribution, we are able in this 2nd edition to present the distribution in a much more complete form. That of the varieties and forms is of necessity much less complete than that of the species, as some of them had not been described before the publication of the handbook in 1912, so that there has not been time to work out their distribution.

S. M. Macvicar and W. Ingham have done much work in testing specimens from members of the Club and others, in order to make this Catalogue as accurate as possible.

The work done with a view to the publication of this 2nd Edition may be seen in the "Lists of Sources of Records" following.

In 1910 S. M. Macvicar published "The Distribution of Hepaticæ in Scotland," and thanks are due to him for a tabulated arrangement of the vice-county records of Scotland, and also a list of varieties and forms from the British Isles that had passed through his hands.

Mention should also be made of "The Hepatics of Sussex," by W. E. Nicholson, who has done so much in discovering new British species since 1905.

The system of classification adopted is that of the Handbook mentioned above, but the numbering of the species does not correspond with that in the Handbook, since eight new British species have come to light since its publication.

Records with an asterisk in the 1st Edition are omitted in the present edition, unless they have been confirmed since 1905; also records bracketed are to be regarded as doubtful.

The 1st Edition contained 249 species. This 2nd Edition contains 281, so that 32 new British species have been discovered since 1905, and of these eight have been determined since July, 1912.

The thanks of the Editor are due to all those willing helpers who have contributed to the production of this New Edition of the Census Catalogue of British Hepatics.

WM. INGHAM, B.A.,

Hon. Secretary of the British Moss Exchange Club.
York, May, 1913.

COUNTY and VICE-COUNTY DIVISIONS of the
BRITISH ISLES
(FOR BIOLOGICAL PURPOSES).

Hewett C. Watson's 112 Divisions of Great Britain (1852).

[See Introduction to "Topographical Botany," Edition II.
(Baker & Newbould), 1883.]

ENGLAND AND WALES.

C. CHANNEL ISLANDS.

I. Peninsula Province.

- 1 West Cornwall with Scilly.
- 2 East Cornwall.
- 3 South Devon.
- 4 North Devon.
- 5 South Somerset.
- 6 North Somerset.

II. Channel Province.

- 7 North Wilts.
- 8 South Wilts.
- 9 Dorset.
- 10 Isle of Wight.
- 11 South Hants.
- 12 North Hants.
- 13 West Sussex.
- 14 East Sussex.

III. Thames Province.

- 15 East Kent.
- 16 West Kent.
- 17 Surrey.
- 18 South Essex.
- 19 North Essex.
- 20 Herts.
- 21 Middlesex.
- 22 Berks.
- 23 Oxford.
- 24 Bucks.

IV. Ouse Province.

- 25 East Suffolk.
- 26 West Suffolk.
- 27 East Norfolk.
- 28 West Norfolk.
- 29 Cambridge.
- 30 Bedford.
- 31 Hunts.
- 32 Northampton.

V. Severn Province.

- 33 East Gloucester.
- 34 West Gloucester.
- 35 Monmouth.
- 36 Hereford.
- 37 Worcester.
- 38 Warwick.
- 39 Stafford.
- 40 Shropshire.

VI. South Wales Province.

- 41 Glamorgan.
- 42 Brecon.
- 43 Radnor.
- 44 Carmarthen.
- 45 Pembroke.
- 46 Cardigan.

VII. North Wales Province.

- 47 Montgomery.
- 48 Merioneth.
- 49 Carnarvon.
- 50 Denbigh.
- 51 Flint.
- 52 Anglesey.

VIII. Trent Province.

- 53 South Lincoln.
- 54 North Lincoln.
- 55 Leicester with Rutland.
- 56 Nottingham.
- 57 Derby.

IX. Mersey Province.

- 58 Cheshire.
- 59 South Lancashire.
- 60 West (*i.e.* Mid.) Lancashire.

X. Humber Province.

- 61 South-east York.
- 62 North-east York.
- 63 South-west York.
- 64 Mid.-west York.
- 65 North-west York.

XI. Tyne Province.

- 66 Durham.
- 67 Northumberland, South.
- 68 Cheviotland, or
Northumberland, North.

XII. Lakes Province.

- 69 Westmorland with
North Lancashire.
- 70 Cumberland.
- 71 Isle of Man.

SCOTLAND.**XIII. West Lowlands Province.**

- 72 Dumfries.
- 73 Kirkcudbright.
- 74 Wigtown.
- 75 Ayr.
- 76 Renfrew.
- 77 Lanark.

XIV. East Lowlands Province.

- 78 Peebles.
- 79 Selkirk.
- 80 Roxburgh.
- 81 Berwick.
- 82 Haddington.
- 83 Edinburgh.
- 84 Linlithgow.

XV. East Highlands Province.

- 85 Fife with Kinross.
- 86 Stirling.
- 87 West Perth with
Clackmannan.
- 88 Mid Perth.
- 89 East Perth.
- 90 Forfar.
- 91 Kincardine.
- 92 South Aberdeen.

- 93 North Aberdeen.

- 94 Banff.

- 95 Elgin or Moray.

- 96 Easternness (East Inverness with Nairn).

XVI. West Highlands Province.

- 97 Westernness
(West Inverness)

- 98 (Main) Argyll.

- 99 Dumbarton.

- 100 Clyde Isles.

- 101 Cantyre.

- 102 South Ebudes (Islay, &c.).

- 103 Mid Ebudes (Mull, &c.).

- 104 North Ebudes (Skye, &c.).

XVII. North Highlands Province.

- 105 West Ross.

- 106 East Ross.

- 107 East Sutherland.

- 108 West Sutherland.

- 109 Caithness.

XVIII. North Isles Province

- 110 Outer Hebrides.

- 111 Orkneys.

- 112 Shetlands.

R. Lloyd Praeger's 40 County Divisions of Ireland

(IRISH TOP. BOTANY, 1901.).

*(See "Journal of Botany" and "Irish Naturalist" of February, 1896, and Irish Topographical Botany," 1901.)***IRELAND.**

- | | | |
|-----------------------------|-----------------------|------------------|
| 1 South Kerry. | 14 Queen's County. | 27 West Mayo. |
| 2 North Kerry. | 15 South-east Galway. | 28 Sligo. |
| 3 West Cork. | 16 West Galway. | 29 Leitrim. |
| 4 Mid Cork. | 17 North-east Galway. | 30 Cavan. |
| 5 East Cork. | 18 King's County. | 31 Louth. |
| 6 Waterford. | 19 Kildare. | 32 Monaghan. |
| 7 South Tipperary. | 20 Wicklow. | 33 Fermanagh. |
| 8 Limerick. | 21 Dublin. | 34 East Donegal. |
| 9 Clare with Aran
Isles. | 22 Meath. | 35 West Donegal. |
| 10 North Tipperary. | 23 Westmeath. | 36 Tyrone. |
| 11 Kilkenny. | 24 Longford. | 37 Armagh. |
| 12 Wexford. | 25 Roscommon. | 38 Down. |
| 13 Carlow. | 26 East Mayo. | 39 Antrim. |
| | | 40 Derry. |

Particulars of Division of the Larger Counties.

The following are particulars of the lines of separation which are taken to divide the Larger Counties into two or more Vice-Counties. These particulars are, in the case of Great Britain, taken from the fourth volume, pp. 139-142, of the late Hewett C. Watson's "Cybele Britannica" (1859). In the case of Ireland, they are taken (1) partly from a paper by the late Charles C. Babington, M.A., F.R.S., read before the Dublin University Zoological and Botanical Association, in February, 1859, entitled "Hints towards a 'Cybele Hibernica'" (see Nat. Hist. Review, vi. part 2, Dublin, 1859), and (2) partly from a paper by R. Lloyd Praeger, B.A., B.E., M.R.I.A., entitled "On the Botanical Sub-division of Ireland," published simultaneously in the "Journal of Botany" (p. 57) and in the "Irish Naturalist" (p. 29) of February, 1896, and again in "Irish Topographical Botany," 1901.

ENGLAND AND WALES.

West Cornwall (1) is separated from *East Cornwall* (2) by a line traced along the high road from Truro, through St. Columb to the inland extremity of Padstow Creek, the salt water at the two ends of this line completing the division; *South Devon* (3) from *North Devon* (4) by a line following the water-shed that separates the streams flowing to the English Channel, from those flowing to the Bristol Channel; *South Somerset* (5) from *North Somerset* (6) by a line along the river Parret from Bridgwater to Ilchester, thence curving round to the northern extremity of Dorset; *North Wilts* (7) from *South Wilts* (8) by a line drawn along the Kennet and Avon Canal; *South Hants* (11) from *North Hants* (12) by a line traced along the high roads from Winchester, westward to Stockbridge, eastward to Petersfield, and continued thence to the borders of Wilts and Sussex; *West Sussex* (13) from *East Sussex* (14) by a line traced along the high road from Brighton to Cuckfield, thence by Crawley to the borders of Surrey; *East Kent* (15) from *West Kent* (16) by the river Medway and its tributaries, nearly up to Staplehurst, thence by the high road through Cranbrook to the border of Sussex near Hawkhurst; *South Essex* (18) from *North Essex* (19) by the high road from Walton and Epping to Chelmsford, thence by the Blackwater river to the coast; *East Suffolk* (25) from *West Suffolk* (26), and *East Norfolk* (27) from *West Norfolk* (28) by the meridian of 1deg. east longitude; *East Gloucester* (33) from *West Gloucester* (34) by the Thames and Severn Canal, and by the river Severn from the point of junction up to Tewkesbury; *South Lincoln* (53) from *North Lincoln* (54) by the Witham river from Boston to Lincoln, thence by the Foss Dyke to the Border of Nottingham; *South Lancashire* (59) from *West (i.e., Mid) Lancashire* (60) by the river Ribble; that more northerly (and detached) portion of the county situate to the north-west of Morecambe Bay, is taken with the Lakes Province and treated as a part of Westmorland.

The great county of York is first divided into the two sub-provinces of East and West Humber, by the rivers Humber, Ouse and Wiske. *South-East York* (61) is separated from *North-East York* (62) by the political line which divides the East Riding from the rest of the county; *South-West York* (63) is separated from *Mid-West York* (64) by the Leeds and Liverpool Canal, and by the river Aire below Leeds. *Mid-West York* (64) is separated from *North-West York* (65) by the political boundary between the North and West Ridings, that boundary being deflected westward so as to pass over Whernside to the south-eastern angle of Westmorland. *Cheviotland* (68) is cut off from the more southern part of Northumberland by the river Coquet, and a line continued to Carter Fell from the Linn Bridge.

Note.—The boundaries of the several counties are those employed previous to the readjustment completed in some in 1889.

SCOTLAND.

East Perth (89) is cut off from *Mid Perth* (88) by the rivers Garry and Tay. *Mid Perth* (88) is separated from *West Perth* (87) by a line traced over the high ground or water-shed so as to divide the tributaries of the Tay from those of the Forth; the little county of Clackmannan and a small detached portion of Stirling being taken as parts of West Perth; [When Perthshire or Stirlingshire material has been gathered in the Loch Lomond drainage area, it would be well to state this]. *South Aberdeen* (92) is separated from *North Aberdeen* (93) by lines traced along the water-sheds eastward and westward of Inverurie. Inverness is divided by the line of water-shed between the eastern and western sides of Scotland continued along Loch Ericht to the border of Perthshire. The easterly portion of the county, with the addition of Nairnshire, forms the large vice-county of *Easternness* (96). The remainder of Inverness, the waters of which drain to the western coast, along with the detached portion of Argyll situated to the north-west of Loch Linnhe, makes up the vice-county of *Westernness* (97); [In "Top. Bot." this definition of *Westernness* is adhered to in the text, but the map unfortunately includes in *Westernness* the portion of Argyll, south of Loch Linnhe, that lies between Loch Etive and Loch Leven, and has led to some erroneous records in past years]. (*Main*) *Argyll* (98) and *Cantyre* (101) are separated by the Crinan Canal. The *Clyde Isles* (100) include Bute, Arran, the Cumbraes and the islets Inchmarnock, Holy Isle, and Pladda; (Ailsa Craig goes with Ayrshire). *South Ebudes* (102) include Islay, Jura, and Colonsay with adjacent islets. *Mid Ebudes* (103) consist of Mull, Coll, and Tiree, with their adjacent islets. *North Ebudes* (104) include Skye, Rum, Eigg, and Canna, with their adjacent islets. *East Ross* (106) is separated from *West Ross* (105) by a line traced along the water-shed between the eastern and western coasts. The fragmentary county of Cromarty belongs to East Ross or West Ross according to the geographical position of its detached fragments. *East Sutherland* (107) is separated from *West Sutherland* (108) by the line of water-shed, this being so traced as to divide the south-eastern portion of the county from that draining to the west and north; [As "*West Sutherland*" includes two well-defined areas, one draining to the north, the other to the west, it should be indicated, in all new records, to which of these they refer]. The three groups of North Isles, viz., the *Outer Hebrides* (110), *Orkneys* (111), and *Shetlands* (112) are treated as counties and numbered accordingly.

Note.—The boundaries of the several counties are those employed previous to the readjustment completed in some in 1892.

