

A Census Catalogue of British and Irish Bryophytes 2021

T.L. Blockeel | N.G. Hodgetts | S.L. Pilkington | O.L. Pescott



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Front cover: *Breutelia chrysocoma*, a widespread moss in western Britain and Ireland but rare elsewhere in western Europe. *Claire Halpin*

Back cover: *Reboulia hemisphaerica*, a thallose liverwort found throughout Britain and Ireland but with a very localised distribution, accompanied here by *Riccia sorocarpa*. *Claire Halpin*

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Introduction

This publication has its foundation in the long series of Census Catalogues that have been published at intervals for more than a century by the British Bryological Society and its precursor the Moss Exchange Club. Its immediate predecessor is *A Checklist and Census Catalogue of British and Irish Bryophytes – Updated 2008* by Hill *et al.* (2008). Since that edition there have been numerous changes to the nomenclature and systematics of our bryophytes, in many cases prompted by molecular studies. At the same time almost 40 taxa have been added to the British and Irish list in the intervening years. Large numbers of new records were made during recording for the new Atlas of British and Irish Bryophytes (Blockeel *et al.*, 2014), and many members of the Society regularly record distributional data. With the recent publication of formal bryophyte checklists for both Europe (Hodgetts *et al.*, 2020) and Britain and Ireland (Blockeel *et al.*, 2021), now is the appropriate time to issue a new edition of the Census Catalogue, reflecting current nomenclature and incorporating the numerous updates to the known distribution of our bryophytes at a local level. To this extent it supplements the formal floras of Paton (1999) and Smith (2004).

Vice-county recording and its advantages

For the purposes of botanical recording, Great Britain is divided into 112 vice-counties (including the Isle of Man); Ireland is divided into 40 vice-counties. The Channel Islands, though geographically part of Normandy, are treated conventionally as a British vice-county. The vice-counties are geographical units based on administrative regions (counties), and their definition is discussed in a later section of this introduction.

The system of vice-county recording adopted by the British Bryological Society is as follows. Additions to the recorded distribution are accepted only if supported by a specimen of the species in question (often referred to as a voucher specimen). In most cases the voucher is checked by the Recorder for Liverworts or the Recorder for Mosses as appropriate. A minority of specimens are checked by other competent bryologists, whose authority is then cited along with the record. Voucher specimens sent to the Recorders are normally retained and deposited in the herbarium of the Society (BBSUK) or occasionally in another major public herbarium. They are therefore available for checking again in future if necessary. New records are published once a year, currently in the Society's periodical *Field Bryology*. The records are transferred to the Society's database, currently held in the Biological Records Centre at Wallingford, kindly hosted by the UK Centre for Ecology & Hydrology.

Vice-county recording is often criticised as archaic; and vice-counties are admittedly not ideal as the basis of a modern recording system. Their major drawback is that they are not indicated on Ordnance Survey maps. However, digitised versions of the boundaries are now available and can be downloaded or viewed on the internet.

The vice-county recording system has many advantages. It ensures that, at a broad scale of resolution, distributional data are checked by a competent expert. It ensures that herbarium material from a wide range of localities is available if a species needs to be revised. It allows bryologists to publish occasional finds that they may make, and at the same time provides a verification service for checking their specimens.

Perhaps the greatest advantage of the system is in encouraging amateurs and beginners. Bryologists anywhere in Britain and Ireland can get some idea of the taxa that they are likely to find in their area. For a beginner, it is a great encouragement to make a new find for an area and have it published. Indeed the encouragement provided by the system has been a major factor in raising the standard of field bryology in these islands, so that it is now one of the highest in the world.

Finally, the vice-county records are a valuable complement to data accumulated and mapped on a grid-square basis in the Society's database. Localised records can be inspected on the National Biodiversity Network Atlas <https://nbnatlas.org/> simply by typing in the name of the species. The existence of vice-county data of high quality allows data

from general recording to be checked both for errors and omissions. In practice, such checks are applied only at intervals, and there are ordinarily some records in the BBS database that are accepted for the NBN Atlas but which are not present in the current Census Catalogue.