IRELAND.

South Kerry (1) is separated from *North Kerry* (2) by a line following the southern and western boundaries of the baronies of Magunihy and Trughanacmy (R. Ll. Praeger); *West Cork* (3) from *Mid Cork* (4) by a line drawn from Millstreet through Macroom to Bandon, the boundary being completed by the Killarney Railway in the north, and the Bandon River in the south (Rev. Thos. Allin, 1883); *Mid Cork* (4) from *East Cork* (5) by the Great Southern and Western Railway from Charleville to Cork, thence by the western shore of Cork Harbour to the ocean (R. A. Phillips and R. Ll. Praeger); *South Tipperary* (7) from *North Tipperary* (10) by the Great Southern and Western Railway (C. C. Babington); *West Galway* (Connemara) (16) from *North-East Galway* (17) by Lough Corrib and the River Corrib (C. C. Babington); *South-East Galway* (15) from *North-East Galway* (17) by the Midland Great Western from Oranmore to Ballinasloe (R. Ll. Praeger); *East Mayo* (26) from *West Mayo* (27) by Lough Mask and the course of the River Ayle, thence to Castlebar by the Tuam road, and down the Clydagh River, Lough Conn, and the Moy River to the sea (C. C. Babington); *East Donegal* (34) from *West Donegal* (35) by a line dividing the baronies of Raphoe and Boyleagh from those of Inishowen and Kilmaecrennan (R. Ll. Praeger).

SOURCES OF RECORDS—GENERAL.

1. *Hepaticae of the British Isles*, with plates, 2 vols. (1902), by W. H. Pearson.
2. *A list with descriptive notes of all the Species of Hepatics hitherto found in the British Islands*, by H. W. Lett, M.A., M.R.I.A., pub. 1902.
3. *The Student's Handbook of British Hepatics*, by S. M. Macvicar, illustrated by Rev. H. G. Jameson, published July, 1912.
4. *Moss Exchange Club Ann. Reports*, 1896 to 1912.
5. *W. R. Sherrin*, 46 *add.* from v.c. 2, 3, 7, 10, 11, 17, 18, 21, 31, 45, 46, 47, 49, 69, 104, all *teste* W. Ingham.
6. *H. N. Dixon*, 20 *add.* from various English, Scotch, Welsh, and Irish vice-counties, *teste* W. Ingham, and a few by S. M. Macvicar.
7. *W. B. Waterfall*, 10 *add.* to v.c. 3, 48, 70, and C., *teste* W. Ingham.

SOURCES OF V.C. RECORDS ENGLAND.

v.c. I & 2, Cornwall. *Victoria County History—Transactions Penzance Nat. Hist. Soc.* 1881-2—Ll. J. Cocks—W. E. Nicholson—R. W. Smitham, v.c. 2.

v.c. 3 & 4, Devon. *Victoria County History*, by E. M. Holmes—Parfitt's *List of S. Devon Hep.*, supp. by Miss Larter—Ravenshaw's *Bot. of N. Devon*, by W. Mitten, 1877—*Devon Mosses and Hep.*, C. E. Larter to 28 July, 1908—*Some Crypt. of Bot. Dist. of Braunton and Sherwell*, by C. E. Larter to July, 1906—*Relation of Plants with their Environment*, from J. of Torquay Nat. Hist. Soc., 1910, C. E. Larter—*MS.* Miss Larter, Ll. J. Cocks, E. M. Holmes, H. Humphreys, W. Mitten—*Hep. coll.* H. N. Dixon, *ex.* W. Ingham.

v.c. 5 & 6, Somerset. *Bot. Rec. Club Rep.*, 1873-1879—*Bryophytes of Somerset*, by W. Watson and W. Ingham, J. of Bot., May, 1909—*Victoria County Hist.*—W. B. Waterfall—Dr. Parsons—Miss Larter—Miss A. Fry—Miss E. Armitage.

v.c. 7 & 8, Wiltshire. W. R. Sherrin—W. Watson.

v.c. 9, Dorsetshire. *Bot. Rec. Club Rep.* 1873-1879—E. M. Holmes—Miss G. Lister.

v.c. 10, Isle of Wight. *A Guide to Nat. Hist. of I. of Wight*, by F. Morey, 1909, *Hep.* by W. Ingham—*Coll.* Rev. H. M. Livens, *ex.* W. Ingham—*Add.* H. H. Knight, Nov., 1908.

v.c. 11 & 12, Hampshire. *Vict. Co. Hist.*, 1900, H. N. Dixon.

v.c. 13 & 14, Sussex. *The Hep. of Sussex*, by W. E. Nicholson, *Hast. & E. Sussex Nat.*, Vol. I., No. 6, 1911.

v.c. 15 & 16, Kent. *Vict. Co. Hist.*, 1907, E. M. Holmes—*MS.* Ll. J. Cocks.

v.c. 17, Surrey. *Phytologist*, Vol. 1, H. H. Holman and C. A. Johns—Dr. Parsons—Ll. J. Cocks, 34 *add.*—*add.* H. H. Knight.

v.c. 18 & 19, Essex. A. Brinkman, Oct., 1907.

v.c. 20, Herts. *A List of Herts. Hep.*, by A. E. Gibbs, F.L.S., *Trans. of Herts. Nat. Hist. Soc.*, Nov., 1893.

v.c. 21, Middlesex. *Bot. Rec. Club. Rep.*, 1873-1879—*Middlesex Flora*, 1869, Trimen & Dyer—*New Lond. Flora*, Dr. Eyre de Crespigny.

v.c. 22, Berks. *Vict. Co. Hist.*, 1906, Druce—*com.* by Rev. P. G. M. Rhodes from Boswell's *app. to Oxford Flora*, by Druce.

v.c. 23, Oxford. Druce's *Flo. Oxford*, 1886, *app. Mosses and Hep.*, by H. Boswell, January, 1886, *com.* by Rev. P. G. M. Rhodes—J. B. Duncan—H. H. Knight.

v.c. 24, Bucks. *Vict. Co. Hist.*, 1905, E. M. Holmes—*add.* H. H. Knight.

v.c. 25 & 26, Suffolk. *Hep. of Suffolk*, Rev. E. N. Bloomfield, *J. of Bot.*, Oct. 1895—*add.* by A. Mayfield, *test.* and *named* by W. Ingham—*Vict. Co. Hist.*, Rev. E. N. Bloomfield and W. E. Nicholson.

v.c. 27 & 28, Norfolk. *Supp. list of Norfolk Mosses, Hep.*, etc., by W. H. Burrell, F.L.S., *Trans. Norfolk and Norwich Nat. Soc.*, 1910—*MS.* W. H. Burrell, *Loph. Schultzii v. laxa*, W. H. Burrell, *J. of Bot.*, July, 1911.

v.c. 29, Cambridge. *Flora Cantabridgiensis*, 1829, Relhan—*MS.* Rev. P. G. M. Rhodes.—*Records in University Herb.* sent by Rev. P. G. M. Rhodes,

v.c. 30, Bedford. *Vict. Co. Hist.*, 1904—J. Saunders, Luton, September, 1906.

v.c. 31, Hunts. Dr. H. F. Parsons.

v.c. 32, Northampton. 19 *add.* by H. N. Dixon, *ex.* by W. Ingham.

v.c. 33 & 34, Gloucester. Many *add.* by H. H. Knight—*MS.* Rev. H. P. Reader, v.c. 34—G. Holmes, E. J. Elliott, *Sci. Goss.*, March, 1885.

v.c. 35, Monmouth. 20 *add.* by H. H. Knight and J. B. Duncan, Easter, 1911.

v.c. 36, Hereford. *Flora*, 1889, *add.* 1894—*Bot. Rec. Club. Rep.*, 1873-1879—*coll.* H. N. Dixon, *ex.* W. Ingham.

v.c. 37, Worcester. *Mosses and Hep.*, J. of Bot., February and March, 1896, J. E. Bagnall—*MS.* J. B. Duncan and H. H. Knight.

v.c. 38, Warwick. *Flora of Warwick*, 1891, J. E. Bagnall and *Midland Nat.*, 1892-3, J. E. Bagnall.

v.c. 39, Stafford. *Mosses and Hep.*, J. of Botany, February and March, 1896, J. E. Bagnall—*MS.* Rev. H. P. Reader.

v.c. 40, Shropshire. *MS.* of all Hep. known to have occurred, compiled from records by J. E. Bagnall, R. de G. Benson (dec.), J. B. Duncan, W. P. Hamilton (dec.), H. H. Knight, Rev. W. H. Painter (dec.), W. G. Travis, and others, including a few from Dillenius, etc., *com.* W. P. Hamilton, March, 1910.—*Add.* to 1913 J. B. Duncan.

v.c. 53 & 54, Lincoln. *Nat.*, 1896-1906, chiefly by J. Larder and Miss S. C. Stow.—J. J. Marshall, v.c. 54.

v.c. 55, Leicester and Rutland. *Cat. of Leicester Hep.*, *add* to 29th September, 1906, since pub. *Flora of Leicester*, 1885, by A. R. Horwood and Rev. H. P. Reader.

v.c. 56, Nottingham. No *add.*

v.c. 57, Derby. *Flo. Derby*, Rev. W. R. Linton—*MS.* Rev. W. R. Linton and Prof. Barker—J. C. Wilson, S. J. Owen, and D. A. Jones.

v.c. 58, Cheshire. D. A. Jones—W. Watson.

v.c. 59 & 60, Lancashire. *Flora West Lancs.*, 1907, by J. A. Wheldon and A. Wilson—*Hep. South Lancs.*, *Trans. Liverpool Bot. Soc.*, 1909, by J. A. Wheldon and W. G. Travis—*MS.* W. G. Travis, v.c. 59.

v.c. 61, 62, 63, 64, 65, Yorkshire. *Flora W. Yorks.*, 1888, F. A. Lees—*Flora N. Yorks*, 1906, 2nd ed., *Hep.* by M. B. Slater—*Supp. to 2nd Ed. Flora W. Yorks.*, *Hep.* by W. Ingham, 18 *add.*—*Moss and Hep. E. Yorks*, J. of Botany, April, 1908, W. Ingham—*add.* published in *Nat.* since 1905, date of 1st Ed., by W. Ingham—*MS.* W. Watson, for v.c. 63.

v.c. 66, Durham. *Vict. Co. Hist.*, 1906, *Mosses and Hep.* by W. Ingham—*add.* Rev. P. G. M. Rhodes.

v.c. 67 & 68, Northumberland. *Add.* by H. N. Dixon, *ex.* W. Ingham.

v.c. 70, Cumberland. *MS.* by J. C. Wilson, J. B. Duncan, and S. J. Owen, August, 1910, Borrowdale District.

v.c. 71, Isle of Man. *MS.* G. A. Holt, 1885, *com.* H. Beesley.

C. Channel Isles. *MS.*, E. D. Marquand to 6th Oct., 1906.

SOURCES OF RECORDS—WALES.

- Carrington & Pearson—*Brit. Hep. Exsic.*, v.c. 48, 49.
 Pearson's *Hep. of Brit. Isles*, 1902, v.c. 48, 49.
 Griffith's *Flora Carnarvon and Anglesey*, v.c. 49 and 52.
Moss Ex. Club Ann. Rep., 1896 to 1913.
Notes on the Flora of Flintshire, by A. A. Dallman, F.C.S., J. of Bot., July, 1908, v.c. 51.

SOURCES OF V.C. RECORDS—WALES.

- Prof. Barker—v.c. 48, 49, 50, *ex.* W. Ingham
 A. Brinkman—v.c. 45.
 H. H. Knight—v.c. 41, 42, 43, 44, 45, to September, 1911.
 S. J. Owen } E. Cleminshaw }
 J. C. Wilson } v.c. 52. J. B. Duncan } v.c. 48.
 D. A. Jones } W. G. Travis }
 D. A. Jones—v.c. 50, 51.
 J. C. Wilson } W. H. Pearson }
 Rev. P. G. M. Rhodes } v.c. 48, D. A. Jones } v.c. 49,
 S. J. Owen } 49 W. Ingham } July-
 D. A. Jones } J. C. Wilson } August,
 J. B. Duncan } 1912.
 Rev. W. H. Painter—v.c. 42, 46. D. A. Jones } v.c. 50,
 W. R. Sherrin } v.c. 46, *teste* J. B. Duncan } August,
 Rev. R. Jackett } W. Ingham. W. Watson } 1912.

SOURCES OF RECORDS—SCOTLAND.