History of distributional recording

The Moss Exchange Club was founded in 1896. At about the same time, new floras were published by Dixon & Jameson (1896) and Lett (1902). Interest in the distribution of British bryophytes soon increased to the point where it was possible to publish a census of their occurrence in the vice-counties of Great Britain and Ireland (Ingham, 1907, Macvicar, 1905). From these early Census Catalogues, the present system of vice-county recording has developed.

The following chronology lists the main events in the progress of distributional recording in Britain and Ireland.

- 1881 *London Catalogue of British Mosses*, ed. 2 (Lees, 1881), with distribution in 18 'provinces' of Britain. This came at about the time of a marked increase in publication of county lists of bryophytes, records appearing in the *Report of the Botanical Record Club* and other journals.
- 1896 Formation of the Moss Exchange Club; this lasted until 1922 (Foster, 1979), and on 1 January 1923 was formally reconstituted as the British Bryological Society.
- 1897 E.C. Horrell published a note in the circulating notebook of the Moss Exchange Club, indicating that by that time fairly good lists of mosses had been published for about 50 British vice-counties. He intended a census; but he was not a good organiser, and the scheme lapsed.
- 1902 Publication of a hepatic (liverwort) flora by Lett (1902), including (very incomplete) vice-county distributions for each species.
- 1905 *Census Catalogue of British Hepatics* ed. 1 (Macvicar, 1905).
- 1907 *Census Catalogue of British Mosses* ed. 1 (Ingham, 1907).
- 1909 Vice-county records were indicated by an asterisk in the *Report of the Moss Exchange Club*. This practice continued

- until 1946, when publication of the *Report of the British Bryological Society* (as it then was) ceased and a new format was introduced for the Society's *Transactions*. However, until 1937, new vice-county records were not published unless material was submitted for distribution in the annual exchange.
- 1913 *Census Catalogue of British Hepatics* ed. 2 (Ingham, 1913).
- 1923 J.B. Duncan became Recorder of Mosses for the newly founded British Bryological Society and opened an official BBS book of moss records. All vice-county records and amendments made between 1907 and 1961 were entered in this book, with the exception of the period 1926–34, for which they were entered in an interleaved copy of the 2nd edition of the moss catalogue. Thereafter, new moss records have been entered (by means of a cross-reference to the published lists) in the Recorder's copy of the current Census Catalogue, and since 2010 they have been updated to a Census Catalogue Database, maintained at that time by T.L. Blockeel. An official BBS record book for liverworts was opened in 1923 likewise by A. Wilson. This was superseded in 1963 by annotations in the Recorder's copy of the current Census Catalogue.
- 1926 *Census Catalogue of British Mosses* ed. 2 (Duncan, 1926). *Sphagnum* mosses were entered according to two systems, Dixon's and Warnstorf's. However, Dixon's system was not used after this date, and the Warnstorfian system of recording *Sphagnum* was maintained by W.R. Sherrin.
- 1929 Issue of a first supplement to the moss catalogue, bringing distributions up to date. Records were indicated by amendments only, without recorder, locality or date.
- 1930 *Census Catalogue of British Hepatics* ed. 3 (Wilson, 1930).
- 1935 Supplements to both Census Catalogues were issued by the BBS in the same style as the 1929 supplement, and including all the records given there.
- 1937 Full details of new vice-county records subsequent to the 1935 supplements were published in the report for 1936. From this time onwards, all new records have been published with details of locality, recorder and date. This year also saw publication of a first *Census Catalogue of British Sphagna* (Sherrin,