1. *The Dist. of Hep. in Scotland*, by S. M. Macvicar, Trans. and Proc. Bot. Soc. of Edinburgh, vol. xxv., 1910.
2. *The Student's Handbook of British Hep.*, by S. M. Macvicar, July, 1912.
3. *Inverness Crypt.*, by A. Wilson, F.L.S., and J. A. Wheldon, F.L.S., J. of Botany, November, 1908. for v.c. 96.
4. P. Ewing, F.L.S., 10/4, -09, v.c. 101, *teste* S. M. Macvicar.
5. S. M. Macvicar, *List of Arran Hep.*, v.c. 100, February, 1910, Glasgow Nat.
6. *Inverness and Banff Crypt.*, by A. Wilson, F.L.S., and J. A. Wheldon, F.L.S., J. of Botany, 1910.
7. MS. v.c. 92 and 94, *add.* by W. E. Nicholson and H. H. Knight, July, 1912, and a few in v.c. 89 by W. E. Nicholson, July, 1912.
8. J. C. Wilson, J. B. Duncan, S. J. Owen, H. H. Knight, and D. A. Jones, F.L.S., for v.c. 88, 97.
9. MS. J. B. Duncan and H. H. Knight, January, 1909, v.c. 96, 98, etc.
10. W. R. Sherrin, v.c. 104, *teste* W. Ingham.
11. W. Ingham, for v.c. 88 and 97, the former with P. Ewing and W. Young, the latter with S. M. Macvicar, July-August, 1910.

SOURCES OF RECORDS—IRELAND.

1. *J. T. Mackay, L.L.D.*—Flo. Hibernica, Part II. by T. Taylor, M.D., 1830.
2. *B. Carrington, M.D.*—Gleanings among the Irish Crypt., Trans. Bot. Soc., Edinburgh, 1870.
3. *S. O. Lindberg*—Hepaticae in Hib., 1873.
4. *D. Moore*—Report on Irish Hep., Proc. Royal Irish Acad., 1876—List of Hep. in Dublin and Wicklow, Sci. Proc. Royal Dublin Society, 1876.
5. *W. H. Pearson*—Hep. of British Isles, with plates, 2 vols., 1902.
6. *D. McArdle*—Rare Irish Hep., Sci. Proc. Royal Dublin Society, 1881—Hep. Hill of Howth, Proc. Royal Irish Acad., 1863—Hep. King's and Queen's Co., Irish Nat., 1892—Hep. Leixlip, Co. Kildare, Irish Nat., 1893—Hep. Dundalk District, Irish Nat., 1894—Liverworts, Galway, Irish Nat., 1895—Hep. Roscommon, Irish Nat., 1896—Hep. Carlow, Irish Nat., 1896—Hep. Ross Is., Killarney, Irish Nat., 1900—Hep. Cavan, Proc. Royal Irish Acad., 1898—Hep. Torc, Killarney, Proc. Royal Irish Acad., 1899—Hep. Corcaguiny, Kerry, Proc. Royal Irish Acad., 1901—List of Irish Hepaticae, Proc. Royal Irish Acad.; 1904, p. 115.
7. *S. A. Stewart*—Hep. in Flo. N.E. Ireland, 1888—Supp. of Flora, Proc. Belfast Nat. Field Club, 1894-1895.
8. *Canon Lett*—Hep. Mourne Mts. Dist. Co. Down, Proc. Royal Irish Acad., 1890—List of all spec. found in Brit. Is., 1902, p. 199—A new Hep., J. of Bot., 1904—Notes on some Hep. of Ulster, Irish Nat., August, 1905—Clare Island Survey, Part 11-12, February, 1912.
9. *Rev. C. H. Waddell*—Some Hep. Co. Sligo, Irish Nat., 1892-1893.
10. *Moss Ex. Club's Reports*, 1896-1912.
11. *Miss P. M. C. French*—com. Rev. P. G. M. Rhodes, *add.* to I. 5, *teste* W. Ingham.
12. *W. N. Tetley*—I. 25, 26, 28, 29, 33, *teste* Canon Lett, Rev. C. H. Waddell, and D. A. Jones.
13. *J. B. Duncan*—*Add.* to I. 2, 23.
14. *J. B. Duncan, J. C. Wilson, S. J. Owen, and D. A. Jones*—*Add.* to I. 2, 3, 27.
15. *H. N. Dixon*—*Add.* to I. 35, *teste* W. Ingham.

British Hepatics.

Order I-Sphaerocarpaceae.

Family I.—SPHAEROCARPACEAE.

I. *Sphaerocarpus* Ludwig

- 1 *Michelii* Bellardi 3, 15, 18 or 19, 20, 25—28, 34, 36, 37, 55, 61. C.
- 2 *texanus* Aust. 17, 34, 37.

Order II-Marchantiales.

Family II.—RICCIACEAE.

II. *Riccia* L.

SUB-GEN. EURICCIA (*Lindb.*) Boulay

- 3 *ciliata* Hoffm. 1, 3.
- 4 *Crozalsii* Levier 48, 49.
- 5 *Michelii* Raddi (1, 2), 14.
- 6 *Lescuriana* Aust. 1, 38, 46, 48, 49, 59, 60, 64, 69, 73, 74, 76, 82—85, 90, 99. I. 35, 39.
- 7 *bifurca* Hoffm. 1, 14, 48, 52, 59, 69, 88.
var. *subinermis* Heeg 14.
- 8 *Warnstorffii* Limpl. in Warnst. 13, 14, 34, 37.
var. *subinermis* Warnst. 13.
- 9 *commutata* Jack 14, 16, 34, 37.
var. *acrotricha* Levier 14
- 10 *glauca* L. 1, 3, 4, 6, 10, 13—17, 19, 23, 25—27, 33, 34, 36—40, 42—45, 48, 49, 52, 54, 55, 57, 59—64, 69, 72, 73, 76, 78, 83—87, 97. I. 1, 20, 21, 34, 35, 38—40. C.
var. *major* Lindenb. 14.
var. *minor* Lindenb. 16, 59, 76, 83, 97. C.
var. *subinermis* (*Lindb.*) Warnst. 14.
- 11 *sorocarpa* Bisch. 1, 6, 10, 13, 14, 16, 17, 23, 27, 33, 34, 36, 37, 40, 44, 45, 48, 49, 52, 59—61, 69, 72, 73, 77, 78, 80, 82—85, 88—90, 96, 97, 99, 101, 103.
I. 1, 27, 40. C.

12 *nigrella* DC. 37, 48, 49.

SUB-GEN. RICCIELLA (*Braun*) *Boulay*

13 *crystallina* L. 4, (14), 16, 20, 26, 28, 32, 33, 36, 38, 39,
44, 48, 49, 52, 55, 59, 61, 83, 85. I. 39.

var. *angustior* Nees 44.

14 *pseudo-Frostii* Schiffn. 14, 17.

15 *fluitans* L. 3, 6, 12—14, 16, 20, 21, 25—29, 34, 37, 38,
40, 44, 52, 54, 55, 57—64, 83, 85, 87. I. 8,
21, 29, 32, 37, 38.

III. *Ricciocarpus* Corda

16 *natans* (L.) Corda 12, 13, 14, 19, 20, 26, 27—29, 36, 38,
40, 54, 55, 61—64. I. 8, 15, 19, 21, 22, 31.

Family III. MARCHANTIACEAE.

SUB-FAMILY TARGIONIOIDEAE.

IV. *Targionia* L.

17 *hypophylla* L. 3, 4, 26, 37, 39, 43, 44, 48, 49, 52, 57,
63—65, 83, 85—87, 98, 101, 104. I. 1, 2, 4, 39. C.

SUB-FAMILY MARCHANTIOIDEAE.

Marchantioideae-Operculatae.

V. *Reboulia* Raddi

18 *hemisphaerica* (L.) Raddi 1, 3, 4, 6, 8—11, 13, 14, 16, 17,
20, 27, 34, 36—44, 46—50, 52, 55, 57, 59—62,
64—67, 69, 73, 75, 80, 83, 85, 87, 88, 90, 97,
100, 103—105, 109. I. 1, 2, 4, 5, 9, 16, 17,
21, 27, 35, 38—40. C.

Marchantioideae-Compositae.

VI. *Conocephalum* Wigg.

19 *conicum* (L.) Dum. 1—6, 8—10, 13—18, 20, 23, 25—27, 29,
30, 33—42, 44—55, 57—65, 69, 71—91, 95—112.
I. 1—3, 6, 7, 12—16, 18—22, 25—31, 33—36,
38, 39. C.

VII. *Lunularia* Adans.

20 *cruciata* (L.), Dum. 1—6, 8, 10, 13—17, 19—21, 23,
25—28, 33—42, 44—46, 48—55, 57—64, 69,
71—91, 97—102, 109. I. 1, 2, 5, 6, 12, 18,
20—22, 30, 34, 38, 39. C.

VIII. *Dumortiera* Reinw. Bl. et Nees

21 *hirsuta* (Sw.) Reinw. Bl. et Nees 3, 4, 14. I. 1—4,
20.

IX. *Preissia* Corda

22 *quadrata* (Scop.) Nees 3, 6, 41, 42, 44, 46, 48, 49, 52, 57—60,
62—66, 69—76, 78, 79, 82—92, 96—105, 107,
109, 110, 112. I. 1, 2, 6, 8, 16, 19, 21, 26—
28, 34, 35, 38, 39.

X. *Marchantia* L.

- 23 *polymorpha* L. 1—6, 9, 13—18, 20, 22, 23, 25—28, 30, 32—34, 36—42, 44—50, 52, 55, 57—65, 69, 70, 72—75, 77—92, 97—101, 103, 106, 109, 110, 112. I. 1, 8, 9, 17, 18, 20, 21, 27, 31, 35, 37—39.

var. *aquatica* Nees 13, 14, 51, 59, 71.

var. *alpestris* Nees 88, 92.

Order III-Jungermanniales.

Family V. JUNGERMANNIACEAE ANACROGYNEAE.

SUB-FAMILY METZGERIOIDEAE.

XI. *Aneura* Dum.

- 24 *pinguis* (L.) Dum. 1—4, 6, 10, 13—15, 17, 20, 22, 23, 25, 27, 28, 30, 32—34, 37—42, 44—46, 48—52, 54, 55, 57—65, 69—112. I. 1, 2, 6—9, 13, 14, 18—21, 27, 35, 37—40. C.

var. *angustior* Hook. 2, 14, 15, 17, 48, 49, 59, 60, 66, 87, 88, 96—98, 100.

var. *denticulata* Nees 61, 88, 97—100, 105.

- 25 *incurvata* (Lindb.) Steph. 6, 14, 48, 49, 52, 81.

- 26 *multifida* (L.) Dum. 1, 3, 4, 6, 10, 13, 14, 17, 18, 20, 23, 25—27, 30, 33, 34, 37—41, 44—46, 48—52, 54, 55, 57—65, 69, 71—92, 95—112. I. 1, 2, 5, 27. C.

- 27 *sinuata* (Dicks.) Dum. 1, 3—6, 10, 14, 34—39, 44, 48, 49, 52, 57—60, 62—64, 69—71. I. 1, 2, 5, 7, 20, 27, 30, 38. C.

- 28 *major* (Lindb.) K. Müll. 13, 14, 25, 33, 34, 44, 48—50, 59, 60, 63, 97, 100. I. 27.

- 29 *latifrons* Lindb. 2—5, 10, 13, 14, 36, 46, 48, 49, 52, 58—64, 71—74, 77, 78, 80, 83—86, 88, 91—93, 95—98, 100, 101, 103—112. I. 1, 2, 3, 6, 14, 17, 18, 20, 21, 27, 30.

- 30 *palmata* (Hedw.) Dum. 48, 58, 59, 63, 69, 72, 73, 85—88, 91, 92, 95—98, 101, 105, 109—112. I. 1, 2, 3, 16, 18, 20, 27, 30.

XII. *Metzgeria* Raddi

- 31 *furcata* (L.) Dum. 1—11, 13—18, 20, 23—29, 33—50, 52—55, 57—66, 68—93, 96—105, 107—112. I. 1—3, 5—7, 9, 12—14, 17—23, 26—30, 33—35, 37—39. C.

var. *fruticulosa* (Dicks.) Lindb. 1, 13, 14, 23, 24, 28, 45, 46, 48, 62, 65, 73, 74, 78, 85, 86—88, 90, 107.

I. 1, 2, 13, 14, 18, 20, 21, 27, 29, 30, 34, 38.

var. *ulvula* Nees 97.

- 32 *conjugata* *Lindb.* 3, 4, 13, 14, 33—37, 40, 42, 44—46, 48, 49, 60, 62, 64, 65, 69—78, 81, 83, 85—92, 95—106, 108—111. I. 1—3, 6—9, 12, 17, 18, 20—22, 27, 30, 35, 38, 39.
- 33 *hamata* *Lindb.* 46, 48, 49, 69, 70, 73, 75, 76, 85, 88, 97—100, 102, 103, 105, 111. I. 1, 2, 16, 27, 35.
- 34 *pubescens* (*Schrank*) *Raddi* 3, 10, 34, 39, 48—50, 57, 60, 62, 64—66, 69, 70, 72, 83, 85, 86, 88—94, 96, 98, 106, 109. I. 39.

SUB-FAMILY DILAENOIDEAE.

XIII. *Pallavicinia* *S. F. Gray*

- 35 *Lyellii* (*Hook.*) *Gray* 3, 4, 11, 13, 14, 16, 48, 52, 62, 65, 69. I. 1, 2, 19, 20, 21.

XIV. *Moerckia* *Gottsche*

- 36 *hibernica* (*Hook.*) *Gottsche* 90, 112. I. 20.
- 37 *Flotowiana* (*Nees*) *Schiffn.* 1, 44, 48—50, 52, 57, 59, 62, 82, 85, 90. I. 21, 27, 35, 38, 39.
- 38 *Blyttii* (*Moerck*) *Brockm.* 88, 90, 92, 94, 96, 97, 106.

SUB-FAMILY CODONIOIDEAE.

XV. *Pellia* *Raddi*

- 39 *epiphylla* (*L.*) *Corda* 1—6, 8, 10, 13—18, 20—23, 25—27, 29, 30, 33, 34, 36—42, 44—55, 57—64, 69—93, 95—112. I. 1—3, 6—9, 12—15, 17—23, 26—30, 34, 38, 39. C.
- var. *undulata* *Nees* 62, 88.
- 40 *Neesiana* (*Gottsche*) *Limpr.* 1, 13, 14, 42, 57, 59, 60, 62, 76—79, 83, 85—90, 95—100, 102, 105—107, 109, 111, 112. I. 1, 3.
- var. *undulata* *Jack* 88, 97.
- 41 *Fabbroniana* *Raddi* (*J. calycina* *Tayl.*) 1—6, 8, 10, 13—16, 20, 23, 26, 27, 30, 32—42, 44—46, 48—52, 54, 55, 57—65, 69—92, 97—106, 109, 111. I. 1, 2, 9, 12, 14, 18—23, 27, 28, 35, 38, 39. C.
- var. *lorea* *Nees* 6, 14, 46, 48, 50, 62, 64, 73, 97, 98.

XVI. *Blasia* *L.*

- 42 *pusilla* *L.* 1, 3, 10, 13, 14, 16—18, 23, 30, 32—34, 37, 39, 40, 44—46, 48—50, 54, 55, 57—62, 64, 65, 69—79, 81, 83—85, 87—92, 95—101, 105—110, 112. I. 1, 2, 7, 12, 18—22, 27, 29—31, 35, 37—39.

XVII. *Petalophyllum* *Gottsche*

- 43 *Ralfsii* (*Wils.*) *Gottsche* 1, 4, 6, 44, 48, 49, 52, 59, 62. I. 1, 21, 27, 40.

XVIII. *Fossombronina Raddi*

- 44 *pusilla* (L.) Dum. 1, 3, 4—6, 8, 10, 11, 13, 14, 16—18, 21, 25, 27, 33, 34, 37—40, 42, 44, 45, 48—51, 55, 57—60, 62—64, 69, 71—75, 77, 81, 84, 90, 97, 99, 102, 109. I. 1, 2, 3, 35, 38, 39. C.
var. *decipiens* Corb. 13, 14, 59, 102, 103.
- 45 *Wondraczeki* (Corda) Dum. (*F. cristata* Lindb.) 1, 10, 11, 13, 14, 16, 17, 33, 34, 37, 39, 40, 42, 44, 48, 49, 61, 78, 83, 84, 88, 90, 97, 102, 103, 109. I. 38.
- 46 *caespitiformis* De Not. 1, 13, 14, 16, 34, 37, 40, 44, 48, 52, 54, 58—60, 69. I. 34.
- 47 *Mittenii* Tindall 4.
- 48 *Dumortieri* (Hüb. et Genth.) Lindb. 13, 14, 17, 49, 59, 61, 62, 70, 74, 88, 96, 97, 99. I. 2.
- 49 *angulosa* (Dicks.) Raddi 1, 49. I. 1, 2, 3, 27, 34. C.

SUB-FAMILY HAPLOMITRIOIDEAE.

XIX. *Haplomitrium Nees*

- 50 *Hookeri* (Sm.) Nees 1, 3, 11, 13, 61, 90, 97. I. 1, 21.

Family V. JUNGERMANNIACEAE ACROGYNAE.

SUB-FAMILY LOPHOZIOIDEAE.

XX. *Gymnomitrium Corda*

SUB-GEN. EUGYMNOMITRIUM K. Müll.

- 51 *concinatum* (Lightf.) Corda 48, 49, 64, 65, 69, 70, 72, 73, 87—92, 94, 96—100, 106, 108—110, 112.
var. *intermedium* Limpr. 88, 92, 96, 106, 112.
- 52 *obtusum* (Lindb.) Pears. 48, 49, 65, 69, 70, 73, 85—92, 94, 96—99, 104—106, 108—110. I. 27, 38.
- 53 *corallioides* Nees 49, 88, 89, 92, 97, 108, 109.
- 54 *crenulatum* Gottsche 3, 45, 46, 48, 49, 52, 69, 70, 73, 88, 90, 92, 97—100, 103—105, 109—111. I. 1, 2, 3, 7, 20, 21, 27, 31, 38—40.

SUB-GEN. HOMOCRASPIS (Lindb.) K. Müll.

- 55 *adustum* Nees 48, 49, 69, 70, 77, 88, 89, 92, 97—99.
- 56 *varians* (Lindb.) Schiffn. 88, 90, 92, 96, 97.
- 57 *crassifolium* Carr. 88, 92, 94, 96, 97.
- 58 *alpinum* (Gottsche) Schiffn. 48, 49, 69, 70, 73, 88, 89, 91, 92, 94, 96—98.
var. *heterophyllum* Bernet 97, 98.

XXI. *Marsupella Dum.*

- 59 *condensata* (Angstr.) Kaal. 88, 92, 97.
- 60 *apiculata* Schiffn. 92.
- 61 *nevicensis* (Carr.) Kaal. 97.
- 62 *Stableri* Spruce (*M. Boeckii* (Aust.) Lindb.) 48, 49, 69, 70, 92, 94, 97, 98.

- 63 *sparsifolia* (Lindb.) Dum. 92.
- 64 *Sprucei* (Limpr.) Bernet 48, 49, 88, 92, 97, 98.
- 65 *ustulata* Spruce 13, 48, 49, 62, 69, 88, 90, 92, 96—98, 101.
- 66 *Funckii* (Web. et Mohr) Dum. 2, 14, 37, 40, 46, 48, 49, 69, 70, 73, 79, 86, 88—92, 96—103, 105. I. 16, 27, 35, 37—39. C.
- 67 *emarginata* (Ehrh.) Dum. 1—4, 13, 14, 16, 34, 37, 40—42, 44—50, 52, 55, 57—66, 69—79, 81—92, 94—112. I. 1, 2, 6, 7, 9, 12—14, 16, 18, 20, 21, 27, 28, 30, 31, 34, 35, 37—39.
- 68 *Pearsoni* Schiffn. 3, 47—49, 65, 69, 88, 92, 96—99, 103, 112. I. 2, 27.
- 69 *aquatica* (Lindenb.) Schiffn. 3, 44, 45, 48, 49, 60, 62, 65, 69, 70, 73, 74, 76, 78, 83, 86—92, 94, 96—100, 102—104, 106, 108—112. I. 2, 20, 27, 38.
- 70 *sphacelata* (Gies.) Lindb. 92, 94.
- 71 *Sullivantii* (De Not.) Evans (*M. erythrorhiza* (Limpr.) Schiffn. 49, 88, 92, 96—98, 110, 112. I. 20.
- 72 *Jörgensenii* Schiffn. 73, 88, 96—98. I. 27.
- XXII. *Alicularia* Corda (*Nardia* S. F. Gray)
- 73 *compressa* (Hook.) Nees 3, 4, 42, 44, 46, 48, 49, 57—60, 62—64, 66, 69—71, 73, 88, 90, 92, 94, 96—100, 104, 105, 111, 112. I. 1, 2, 3, 16, 20, 21, 27, 35, 38, 39.
var. *rigida* Lindb. 73, 88, 98. I. 20, 27.
var. *gigantea* Macv. 69.
- 74 *scalaris* (Schrud.) Corda 1—6, 8, 10, 13, 14, 16—18, 20, 22—25, 27, 33, 34, 36—42, 44—46, 48—55, 57—65, 68—112. I. 1—3, 6—9, 12—14, 16—21, 26—30, 34, 37—39. C.
var. *procerior* Schiffn. 48, 57, 58, 75, 97, 98, 103.
var. *distans* Carr. 48, 49, 75, 88, 96, 98. I. 1.
var. *rivularis* Lindb. I. 20.
- 75 *Geoscyphus* De Not. (*Nardia minor* (Nees) Arnell) 3, 4, 13, 14, 34, 48, 59, 62—64, 77, 88—90, 92, 97, 104, 105, 109.
var. *suberecta* Lindb. 57—59, 62, 63, 77, 88, 89, 97, 105.
- 76 *Breidleri* Limpr. 88, 90, 92, 96, 97.
- XXIII. *Eucalyx* Breidl. (*Nardia* S. F. Gray)
- 77 *obovatus* (Nees) Breidl. (3), 45, 46, 48—50, 57, 59, 60, 62—66, 69—79, 83, 86—92, 94—110, 112. I. 1, 2, 6, 7, 9, 16, 20, 27, 30, 35, 38.
var. *rivularis* Schiffn. 48, 49, 88, 98. I. 27.
Forma *elongatus* Nees 97.
Forma *laxa* Schiffn. 49, 75.
- 78 *subellipticus* (Lindb.) Breidl. 88.

- 79 **parvicus** (*Schiffn.*) *Macv.* 42, 44, 48, 62, 65, 70, 73, 92, 97.
 * 80 **hyalinus** (*Lyell*) *Breidl.* 1, 3, 4, 10, 14, 20, 33, 34, 37, 39—42, 44—46, 48—50, 57, 59, 60, 62—66, 69—79, 82—92, 94—112. I. 1, 2, 13, 16, 20, 21, 27, 30, 31, 35, 37—39.

XXIV. **Haplozia** *K. Müll.* (*Aplozia* *Dum.*, 1874)

SUB-GEN. EUHAPLOZIA *Schiffn.*

Section *Typicae Schiffn.*

- 81 **crenulata** (*Sm.*) *Dum.* 1—5, 7, 10, 11, 13, 14, 16—18, 20, 22—28, 33, 34, 37, 39, 40, 42, 44—46, 48—50, 55, 57—64, 66, 69—73, 75, 77—86, 88—92, 95—98, 100, 102—107, 109, 110, 112. I. 1—3, 7, 9, 12, 14, 16, 20, 21, 27, 28, 30, 31, 35, 37—39. C.
 var. *gracillima* (*Sm.*) *Heeg* 2—5, 11, 13, 14, 16—18, 23, 25, 27, 33, 34, 36, 37, 39, 40—42, 44—46, 48—50, 58, 60, 62—64, 69, 71—80, 82—103, 105—112. I. 1, 2, 7, 12, 20, 21, 27, 28, 30, 31, 35, 38.
 Forma *tuberculata Schiffn.* 73, 97, 98.
 var. *cristulata* (*Dum.*) *Massal.* 83, 97.
 var. *inundata* (*Schiffn.*) *Macv.* 46, 62.
 82 **caespiticia** (*Lindenb.*) *Dum.* 10, 17.
 † 83 **sphaerocarpa** (*Hook.*) *Dum.* 2, 5, 11, 16, 22, 23, (37) (38—40) 46, 48—50, 55, 57—60, 62—65, 70—72, 75, 83, 86, 88—91, 96, 98, 107—109. I. 1, 2, 6, 20, 21, 27, 29, 31, 37—40.
 var. *nana* (*Nees*) *K. Müll.* (v. *lurida* *Pears.*) 3, 4, 14, 48, 49, 57, 58, 62, 64, 88, 89. I. 1, 3, 20, 21.

Section *Luridae Spruce*

- 84 **cordifolia** (*Hook.*) *Dum.* 42, 44, 48—50, 57, 59, 60, 62, 64—66, 69, 70, 72, 73, 77, 78, 83, 85—92, 94, 96—99, 102, 105. I. 1, 2, 38—40.
 85 **riparia** (*Tayl.*) *Dum.* 1, 3, 4, 6, 13, 14, 33, 34—37, 39—42, 44—51, 57—66, 69—92, 94—109, 111, 112. I. 1, 2, 4, 5, 16, 20, 27, 28, 30, 35, 38—40.
 var. *rivularis* *Bern.* 33, 37, 50, 57, 59, 63, 70, 74, 78, 88, 90.
 Forma *potamophila* *Bern.* 51, 59, 71, 79, 82, 83, 88, 97—99.
 86 **atrovirens** (*Schleich.*) *Dum.*
 var. *sphaerocarpoidea* (*De Not.*) *Massal.* 36, 76, 88, 90, 92, 100, 101, 107, 112.
 87 **pumila** (*With.*) *Dum.* 1, 3, 4, 14, 16, 23, 34, 37, 39—42, 44—46, 48, 49, 52, 57, 59, 62—65, 69—81, 83—92, 94, 95—100, 102—106, 108—111. I. 1, 2, 3, 20, 21, 27, 29, 30, 37—40.
 var. *rivularis* *Schiffn.* 39, 57, 74, 92.

* 80 Some of these may be 79 above.

† 83 Records from the Southern counties may be 85 below.

88 *Schiffneri* *Loitlesb.* 89.