- 1937); a second edition of the *Sphagnum* catalogue was published in 1946 (Sherrin, 1946).
- 1946 The BBS was re-formed and revitalised after the 1939–45 war. From this time onwards, new records have been published only if supported by a voucher. Prior to this, records were sometimes accepted on the basis of manuscript lists.
- 1952 Following publication of a new checklist of mosses by Richards & Wallace (1950), the Warnstorffian system of recording *Sphagnum* was dropped. The group ceased to have a separate Recorder.
- 1960 A scheme for mapping bryophytes in 10 km squares of the National grid was launched. Maps were published in the *Transactions of the British Bryological Society* from 1963.
- 1963 *Census Catalogue of British Mosses* ed. 3 (Warburg, 1963).
- 1965 *Census Catalogue of British Hepatics* ed. 4 (Paton, 1965). The nomenclature in this catalogue was largely based on a checklist by Jones (1958).
- 1975 New vice-county records were published in the *Bulletin of the British Bryological Society* (and from 2004 its successor *Field Bryology*) rather than in the *Journal of Bryology* (and its predecessor, the *Transactions of the British Bryological Society*).
- 1978 *Provisional Atlas of the Bryophytes of the British Isles*, with dot maps of 104 species on a 10 km grid (Smith, 1978a). Publication of *The Moss Flora of Britain and Ireland* (Smith, 1978b) stimulated work leading to the production of a new edition of the Census Catalogues.
- 1981 *Distribution of Bryophytes in the British Isles, a Census Catalogue of their Occurrence in Vice-Counties* (Corley & Hill, 1981). For the first time, liverworts and mosses were combined in a single edition.
- 1991 *Atlas of the Bryophytes of Britain and Ireland* Volume 1 Liverworts (Hill, Preston & Smith, 1991). This was the first of three volumes which were the end product of the BBS Mapping Scheme, initiated in 1960. Volume 1 contained an introductory paper, by C.D. Preston, on the history of bryophyte recording in Britain and Ireland.
- 1992 *Atlas of the Bryophytes of Britain and Ireland* Volume 2 Mosses (except Diplolepidae) (Hill, Preston & Smith, 1992).

- 1994 *Atlas of the Bryophytes of Britain and Ireland* Volume 3 Mosses (Diplolepidaceae) (Hill, Preston & Smith, 1994).
- 1998 *A Check-list and Census Catalogue of British and Irish Bryophytes* (Blockeel & Long, 1998).
- 2008 *A Checklist and Census Catalogue of British and Irish Bryophytes – Updated 2008* (Hill *et al.*, 2008).
- 2014 *Atlas of British & Irish bryophytes. The distribution and habitat of mosses and liverworts in Britain and Ireland* (Blockeel *et al.*, 2014).
- 2021 *A new checklist of the bryophytes of Britain and Ireland* (Blockeel *et al.*, 2021). This formal checklist was based on the European list of Hodgetts *et al.* (2020), but took a different view on the delimitation of certain genera.

Recorder for hepatics (liverworts) *Recorder for mosses*

1905	S.M. Macvicar	1906–1907	T. Barker
1906–1923	W. Ingham	1907–1923	W. Ingham
1923–1946	A. Wilson	1923–1946	J.B. Duncan
1947	G. Wigglesworth	1946–1965	E.F. Warburg
1948–1959	C.P. Castell	1966	A.R. Perry
1960–1976	J.A. Paton	1967–1975	A.C. Crundwell
1977–1986	M.F.V. Corley	1976–1985	M.O. Hill
1987–1997	D.G. Long	1986–1996	T.L. Blockeel
1998–2008	T.H. Blackstock	1997–2009	G.P. Rothero
2008–2017	S.D.S. Bosanquet	2010–2019	T.L. Blockeel
2018–	N.G. Hodgetts	2020–	S.L. Pilkington

Accuracy of vice-county records

It can be seen from the foregoing history that the system of recording has only gradually evolved to its present state. In the early years, a much less critical attitude was adopted. The first editions of the Census Catalogues were based mainly on literature records and manuscript lists.