SUB-GEN. LIOCHLAENA (*Nees*) *Schiffn.*

89 *lanceolata* (*Schrad.*) *Dum.* 3, 14, 36, 62, 64, 69.

XXV. *Jamesoniella* (*Spruce*) *Schiffn.*

90 *subapicalis* (*Nees*) *Schiffn.* 14, 37, 40, 48, 50, 64, 69, 70, 73, 86—88, 90, 91, 97—99.

91 *Schraderi* (*Nees*) *Schiffn.* 69, 98.

92 *Carringtoni* (*Balf.*) *Schiffn.* 88, 92, 94, 97—99, 102, 105, 108, 111.

XXVI. *Anastrophyllum* (*Spruce*) *Steph.*

93 *Donianum* (*Hook.*) *Steph.* 88, 90, 92, 94, 97, 98, 106.

XXVII. *Gymnocolea* *Dum.* (*Lophozia* *Dum.* 1835)

94 *inflata* (*Huds.*) *Dum.* 1—4, 9, 10, 11, 13, 14, 16—18, 26—28, 33, 34, 37—42, 44, 45, 48—52, 54, 55, 57—66, 69—78, 81—101, 103—112. I. 1, 3, 7, 16, 18, 20, 21, 27, 30, 35, 37—39.

var. *heterostipa* (*Carr. et Spruce*) *K. Müll.* 35, 49, 57, 60, 73, 88, 92, 97—99. I. 35.

Forma *nigricans* *Nees* 88.

Forma *laxa* *Nees* 18, 44, 45, 48, 59—64, 69, 71, 97, 98. I. 2, 35, 38.

Forma *compacta* *Nees* 59, 63, 73. I. 21.

95 *acutiloba* (*Kaal.*) *K. Müll.* 48.

XXVIII. *Lophozia* *Dum.*

SUB-GEN. LEIOCOLEA *K. Müll.*

96 *turbinata* (*Raddi*) *Steph.* 1, 3—6, 9, 10, 13—17, 20, 22, 33—35, 37—42, 44, 48—50, 52, 57, 58, 60—65, 69, 71, (72), 73, (75—78), 81—85, 87, 89, (90), 98 (106), 107—109, 111. I. 1, 2, 6, 13, 14, 17—21, 34, 35, 38, 39.

97 *badensis* (*Gottsche*) *Schiffn.* 13, 14, 17, 25, 33—36, 41, 44, 48, 50, 52, 59, 62, 63, 65, 72, 75, 78, 82—85, 88—90, 106, 109, 110. I. 27.

var. *obtusiloba* (*Bern.*) *Schiffn.* 32, 59, 83, 110.

98 *Muelleri* (*Nees*) *Dum.* 34, 39, 44, 48, 49, 57, 60, 63—65, 69—73, 75, 76, 78—80, 82, 83, 85—90, 92, 95—97, 99, 100, 102—109, 111, 112. I. 27, 29.

var. *Libertae* (*Hüben.*) *Schiffn.* 88, 111.

99 *bantriensis* (*Hook.*) *Steph.* 4, 27, 40, 42, 44, 48, 49, 57, 59, 60, 62, 64—66, 69, 73, 75, (77), 78, (81), (82), 83, (84), 85, 88—90, 97—99, 107, 109. I. 1, 2, 3, 14, 20, 27, 28, 38, 39.

var. *sub-compressa* (*Limpr.*) *Schiffn.* 88.

100 *heterocolpa* (*Theod.*) *Howe* 88, 92.

101 *Kaurini* (*Limpr.*) *Steph.* 109.

102 *Schultzii* (*Nees*) *Schiffn.*

var. *laxa* *Schiffn.* 27.

SUB-GEN. DILOPHOZIA K. Müll.

- 103 **longidens** (Lindb.) Macoun 88, 92, 96—98.
- 104 **ventricosa** (Dicks.) Dum. 1—5, 10, 11, 13, 14, 16—18, 20, 22, 23, 25—27, 34, 35, 37—42, 44—52, 54, 55, 57—66, 69—112. I. 1—3, 6, 7, 16, 17, 20, 21, 27, 28, 30, 31, 35, 37—39. C.
- 105 **porphyroleuca** (Nees) Schiffn. 27, 38, 39, 48, 57, 60—62, 64, 66, 69, 72—78, 85—92, 96—98, 100—102, 105, 107—109, 111, 112. I. 20, 27, 31, 35, 37—39.
- 106 **guttulata** (Lindb. et Arn.) Evans 92.
- 107 **longiflora** (Nees) Schiffn. 88.
- 108 **alpestris** (Schleich.) Evans 46, 48, 49, 57, 69, 70, 72, 73, 87—90, 92, 94, 96—98, 105—109, 112. I. 1, 2, 9, 13, 20, 21, 27, 28, 30, 38, 39.
var. *gelida* (Tayl.) Macv. 49, 88—90, 92, 96—98, 109, 110.
var. *litoralis* (Arnell) Schiffn. 48.
- 109 **confertifolia** Schiffn. 14. I. 35.
- 110 **Wenzelii** (Nees) Steph. 88, 89, 92, 97.
- 111 **bicrenata** (Schmid.) Dum. 13, 14, 16, 17, 20, 27, 30, 33, 34, 37—40, 44, 48—50, 55, 57—63, 70, 73, 74, 78, 80—85, 88—92, 96—99, 101, 105, 106, 109, 112. I. 1, 4, 7, 16, 20, 21, 38, 39.
- 112 **excisa** (Dicks.) Dum. 2—4, 10, 11, 13, 14, 16, 17, 20, 27, 33, 34, 37, 38—42, 44—46, 48—50, 52, 57, 59—64, 69, 73, 76—85, 91, 96, 97, 100, 103, 106, 109. I. 1, 3, 7, 16, 27, 28, 35, 37, 38.
Forma *cylindracea* (Dum.) K. Müll. (*L. cylindracea* Dum.) 48, 89, 92, 96, 108.
Forma *Limprichtii* (Lindb.) Massal. 3, 14, 77, 78.
Forma *arenaria* (Nees) Schiffn. 48, 49.
- 113 **incisa** (Schrad.) Dum. 3, 13, 14, 16, 17, 20, 25, 27, 37, 39, 41—44, 48—50, 52, 55, 57—65, 69, 70, 72—80, 82, 83, 85—92, 94—101, 103—106, 108—112. I. 1—3, 14, 16—18, 20, 21, 27, 28, 35, 37—40.

SUB-GEN. BARBILOPHOZIA (Loeske) K. Müll.

- 114 **quinquedentata** (Huds.) Cogn. 1, 3, 4, 37, 39, 40, 42, 44, 46, 48—51, 57, 60, 62—65, 69, 70, 72—92, 94, 96—101, 103—112. I. 1, 6, 20, 27, 31, 33, 38, 39.
- 115 **lycopodioides** (Wallr.) Cogn. 88, (89), 90, (96), 97, 106, 107, (108).
- 116 **Hatcheri** (Evans) Steph. (*L. Floerkii* var. *Baueriana* Schiffn.) 49, 59, 60, 71, 81, 83—86, 88—93, 95—97, 107—109.

- 117 *Floerkii* (*Web. et Mohr*) *Schiffn.* 4, 39, 40, 42, 44—46, 48—51, 55, 57—60, 62—67, 69—102, 105—112. I. 27, 35.
 var. *Naumanniana* *Nees* 50, 60, 63, 69, 72, 98, 99, 109.
- 118 *atlantica* (*Kaal.*) *Schiffn.* 59, 60, 63, 70, 100, 108, 109.
- 119 *attenuata* (*Mart.*) *Dum.* (*Lophozia gracilis* *Steph.*) 1, 2, 4, 14, 16, 24, 27, 34, 35, 37, 39, 40, 44—46, 48—51, 55, 57—65, 69—76, 81—92, 95—98, 100, 101, 106, (107), 108, 109. I. 1, 7, 21, 27, 35, 37, 38. C.
- 120 *barbata* (*Schmid.*) *Dum.* 1, (3), 4, 13, 14, 37, 39, 40, 44, 48, 50, 52, 54, 55, 60, 62—66, 69, 70, 72—74, 77—79, 82—92, 95—99, 104—107, 109, 112. I. 1, 6, 20, 21, 27, 30, 35, 37, 40.
- 121 *quadriloba* (*Lindb.*) *Evans* 88.
- 122 *Kunzeana* (*Hüb.*) *Evans* 88, 92, (96), 97.
- 123 *obtusa* (*Lindb.*) *Evans* 49, 71, 88, 97, 99.

XXIX. *Sphenolobus* (*Lindb.*) *Steph.*SUB-GEN. EUSPHENOLOBUS *K. Müll.*

- 124 *saxicolus* (*Schrad.*) *Steph.* 92, 96.
- 125 *minutus* (*Crantz*) *Steph.* 14, 44, 48, 49, 51, 57, 60, 62—64, 69, 70, 73, 78, 83, 85—92, 96—102, 105—109, 111, 112. I. 1—3, 6, 7, 20, 21, 27, 38.
 var. *cuspidatus* *Kaal.* 87, 98.
- 126 *ovatus* (*Dicks.*) *Schiffn.* (*J. Dicksoni* *Hook.*) 3, 4, 44, 48, 49, 57, 65, 69—71, 73, 86—92, 96—99, 104—106, 108, 109. I. 1, 20, 21, 27, 29, 31, 35, 38.
- 127 *Hellerianus* (*Nees*) *Steph.* 69, 88, 92.

SUB-GEN. CEPHALOZIOPSIS (*Spruce*) *Macv.*

- 128 *Pearsoni* (*Spruce*) *Steph.* 48, 49, 73, 97, 98, 103. I. 27.

SUB-GEN. TRITOMARIA (*Schiffn.*) *K. Müll.*

- 129 *politus* (*Nees*) *Steph.* 88, 92, 98, 99.
 var. *medelpadicus* *Arnell* 88.
- 130 *exsectus* (*Breidl.*) *Steph.* 48, 49, 86, 97—99. I. 27.
- 131 *exsectiformis* (*Breidl.*) *Steph.* 3, 10, 13, 14, 16, 17, 25—27, 37, 48, 50, 51, 57—59, 61, 62, 64, 69, 73, 74, 78, 80, 81, 85—93, 96—98, 100, 104, 105, 107—109, 112. I. 1—4, 6, 17, 20, 27, 29, 35, 38, 39.

XXX. *Acrobolbus* *Nees*

- 132 *Wilsoni* (*Tayl.*) *Nees* 97. I. 1—3, 27.

XXXI. *Anastrepta* (*Lindb.*) *Schiffn.*

- 133 *orcadensis* (*Hook.*) *Schiffn.* 48, 49, 69, 70, 75, 78, 85, 87, 88, 90, 92, 94, 96—99, 101, 103—109, 111. I. 1, 6, 27.

XXXII. *Plagiochila Dum.*

- 134 *asplenioides* (L.) Dum. 1—6, 8, 10, 13—18, 20, 23, 25—42, 44—55, 57—66, 69—112. I. 1—3, 6—9, 13—15, 18—22, 26—31, 33—35, 37—40. C.
 var. *minor* Lindenb. (*P. Dillenii* Tayl.) 1, 4, 10, 13, 14, 34, 36, 37, 39, 40, 45, 46, 48—51, 59, 60, 62—66, 69—75, 78, 82—84, 86—88, 90, 95—99, 103, 105. I. 1, 2, 13, 27, 38.
 Forma *laxa* Matouschek 50.
 var. *devexa* Carr. I. 1.
 var. *humilis* Lindenb. 3, 13, 14, 38, 39, 44, 45, 48—50, 57, 60, 64, 66, 69, 73, 76, 82—85, 90, 97, 112. I. 2, 27, 37.
 Forma *laxa* Schiffn. 14, 50, 66.
 var. *major* Nees 5, 6, 10, 13, 14, 16, 32—35, 37, 40, 42, 44—50, 57, 58, 60, 62, 64, 66, 70, 72, 73—75, 77, 79, 80, 82—91, 95—106, 109, 110. I. 28, 33, 38.
- 135 *spinulosa* (Dicks.) Dum. 1—4, 6, 11, 14, 37, 40, 42, 44—46, 48, 49, 52, 57, 59, 60, 63—65, 69—76, 78, 83, 85—91, 96—105, 109—112. I. 1—3, 6—9, 12—14, 16, 18, 20—22, 26—30, 33—35, 37—39. C.
 var. *killarniensis* (Pears.) Macv. I. 1.
 var. *inermis* Carr. 48, 60, 69, 86, 99, 101, 103, 110, 111. I. 1, 2, 27.
- 136 *ambagiosa* Mitt. I. 3.
- 137 *punctata* Tayl. 1, 3, 4, 44—46, 48, 49, 65, 70, 71, 73, 75, 86—88, 97—105, 110. I. 1—3, 6, 13, 20, 27, 29, 35, 39.
 var. *Owenii* (Steph.) Macv. I. 1.
 var. *minuta* Bréb. 70, 97.
- 138 *tridenticulata* Tayl. 48, 49, 69, 70, 75, 97—99, 103, 105. I. 1—3, 27, 28, 35, 39.
- 139 *Stableri* Pears. 69.