Certain areas and groups of taxa were revised at an early stage, and contain relatively few errors. For example, Macvicar (1910) published a complete list of the known records of liverworts in Scotland. The Scottish data for this group are therefore generally reliable. Likewise, for some vice-counties such as Dorset (v.-c. 9) the original list of mosses was based on specimens that had been verified by a competent bryologist (in this case H. Boswell). But the data for several other vice-counties contained many inaccuracies.

As time has passed the more glaring errors have been eliminated. Warburg (1963) and Paton (1965) revised several distributions for their editions of the Census Catalogues, and Corley & Hill (1981) did likewise for their volume.

In addition to revisions of particular species, there has been a steady flow of county floras and county lists. Some such floras involved critical revision of the list of species for particular vice-counties. In these cases, the necessary amendments have generally been included along with the year's new vice-county records.

The Society's Mapping Scheme led to the creation of an Atlas database of bryophyte records, from which the published maps were plotted. As further records were added, this developed into the BBS database, which is currently held at the Biological Records Centre (BRC) at Wallingford.

The availability of this large mass of data in electronic form has provided a check on vice-county distributions presented in post-1990 Census Catalogues. For species, but not for all varieties, Blockeel & Long (1998) excluded vice-counties if there was no corresponding record in the BBS database. This practice was continued by Hill *et al.* (2008), and has been followed for the present edition.

Blockeel & Long (1998) likewise used the BBS database to distinguish vice-counties that lacked a recent record (i.e. a record made in the previous 50 years) by bracketing. This practice was continued by Hill *et al.* (2008) and we have done the same for the present volume, bringing forward the first date for 'recent' to 1970. Some records on the database are dated only to a period that may span several decades. We take the view that it is simplest to apply the post-1970 rule rigorously, accepting as 'recent' only those with an explicit post-1970 date, and hoping that recorders will send in fresh specimens that can be dated accurately.

Tracing distributional records

The chief sources of records listed here are the first editions of the Census Catalogues and the lists of additions and amendments published over the years by the BBS. Moreover, all vice-counties listed for a species correspond to localised records in the BBS database. Almost all are open for inspection on the internet, as the database is posted on the NBN Atlas. However, many records lack details other than a 10 km square (hectad) and an approximate date.

Even when details are lacking in the database, vice-county records should be traceable. Those accruing since 1935 have almost all been published. Most are represented by specimens in the BBS's herbarium (BBSUK) at National Museum Wales in Cardiff, others in the herbaria at the Royal Botanic Garden, Edinburgh (E) and the National Botanic Barden, Glasnevin, Dublin (DBN). The sources of Irish records are listed by Holyoak (2003). Details of British records can often be found in the notebooks kept by the Recorders, although some are poorly documented and many of the earliest records were based on manuscript lists that no longer exist. For revisions of critical taxa, lists of verified specimens and their locations are generally available with the appropriate Recorder.

Vice-counties of Great Britain and Ireland

The vice-counties of Great Britain were originally defined by Watson (1852). The vice-counties of Ireland were defined by Praeger (1901). Since those times, county boundaries have frequently changed, but vice-county boundaries are fixed. The boundaries of British vice-counties were described and mapped at 1:625,000 by Dandy (1969). Accurate boundaries, based on Dandy's more detailed base maps held at the Natural History Museum, were digitised in 2004. Webb (1980) clarified the position of vice-county boundaries in Ireland. Both Dandy and Webb assert the principle that the vice-county boundaries were fixed for all time at the moment of creation.

The boundaries of the Irish counties have changed less than those of the British ones, with the result that modern maps are still fairly useful for identifying the vice-county boundaries. The map published by Scannell & Synnott (1972) is also a useful guide, but bryologists working regularly or extensively in Ireland are strongly advised to consult Webb's (1980) authoritative account. However, an important correction to Webb's account is noted by Holyoak (2003) following Kelly (1984), namely that the famous oakwood at Derrycunihy is in H1.

The vice-county boundaries can be viewed or examined at high resolution on several websites. For Britain useful sites are 'Grab a Grid Reference': <https://www.bnhs.co.uk/2019/technology/grabagridref/gagr.php#map>, and <https://www.cucaera.co.uk/grp/>. An equivalent site for Ireland is <https://maps.biodiversityireland.ie/Map> (select Biological Vice-Counties under Admin Boundaries). The Botanical Society of Britain and Ireland (BSBI) provides a useful service that not only identifies vice-counties from grid references for both Britain and Ireland, but also converts between British and Irish grid references and latitude/longitude (<http://herbariaunited.org/gridrefVC/>). Digitised files of the British boundaries can be downloaded from the Biological Records Centre GitHub repository at <https://github.com/>

BiologicalRecordsCentre/vice-counties, and of the Irish vice-counties at <https://github.com/SK53/Irish-Vice-Counties>. Agreement between grid references and vice-counties in Britain can be checked at 1 km square resolution using datasets downloadable from the Biological Records Centre <https://www.brc.ac.uk/vcgrid>.

Maps showing the general disposition of the vice-counties are given here (Figures 1–3), but they are not adequate to locate borderline cases. Where greater detail is needed for British and Irish records, bryologists should consult the resources noted above. For convenience, we also include a map of the 100 km squares of the British and Irish National Grids, showing the correspondence between the alphabetic and numeric identifiers (Figure 4).

Names of vice-counties

There is no ‘official’ list of vice-county names. The names given here are those listed on the Biological Records Centre website, and are based on the most widely used variants.

Great Britain

1	West Cornwall	18	South Essex
2	East Cornwall	19	North Essex
3	South Devon	20	Hertfordshire
4	North Devon	21	Middlesex
5	South Somerset	22	Berkshire
6	North Somerset	23	Oxfordshire
7	North Wiltshire	24	Buckinghamshire
8	South Wiltshire	25	East Suffolk
9	Dorset	26	West Suffolk
10	Isle of Wight	27	East Norfolk
11	South Hampshire	28	West Norfolk
12	North Hampshire	29	Cambridgeshire
13	West Sussex	30	Bedfordshire
14	East Sussex	31	Huntingdonshire
15	East Kent	32	Northamptonshire
16	West Kent	33	East Gloucestershire
17	Surrey	34	West Gloucestershire

35	Monmouthshire	73	Kirkcudbrightshire
36	Herefordshire	74	Wigtownshire
37	Worcestershire	75	Ayrshire
38	Warwickshire	76	Renfrewshire
39	Staffordshire	77	Lanarkshire
40	Shropshire	78	Peeblesshire
41	Glamorganshire	79	Selkirkshire
42	Breconshire	80	Roxburghshire
43	Radnorshire	81	Berwickshire
44	Carmarthenshire	82	East Lothian
45	Pembrokeshire	83	Midlothian
46	Cardiganshire	84	West Lothian
47	Montgomeryshire	85	Fifeshire
48	Merionethshire	86	Stirlingshire
49	Caernarvonshire	87	West Perthshire
50	Denbighshire	88	Mid Perthshire
51	Flintshire	89	East Perthshire
52	Anglesey	90	Angus
53	South Lincolnshire	91	Kincardineshire
54	North Lincolnshire	92	South Aberdeenshire
55	Leicestershire	93	North Aberdeenshire
56	Nottinghamshire	94	Banffshire
57	Derbyshire	95	Moray
58	Cheshire	96	East Inverness-shire
59	South Lancashire	97	West Inverness-shire
60	West Lancashire	98	Argyll
61	South-east Yorkshire	99	Dunbartonshire
62	North-east Yorkshire	100	Clyde Isles
63	South-west Yorkshire	101	Kintyre
64	Mid-west Yorkshire	102	South Ebudes
65	North-west Yorkshire	103	Mid Ebudes
66	County Durham	104	North Ebudes
67	South Northumberland	105	West Ross
68	North Northumberland	106	East Ross
69	Westmorland	107	East Sutherland
70	Cumberland	108	West Sutherland
71	Isle of Man	109	Caithness
72	Dumfriesshire	110	Outer Hebrides