XXXIII. *Pedinophyllum Lindb.*

- 140 *interruptum* (Nees) Pears. (3), 57, 62, 64, 69, 98. I. 1, 9, 27—29, 38.
 var. *pyrenaicum* (Spruce) Kaal. 64, 65.

XXXIV. *Leptoscyphus* Mitt. (*Myliia* S. F. Gray)

- 141 *Taylori* (Hook.) Mitt. (*Myliia Taylori* Gray) 7, 27, 28, 39, 40, 44, 46, 48, 49, 53, 57, 59—66, 69—71, 73, 74, 76—78, 82—92, 94, 96—112. I. 1—3, 6, 16, 20, 21, 27, 31, 33, 35, 37—40.
- 142 *anomalus* (Hook.) Mitt. (*Myliia anomala* Gray) 3, 4, 11, 13, 14, 16, 17, 25—28, 39, 46, 48, 55, 57—64, 69, 70, 72—79, 81—93, 95—101, 103—109, 111, 112. I. 1—3, 20, 27, 37—39.

- 143 *cuneifolius* (Hook.) Mitt. (*Clasmatocolea cuneifolia* Spruce)
88, 97—99. I. 1—3, 16, 27.

XXXV. *Lophocolea* Dum.

- 144 *bidentata* (L.) Dum. 1—8, 10, 13—18, 20—30, 32—
34, 36—40, 42—55, 57—103, 105—112.
I. 1—3, 5—9, 12—16, 20—23, 26—30, 33—
35. C.
- 145 *cuspidata* Limpr. 1—7, 9, 10, 13—15, 17, 21, 23, 27, 28,
33—35, 37—42, 44—46, 48—51, 55, 57—64,
70—92, 94—103, 105—107, 109—112. I. 1,
2, 7, 27, 35.
- 146 *alata* Mitt. ex Larter 1, 4, 6, 10, 13, 14, 17, 33, 34, (40), 41,
45, 48, 59, 60.
- 147 *heterophylla* (Schrad.) Dum. 1, 3—6, 8, 10, 11, 13—21,
23—30, 33—41, 44—46, 48—51, 53—55, 57—
65, 69—73, 76, 77, 79—91, 96—98, 100, 101,
105. I. 2, 5, 7, 16, 20, 21, 27, 30, 34, 35, 38.
C.
- 148 *fragrans* Moris et de Not. (*L. spicata* Tayl.) 1, 4, 40,
44, 45, 48, 49, 57, 74, 81, 97, 100, 103. I. 1—
3, 5, 6, 13, 20, 27. C.

XXXVI. *Chiloscyphus* Corda

- 149 *polyanthus* (L.) Corda 1—6, 8, 13, 14, 16—18, 20, 27, 29,
32, 34, 35, 37—40, 42, 44—51, 54, 55, 57—66,
69—92, 95—105, 107—112. I. 1—3, 6,
14, 20, 21, 27, 31, 35, 38—40. C.
- var. *rivularis* (Schrad.) Nees 3, 5, 14, 37—40, 48, 57,
60, 62, 69, 70, 73, 75, 76, 78, 82, 83, 87, 88, 97,
99, 102. I. 1—3, 9, 27, 39.
- var. *fragilis* (Roth.) K. Müll. 5, 14, 40, 49, 62, 63, 88—
96.
- * 150 *pallescens* (Ehrh.) Dum. 3—6, 10, 14, 33, 34, 37, 40—42,
44, 45, 48, 50, 51, 56, 58—60, 62, 63, 65, 82—
90, 96—100, 102, 103, 105, 111, 112. I. 1, 2, 5.

XXXVII. *Harpanthus* Nees

- 151 *Flotowianus* Nees (62), 73, 88—90, 92, 97, 98, 106, 109,
112.
- 152 *scutatus* (Web. et Mohr) Spruce 14, 16, 46, 48, 49, 62, 64,
72, 97, 98, 100, 105. I. 1—3, 20, 27, 35.

XXXVIII. *Geocalyx* Nees

- 153 *graveolens* (Schrad.) Nees 105.

XXXIX. *Saccogyna* Dum.

- 154 *viticulosa* (Sm.) Dum. 1—4, 6, 34, 37, 39—46, 48, 49, 52,
59, 60, 63—65, 69—74, 76, 85—91, 97—106,
108, 110—112. I. 1—3, 6, 7, 9, 12—14, 16,
18, 20, 21, 27, 28, 30, 31, 38, 39. C.

* Some of these records may be var. *fragilis* above. Further examination is necessary.

SUB-FAMILY CEPHALOZIOIDEAE.

XL. *Cephalozia* Dum.

SUB-GEN. EUCEPHALOZIA Spruce

- 155 **bicuspidata** (L.) Dum. 1—6, 8, 10, 11, 13—18, 21—28, 33—46, 48—55, 57—66, 69—112. I. 1—3, 5—9, 12—16, 18—23, 26—31, 34, 35, 37—39. C.
var. *grandiflora* Spruce 62.
var. *setulosa* Spruce 14, 62, 69. I. 3, 17, 18, 30.
var. *conferta* Hüben. 61, 62, 65, 78, 88, 96—98.
- 156 **Lammersiana** (Hüb.) Spruce 13, 14, 16, 17, 27, 38, 39, 44—46, 48, 53, 54, 57—65, 69, 70, 72—78, 81, 83—86, 88, 91, 92, 95—99, 101, 103—105, 109—112. I. 1—3, 6, 7, 9, 12, 14, 16—18, 20, 21, 27, 30, 35, 37, 38.
var. *serratiflora* Schiffn. (var. *grandifolia* Spruce MS.) 59, 62.
- 157 **ambigua** Massal. 88, 89, (92).
- 158 **pleniceps** (Aust.) Lindb. 88—90, 92, 94, 108.
- 159 **macrantha** Kaal. et Nichols. 14, 88, 92.
- 160 **connivens** (Dicks.) Lindb. 1, 3, 10, 11, 13, 14, 16, 17, 24—28, 37—40, 43, 46, 48, 49, 57—65, 68—70, 72—79, 81, 83—86, 88—93, 96—112. I. 1—3, 7, 8, 16—18, 20, 21, 27, 28, 35, 37—40. C.
- 161 **hibernica** Spruce MS. Pears. I. 1, 2, 40.
- 162 **Loitlesbergeri** Schiffn. 60, 92.
- 163 **media** Lindb. (*C. lunulaefolia* Dum.) 3, 9, 13, 14, 16, 17, 34, 36—40, 44, 46, 48—51, 57—62, 64, 65, 69—75, 77—103, 105, 106, 109—111. I. 1, 2, 6, 7, 16, 18, 21, 27, 35, 37, 38.
var. *pallida* (Spruce) Massal. (*C. pallida* Spruce) 48, 58, 61, 62, 72, 73, 83. I. 1, 2, 20, 21, 27, 35.
var. *laxa* Schiffn. 97.
- 164 **macrostachya** Kaal. 9, 13, 14, 24, 48, 69, 89, 90.
- 165 **serriflora** Lindb. (*C. reclusa* Dum. p.p., *C. catenulata* Spr. p.p.) 13, 14, 28, 42, 48, 58, 59, 62—64, 69, 70, (73), 84, 90, 92, 97, 98 (109). I. 1—3, 7, 9, 13, 16—18, 20, 21, 27, 29, 30, 35, 38.
- 166 **leucantha** Spruce 48, 72—74, 77, 78, 82, 83, 87—89, 91—93, 96—98, 100, 101, 103—105, 107—112. I. 2, 16, 27.

SUB-GEN. CLADOPUS Spruce

- 167 **Francisci** (Hook.) Dum. 2, 11, 13, 14, 16, 17, 25—27, 34, 45, 48, 58, 61, 62, 88, 90—92, 98, 100, 105.
I. 1, 3, 6, 21, 27, 35, 38, 39.
- 168 **fluitans** (Nees) Spruce 11, 13—17, 27, 28, 43, 44, 48, 49, 58—60, 62, 65, 66, 69, 70, 73, 83, 88, 92, 97, 105, 106, 108, 109. I. 2, 16, 20, 21, 23, 27, 37—39.
var. *gigantea* Lindb. 58.

- XLI. *Nowellia* Mitt. (*Cephalozia* Dum. 1835)**
- 169 ***curvifolia*** (*Dicks.*) Mitt. (*Cephalozia curvifolia* Dum.) (14), 38, 48—50, 59, 62—64, 69—80, 83—92, 96—101, 103, 105, 106, 110—112. I. 1—3, 7, 16, 20, 21, 27, 29, 34, 35, 38—40.
- XLII. *Cephaloziella* (Spruce) Schiffn.**
- 170 ***byssacea*** (*Roth*) Warnst. 1, 3, 4, 10, 13, 14, 16—18, 26, 27, 30, 32—34, 37—45, 48—50, 52, 53, 55, 57—65, 69, 70, 72—75, 77—92, 95—101, 104—110, 112. I. 1—3, 9, 21, 31, 35. C.
var. *asperifolia* (*Jens.*) Macv. 82, 89, 98.
- 171 ***Douini*** Schiffn. 16.
- 172 ***bifida*** (*Schreb.*) Schiffn. 1, 3, 10, 13, 14, 16—19, (25), 32, 38, 39, 41, 45, 48, 50, 57, 59, 61, 69, 72, 74, 76, 78, 79, 82—85, 88, 90, 91, 96, 97, 106, 107, 109, 110, 112. I. 1—3, 9, 12, 17, 18, 20, 21, 27, 30, 35.
- 173 ***pulchella*** C. *Jens.* 32, 61.
- 174 ***Baumgartneri*** Schiffn. 13, 14.
- 175 ***integerrima*** (*Lindb.*) Warnst. 13, 14.
- 176 ***stellulifera*** (*Tayl. MS.*) Schiffn. 1, 13, 14, 34, 44, 45, 50, 57, 80, 97, 103. I. 27.
- 177 ***myriantha*** (*Lindb.*) Schiffn. 1, 39, 50, 51, 58, 69, 72, 74, 76, 80, 85, 89, 111.
- 178 ***Limprichtii*** Warnst. 13, 14, 33, 37, 45, 77.
- 179 ***aeraria*** (*Pears.*) Macv. 48, 49, 50.
- 180 ***elachista*** (*Jack*) Schiffn. 14. I. 20, 21.
- XLIII. *Prionolobus* Spruce**
- 181 ***striatulus*** (*Jens.*) Schiffn. 13, 14, 77, 92. I. 27.
- 182 ***Massalongi*** (*Spruce*) Schiffn. (*Cephaloziella Nicholsoni* Douin MS.) 1, 91.
- 183 ***Turneri*** (*Hook.*) Schiffn. 3, 10, 13, 14, 33, 38, 44, 45, 48. I. 2, 3. C.
- XLIV. *Eremonotus* Kaal. in Pears.**
- 184 ***myriocarpus*** (*Carr.*) Pears. 49, 69, 87, 88, 97, 98, 104, 106, 111.
- XLV. *Hygrobiiella* Spruce**
- 185 ***laxifolia*** (*Hook.*) Spruce 14, 42, 46, 48, 49, 57, 62, 64, 66, 68—70, 72, 73, 75, 77, 86—92, 94, 95, 97—100, 103—106, 108, 112. I. 1—3, 16, 20, 21.
- XLVI. *Pleuroclada* Spruce**
- 186 ***albescens*** (*Hook.*) Spruce 88—90, 92, 94, 97, 106.
var. *islandica* (*Nees*) Spruce 91, 92, 100.

LXVII. *Odontoschisma* Dum.

187 *Sphagni* (*Dicks.*) *Dum.* 1—3, 11, 13—17, 20, 21, 25, 27, 28, 34, 37, 39, 40, 44, 46, 48, 49, 51, 54, 55, 57—64, 66, 69, 70, 72—79, 81, 83—93, 96—112. I. 1—3, 7, 9, 12—16, 18—23, 25—31, 34, 35, 37—39.

var. *erectum* *Macv.* 62, 73.

188 *denudatum* (*Nees*) *Dum.* 13, 14, 17, 48, 57—62, 69, 71—74, 78, 81, 83—85, 87, 88, 97—99, 103, 107, 109, 111, 112. I. 1, 21, 27, 34, 38.

var. *elongatum* *Lindb.* 88, 99, 111.

189 *Macounii* (*Aust.*) *Underw.* 88.

XLVIII. *Adelanthus* Mitt.

190 *decipiens* (*Hook.*) *Mitt.* 4, 48, 49, 70, 97—101. I. 1—3, 27—30, 35, 39.

191 *dugortiensis* *Douin et Lett* I. 27.

XLIX. *Calypogeia* *Raddi* (*Kantia* S. F. Gray)

192 *Trichomanis* (*L.*) *Corda* 1—6, 10, 13—18, 20, 23, 25—27, 37—40, 44—46, 48—55, 57—66, 69—93, 95—112. I. 1—3, 6, 7—9, 13—23, 26—30, 34, 35, 37—40. C.

var. *aquatica* *Ingham* 2, 57, 62, 64, 69, 70.

193 *Neesiana* (*Carest. et Massal.*) *Massal.* 14, 17, 64, 84, 97, 103.

194 *fissa* (*L.*) *Raddi* (*Kantia Sprengelii* *Pears.*) 1—6, 10, 13—18, 23, 24, 27, 33—37, 39—46, 48, 49, 57, 59—64, 70, 72—93, 95—100, 102—112. I. 5, 26, 27, 37.

195 *sphagnicola* (*Arnell et Perss.*) *Warnst.* 13, 14, 17, 96.

196 *submersa* (*Arnell*) *Massal.* 60, 62.

197 *suecica* (*Arnell et Perss.*) *K. Müll.* 97.

198 *arguta* *Nees et Mont.* 1, 3—6, 10, 11, 13, 14, 16—18, 23, 27, 33—35, 37, 39, 40, 42, 44—46, 48—50, 54, 55, 57—60, 62—64, 69, 71, 72, 74—79, 82—84, 86, 96—100, 102—106, 108—112. I. 1, 2, 6, 7, 9, 12—14, 16, 18, 20, 21, 27, 28, 35, 38. C.

L. *Bazzania* S. F. Gray

199 *trilobata* (*L.*) *Gray* 1, 3, 4, 14, 16, 34, 37, 39, 40, 44—46, 48, 49, 57, 59, 60, 62—64, 69—74, 85—90, 92, 96—102, 105. I. 1—3, 13, 16, 20, 21, 27—29, 33, 35, 38—40. C.

200 *tricrenata* (*Wahl.*) *Pears.* 48, 49, 64, 65, 69, 70, 73, 75, 76, 78, 88, 92, 94, 97, 98, 100, 101, 103—106, 109—111. I. 1, 2, 27.

201 *triangularis* *Pears.* 44, 48, 49, 60, 65, 69, 70, 86—88, 90, 97—102, 105, 108, 110—112. I. 1, 2, 6, 27—29.

202 *Pearsoni* (Steph.) Pears. I. 2, 27.

LI. *Lepidozia* Dum.

SUB-GEN. EULEPIDOZIA Spruce

- 203 *pinnata* (Hook.) Dum. 1, 3, 34, 44, 45, 48, 49, 58, 60, 63, 64, 70, 71, 75, 97, 98, 100—102, 105, 112. I. 1—3, 8, 16, 20, 21, 27, 29, 34, 35.
var. *minor* Macv. 60, 71.
- 204 *reptans* (L.) Dum. 1—7, 11, 13, 14, 16—18, 24, 27, 30, 33—42, 44—52, 54, 55, 57—65, 68—78, 80—93, 96—112. I. 1—3, 7—9, 12, 13, 15, 18—23, 26—31, 33, 35, 36, 38—40. C.
var. *tenera* (Hüben.) Nees 59, 69, 87, 97.
var. *julacea* Nees 36, 83.
- 205 *Pearsoni* Spruce 46, 48, 50, 57, 59, 60, 65, 70, 73—76, 78, 87, 90, 97—105, 108, 109, 111. I. 1, 27.

SUB-GEN. MICROLEPIDOZIA Spruce

- 206 *trichoclados* K. Müll. 1, 13, 14, 46, 48, 58, 60, 62, 65, 73, 75, 83—91, 93, 96—98, 100, 103, 105, 107—111. I. 1, 2, 9, 16, 20, 21, 27, 28.
- 207 *setacea* (Web.) Mitt. 1—4, 6, 9, 10, 13, 14, 16, 17, 25, 27, 34, 37, 39—44, 46, 48, 49, 55, 57—66, 69—74, 76—79, 81—83, 85, 87—92, 96—112. I. 1—3, 6, 7, 9, 14, 17, 18, 20, 21, 27, 28, 31, 35, 38, 39.
var. *sertularioides* (Hüben.) Cooke 48, 59, 60, 72, 74, 77, 78, 81, 83, 85, 87, 92, 97, 102, 103, 107—112. I. 1, 27.

SUB-FAMILY PTILIDIOIDEAE.

LII. *Blepharostoma* Dum.

- 208 *trichophyllum* (L.) Dum. 1, 3, 14, 16, 37, 39, 40, 42, 44, 48, 49, 54, 57, 59, 60, 62—67, 69—74, 76—79, 83, 85—92, 96—105, 107—109, 112. I. 1—3, 6, 16, 20, 27, 31, 38, 39.

LIII. *Chandonanthus* Mitt.

- 209 *setiformis* (Ehrh.) Lindb. 88—92, 96, 97, 108, 109.
var. *alpinus* (Hook.) Kaal. 89—92, 94, 96, 97, 109.
var. *nemoides* Kaal. (89), 92.

LIV. *Anthelia* Dum.

- 210 *julacea* (L.) Dum. (3), 46, 48, 49, 65, 69—71, 73, 75, 85—90, 92, 94—101, 103—108, 110—112. I. 1, 2, 16, 20, 27, 34, 35, 38, 40.
var. *gracilis* Hook. 48, 49, 88—90, 92, 96—98, 108, 109. I. 1.
- 211 *Juratzkana* (Limp.) Trevis. 49, 88—90, 92, 96—98, 108, 109.

- LV. *Herbérta* S. F. Gray
- 212 *adunca* (Dicks.) Gray 46, 48, 49, 69, 70, 86—88, 90, 96—105, 110—112. I. 1—3, 7, 16, 20, 27, 29, 35, 39, 40.
var. *alpina* Macv. 88, 112.
- LVI. *Mastigophora* Nees
- 213 *Woodsii* (Hook.) Nees 87, 88, 97—99, 104, 105, 108.
I. 1, 2, 27.
- LVII. *Ptilidium* Nees
- 214 *ciliare* (L.) Hampe 3, 4, 13, 15, 17, 25—28, 37, 39, 40, 42, 44—50, 52, 54, 55, 57—66, 69—73, 75—78, 80—92, 94—100, 104, 106—109, 111, 112.
I. 1, 2, 27.
var. *inundatum* Schiffn. 92.
- 215 *pulcherrimum* (Web.) Hampe 5, 57, 62, 64, 65, 78, 83—85, 88, 92, 99.
- LVIII. *Trichocolea* Dum.
- 216 *tomentella* (Ehrh.) Dum. 1, 3—6, 8, 13, 14, 20, 34, 35, 37—40, 44—46, 48, 49, 52, 57—60, 62—64, 69—77, 83, 85—92, 96—103, 105, 106, 109. I. 1, 2, 8, 18, 20, 27, 34—36, 38—40.
- SUB-FAMILY SCAPANIOIDEAE.
- LIX. *Diplophyllum* Dum.
- 217 *albicans* (L.) Dum. 1—7, 10, 11, 13, 14, 16—18, 20—24, 27, 28, 30, 33—42, 44—55, 57—66, 69—112. I. 1—3, 6, 7, 9, 12—16, 18—23, 26—31, 34—40. C.
- 218 *taxifolium* (Wahlenb.) Dum. 49, 88—90, 92, 94, 97, 106.
- 219 *obtusifolium* (Hook.) Dum. 3, 4, 13, 14, 17, 48, 58, 61, 67, 77, 85, 89—91, 93, 97, 112. I. 1, 3, 4, 21, 37.
- 220 *gymnostomophilum* Kaal. 89.
- LX. *Scapania* Dum.
- 221 *compacta* (Roth) Dum. 1—5, 10, 13, 14, 16, 17, 25—27, 36, 37, 40—42, 44—46, 48—50, 57, 59, 60, 62—64, 69—79, 82—92, 96—103, 106—110, 112.
I. 1, 2, 4, 13, 20, 27, 31, 32, 37—40. C.
- 222 *subalpina* (Nees) Dum. 1, 3, 43, 44, 48, 49, 63, 65, 72—79, 83, 85—92, 95—99, 101, 103—105, 107—110, 112. I. 1, 2, 6, 20, 27, 39.
var. *undulifolia* Nees 48, 60, 66, 97.
- 223 *Bartlingii* (Hampe) Nees 44, 64—66, 69, 89, 90.
- 224 *aequiloba* (Schwaegr.) Dum. 3, 6, 39, 48, 49, 57, 59, 60, 62, 64—66, 69, 76, 85, 87—90, 92, 95, 97, 98, 106, 108. I. 1, 2, 3, 8, 9, 13, 20, 21, 28, 29, 34.
- 225 *calpicola* (Arn. et Perss.) Ingham 88.

- 226 **gracilis** (*Lindb.*) *Kaal.* 1—7, 11, 14, 20, 27, 34, 37, 39, 40, 42, 44—49, 51, 52, 57—62, 64—66, 69—71, 73—79, 82—93, 95—112. I. 1, 2, 7, 12, 13, 16, 20, 21, 27, 28, 30, 31, 35, 37—40. C.
 var. *laxifolia* *Carr.* 48, 73, 78, 88, 96—100, 102, 105, 106, 108, 110, 111. I. 1, 2, 27, 35, 38.
 var. *integrifolia* *Lindb.* 60, 72, 73, 97, 98, 108.
 var. *minor* *Pears.* 48, 59, 60, 73, 86, 88, 91, 97—99, 101, 102, 109—112.
- 227 **aspera** *Bernet* 3, 4, 6, 13, 14, 27, 33—35, (37), 39, 40, 49—51, 57, 60, 64, 65, 69, 71, 87, 88, 90, 92, 97, 98, 100, 104—106, 108—110. I. 2, 6, 9, 13, 16, 21, 27, 30.
- 228 **crassiretis** *Bryhn* 49, 88.
- 229 **nemorosa** (*L.*) *Dum.* 1—4, 6, 13, 14, 16—18, 20—23, 25—27, 32—34, 37—42, 44—46, 48—52, 54, 55, 57—60, 62—65, 68—75, (77), 78, 79, 83—92, 95—101, 103, 105, 106, 110. I. 1—3, 7, 9, 12, 13, 16, 20, 21, 27, 28, 30, 31, 34—36, 38—40. C.
 var. *alata* (*Kaal.*) *K. Müll.* 48.
 var. *uliginosa* *Jensen* 13, 14, 34, 37, 45, 48, 49, 62, 69, 71, 86, 87, 91, 97—99, 105. I. 27.
- 230 **nimbosa** *Tayl.* 49, 88, 92, 94, 96, 97, 106. I. 1, 27.
- 231 **ornithopodioides** (*With.*) *Pears.* 49, 70, 88, 92, 94, 97—99, 102, 104, 106. I. 1, 27.
- 232 **dentata** *Dum.* (*S. purpurascens* *Pears.*) 1—4, 14, 34, 39—46, 48—51, 57—60, 62—66, 69—112. I. 1, 2, 6, 12, 20, 21, 27, 31, 35, 38.
 var. *speciosa* *Nees* 46, 48, 62, 63, 65, 89, 94, 97. I. 1, 6, 12, 20, 27, 31, 35, 37, 38.
 var. *ambigua* *De Not.* 48, 49, 63, 64.
- 233 **intermedia** (*Husnot*) *Pears.* 39, 46, 48, 57, 62, 64, 66, 72, 75, 83, 85, 87, 88, 90, 92, 97, 99, 102, (104). I. 2, 6, 7, 27, 35, 39.
- 234 **undulata** (*L.*) *Dum.* 1—6, 13, 14, 16, 17, 20, 21, 23, 25, 27, 34, 36—42, 44—51, 55, 57—60, 62—66, 68—80, 82—92, 94, 96—112. I. 1—3, 6, 7, 9, 13—23, 26—30, 33—35, 37, 38.
- 235 **uliginosa** (*Swartz*) *Dum.* 1, 3, 49, 60, 62, 64, 88—90, 92, 94, 96—98, 103, 104, (109). I. 1, 2, 12, 20, 27, 31.
- 236 **obliqua** (*Arnell*) *Schiffn.* 48, 49, 88, 92, 94, 96—99.
- 237 **paludosa** *K. Müll.* 88, 90, 92, 106.
 var. *vogesiaca* *K. Müll.* 90, 92.

- 238 *irrigua* (Nees) Dum. 1, 3, 7, 10, 13, 14, 16—18, 21, 23, 25, 27, 33, 34, 37—40, 42—45, 47—51, 54, 55, 57—62, 65, 66, 69, 71—75, 77—93, 95—112. I. 1, 2, 6, 20, 27, 28, 38.
var. *alpina* Bryhn 88.
- 239 *curta* (Mart.) Dum. 3, 4, 13, 14, 16, 18, 27, 33, 34, 37—40, 42, 44—51, 57—60, 62—65, 69, 70, 72—85, 87—92, 96—100, 102, 103, 105—112. I. 1, 2, 6, 16, 20, 27—30, 35, 39, 40.
var. *genuculata* (C. Massal.) K. Müll. 92.
- 240 *rosacea* (Corda) Dum. 14, 39, 50, 57, 58, 65, 69, 72, 73, 85, 87—92, 96—98, 108, 109. I. 35.
- 241 *umbrosa* (Schrad.) Dum. 3, 14, 37, 39, 48, 49, 57, 58, 62, 64, 65, 69, 70, 72—74, 78, 81, 83—93, 96—101, 105—112. I. 1, 2, 6, 7 or 10, 16, 20, 21, 25, 27, 35, 37—40.

SUB-FAMILY RADULOIDEAE.

LXI. *Radula* Dum.

- 242 *complanata* (L.) Dum. 1, 3—6, 8, 10, 13—18, 20, 21, 23, 25—28, 30—40, 44—55, 57, 59—66, 69—111. I. 1—3, 6—9, 12—22, 26—30, 34, 35, 37—40. C.
- 243 *Lindbergii* Gottsche 1, 11, 40, 48, 49, 52, 69, 70, 72, 73, (74), 76, 77, 85—90, 92, 97—101, 103, 105, 109, 111. I. 2, 27.
var. *germana* (Jack) 48, 49, 88, 90, 98, 99.
- 244 *Carringtoni* Jack 97. I. 1, 2, 27.
- 245 *aquilegia* Tayl. 48, 49, 69, 70, 73, 86, 97—100, 103—105, 112. I. 1—3, 6, 7, 27, 34 or 35, 38.
- 246 *Holtii* Spruce (4). I. 2, 27.
- 247 *voluta* Tayl. 48—50, 70, 75. I. 1, 2, 6, 27, 30.

SUB-FAMILY PLEUROZIOIDEAE.

LXII. *Pleurozia* Dum.

- 248 *purpurea* (Lightf.) Lindb. 73—75, 86—88, 90, 92, 96—111. I. 1, 2, 16, 17, 20, 21, 27, 34, 35, 38—40

SUB-FAMILY MADOTHECOIDEAE.

LXIII. *Madotheca* Dum. 1822 (*Povella* Lindb. 1869)

- 249 *laevigata* (Schrad.) Dum. 1, 3, 4, 6, 10, 33—37, 39, 40, 42, 44—46, 48, 49, 52, 60, 62, 64—66, 69, 70, 72, 73, (74), 75, 77, 82, 83, 85—90, 96—101, 103, 105. I. 1—3, 20, 36, 39. C.
var. *killarniensis* Pears. I. 1.
var. *obscura* Nees 40, 48, 49, 82, 83, 85. C.
var. *Thuja* Nees 1, 3, 13, 14, 36, 40, 83, 85.

- 250 *Thuja* (*Dicks.*) *Dum.* 1, 3, 4, 45, 46, 48, 49, 52, 74, 82, 85, 91, 96, 98, 100, 101, 103, 110. I. 1—3, 6, 20, 39. C.
- 251 *platyphylla* (*L.*) *Dum.* 1—6, 8—10, 13—18, 20, 22, 23, 25—42, 44, 45, 47—55, 57, 59, 60, 62—65, 69—73, 76, 80, 81, 83, 85—88, 90—92, 95, 98, 101. I. 1, 2, 6—9, 12, 20, 22, 27—30, 38, 39. C.
- 252 *rivularis* *Nees* (3), 13, 16, 40, 42, 44, 49, 50, 57, 64—66, 69, 70, 72, 73, 75—93, 95, 96, 98, 99, 101, 109. I. 32, 38, 39.
- var. *simplicior* (*Zett.*) *K. Müll.* 77, 83, 87, 88. I. 32, 38, 39.
- var. *faeroensis* *C. Jens.* 112.
- 253 *Porella* (*Dicks.*) *Nees* 2, 3, 48. I. 1.

SUB-FAMILY JUBULOIDEAE.

Tribe Lejeuneae.

LXIV. *Colurolejeunea* (*Spruce*) *Schiffn.*

- 254 *calyptrifolia* (*Hook.*) *Schiffn.* 1, 48, 49, 70, 86, 97, 98, 100, 104, 105. I. 1—3, 6, 7, 21, 27, 38.

LXV. *Cololejeunea* (*Spruce*) *Schiffn.*

- 255 *calcareo* (*Lib.*) *Schiffn.* (3), 4, 34, 35, 48, 49, 57, 59, 60, 64—66, 69, 70, 86, 88—90, 92, 96—99, 105, 109. I. 1, 2, 21, 31, 38—40.
- 256 *Rossettiana* (*Massal.*) *Schiffn.* 34, 40, 57, 60, 64—66, 81. I. 2, 21.
- 257 *minutissima* (*Sm.*) *Schiffn.* 1, 3, 4, 8, 10, 11, 13, 14, 16, 17, 45, 48, 52, 60, 63, 70, 97, 103. I. 1—3, 21, 27. C.
- 258 *microscopica* (*Tayl.*) *Schiffn.* 1, 48, 49, 73, 86, 88, 97—100, 103—105. I. 1, 2, 9, 27, 39.

LXVI. *Lejeunea* *Lib.*

- 259 *flava* (*Swartz*) *Nees* I. 1, 2.
- 260 *Holtii* *Spruce* I. 1, 2.
- 261 *cavifolia* (*Ehrh.*) *Lindb.* 1—6, 10, 13, 14, 16, 17, 20, 33—37, 39—46, 48—50, 53—55, 57—60, 62—66, 69—92, 94—112. I. 1—3, 6—9, 12—16, 18, 20—22, 26—30, 34, 38, 39. C.
- var. *planiuscula* *Lindb.* 14, 48, 49, 64—66, 72, 73, 75, 78, 79, 81, 82, 84, 90, 97. I. 1.
- var. *heterophylla* *Carr.* 1, 4, 10, 19, 45, 46, 48—50, 64, 73—75, 81, 90, 108, 110. I. 1, 2, 6, 20, 27, 35, 38, 39.
- 262 *patens* *Lindb.* 4, (37), 45, 46, 48, 62, 64, 66, 69, 70, 73—76, 83, 85—90, 97—105, 108—112. I. 1—3, 6, 7 or 10, 9, 13, 14, 16, 20, 27—29, 31, 34, 35, 38, 39.

- 263 *Macvicari* Pears. 97.
264 *diversiloba* Spruce I. 1, 2.

LXVII. *Microlejeunea* (Spruce) Jack et Steph.

- 265 *ulicina* (Tayl.) Evans 3, 4, 6, 10, 11, 13, 14, 16, 17, 24, 33, 34, 40, 48, 49, 59, 60, 62, 64, 65, 69, 70, 73—75, 87, 88, 97—103, 105, 110. I. 1, 2, 4, 6, 7, 12, 14, 16, 18, 20, 21, 27, 29, 35, 38, 39.

LXVIII. *Drepanolejeunea* (Spruce) Schiffn.

- 266 *hamatifolia* (Hook.) Schiffn. (4), 48, 49, 64, 65, 69, 70, 86, 89, 97—99, 103—105, 110. I. 1, 2, 3, 9, 14, 16, 17, 20, 21, 27, 29, 31, 34, 35, 38, 39.

LXIX. *Harpalejeunea* (Spruce) Schiffn.

- 267 *ovata* (Hook.) Schiffn. 1, (4), 48, 49, 65, 69, 70, 73, 86, 97—100, 103—105, 110. I. 1—3, 6, 9, 27, 35, 38, 39.

LXX. *Marchesinia* S. F. Gray

268. *Mackaii* (Hook.) Gray 1, 3, 4, 6, 34, 39, 41, 44—46, 48, 49, 60, 69, 70, 74, 97, 100, 102—104. I. 1—4, 9, 16, 20, 21, 27, 38, 39.

Tribe Frullanieae.

LXXI. *Jubula* Dum.

- 269 *Hutchinsiae* (Hook.) Dum. 1, 3, 4, 44, 46, 48, 49, 63, 64, 70, 71, 97, 98, 100—102. I. 1—4, 16, 20, 27, 38.

LXXII. *Frullania* Raddi

SUB-GEN. THYOPSIELLA Spruce

- 270 *germana* Tayl. 1, 43, 45, 48, 70, 71, 74, 85, 97—105, 110, 112. I. 1—3, 9, 20, 27, 30, 35, 38, 39.
271 *Tamarisci* (L.) Dum. 1—8, 10, 11, 13—15, 17, 20, 24, 26, 33—35, 37—40, 42, 44—51, 54, 55, 57, 59, 60, 62—66, 69—93, 95—112. I. 1, 2, 6—9, 12—16, 18—20, 22, 26—30, 34, 37—40. C.
var. *robusta* Lindb. 48, 97, 100, 104, 105. I. 1, 2, 20.
var. *cornubica* Carr. 1, 60, 71, 74—76, 98, 103, 108, 110—112. I. 2, 27, 39. C.
var. *atrovirens* Carr. (3). I. 1, 2.
272 *microphylla* (Gottsche) Pears. 1, 4, 45, 48, 49, 64, 69, 71, 74, 86, 97, 103. I. 1—3, 7, 27, 34, 35.
273 *maritima* Steph. 97, 112.
274 *fragilifolia* Tayl. 1, 3, 4, 40, 43, 45, 48—50, 60, 64, 65, 69, 71, 73, 74, 83, 85, 86, 88—92, 95—103, 105, 107—110, 112. I. 1—3, 7, 20, 27, 35, 38, 39. C.

SUB-GEN. TRACHYCOLEA *Spruce*

- 275 *dilatata* (L.) *Dum.* 1—8, 10, 13—18, 20—31,
33—42, 44—55, 57—66, 69—93, 96—112. I.
1—3, 5, 6, 8, 9, 12—15, 18—23, 26—30, 33,
34, 37—39. C.
var. *microphylla* *Nees* 10, 40, 87, 111.

Order IV-Anthocerotales.**Family VI. ANTHOCEROTACEAE.**LXXIII. *Anthoceros* L.

- 276 *punctatus* L. 1, 3, 4, 13, 14, 16, 17, 20, 23, 25—27, 33,
34, 37, 40, 42, 44, 45, 48, 49, 52, 55, 57, 59,
62, 74, 80, 89, 90, 92, 97, 99, 102, 105, 109.
I. 1, 2, 4, 20, 21, 27, 35, 38—40.
277 *crispulus* (Mont.) *Douin* 13, 14, 17, 48.
278 *Husnoti* *Steph.* 13, 14, 48, 49.
279 *Stableri* *Steph.* 14, 69, 109.
280 *laevis* L. 1, 3, 4, 10, 13, 14, 16, 17, 33, 34, 38, 42,
44—46, 48, 49, 59, 60, 69, 74—76, 80, 83, 84,
97, 101, 102, 109. I. 1. C.
281 *dichotomus* *Raddi* 3.

Index to Genera.

(SYNONYMS IN ITALICS.)

	Page.		Page.
Acrobolbus - - -	23	Lejeunea - - -	33
Adelanthus - - -	28	Lepidozia - - -	29
Alicularia - - -	19	Leptoscyphus - - -	24
Anastrepta - - -	23	Lophocolea - - -	25
Anastrophyllum - - -	21	Lophozia - - -	21
Aneura - - -	16	Lunularia - - -	15
Anthelia - - -	29	Madotheca - - -	32
Anthoceros - - -	35	Marchantia - - -	16
<i>Aplozia</i> - - -	20	Marchesinia - - -	34
Bazzania - - -	28	Marsupella - - -	18
Blasia - - -	17	Mastigophora - - -	30
Blepharostoma - - -	29	Metzgeria - - -	16
Calypogeia - - -	28	Microlejeunea - - -	34
Cephalozia - - -	26	Moerckia - - -	17
Cephaloziella - - -	27	<i>Mylia</i> - - -	24
Chandonanthus - - -	29	<i>Nardia</i> - - -	19
Chiloscyphus - - -	25	Nowellia - - -	27
<i>Clasmatocolea cuneifolia</i> - - -	25	Odontoschisma - - -	28
Cololejeunea - - -	33	Pallavicinia - - -	17
Colurolejeunea - - -	33	Pedinophyllum - - -	24
Conocephalum - - -	15	Pellia - - -	17
Diplophyllum - - -	30	Petalophyllum - - -	17
Drepanolejeunea - - -	34	Plagiochila - - -	24
Dumortiera - - -	15	Pleuroclada - - -	27
Eremonotus - - -	27	Pleurozia - - -	32
Eucalyx - - -	19	<i>Povella</i> - - -	32
Fossombronia - - -	18	Preissia - - -	15
Frullania - - -	34	Prionolobus - - -	27
Geocalyx - - -	25	Ptilidium - - -	30
Gymnocolea - - -	21	Radula - - -	32
Gymnomitrium - - -	18	Reboulia - - -	15
Haplomitrium - - -	18	Riccia - - -	14
Haplozia - - -	20	Ricciocarpus - - -	15
Harpalejeunea - - -	34	Saccogyna - - -	25
Harpanthus - - -	25	Scapania - - -	30
Herberta - - -	30	Sphaerocarpus - - -	14
Hygrobiiella - - -	27	Sphenolobus - - -	23
Jamesoniella - - -	21	Targionia - - -	15
Jubula - - -	34	Trichocolea - - -	30
<i>Kantia</i> - - -	28		

Corrigenda.

Page 11.—Before v.c. 70, Cumberland, *add* v.c. 69 Westmorland with N. Lancashire. *Hep. and Musc. of Westmorland*, Nat., 1896-8, G. Stabler.

Page 16.—Family V. should be Family IV.

Page 16.—Anacrogynae should be Aanacrogynae.