111 Orkney

112 Shetland

Ireland

H1 South Kerry

H2 North Kerry

H3 West Cork

H4 Mid Cork

H5 East Cork

H6 Waterford

H7 South Tipperary

H8 Limerick

H9 Clare

H10 North Tipperary

H11 Kilkenny

H12 Wexford

H13 Carlow

H14 Leix

H15 South-east Galway

H16 West Galway

H17 North-east Galway

H18 Offaly

H19 Kildare

H20 Wicklow

H21 Dublin

H22 Meath

H23 West Meath

H24 Longford

H25 Roscommon

H26 East Mayo

H27 West Mayo

H28 Sligo

H29 Leitrim

H30 Cavan

H31 Louth

H32 Monaghan

H33 Fermanagh

H34 East Donegal

H35 West Donegal

H36 Tyrone

H37 Armagh

H38 Down

H39 Antrim

H40 Londonderry

C Channel Islands

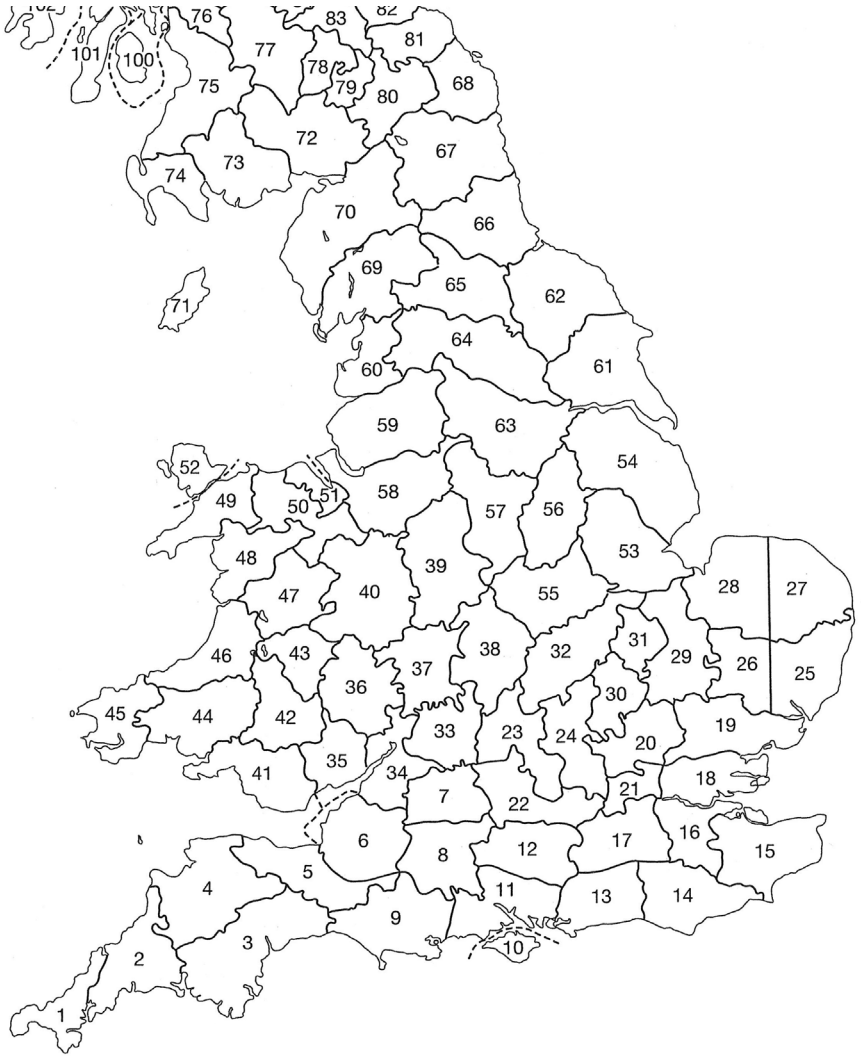


Fig. 1. Vice-counties of southern Britain.

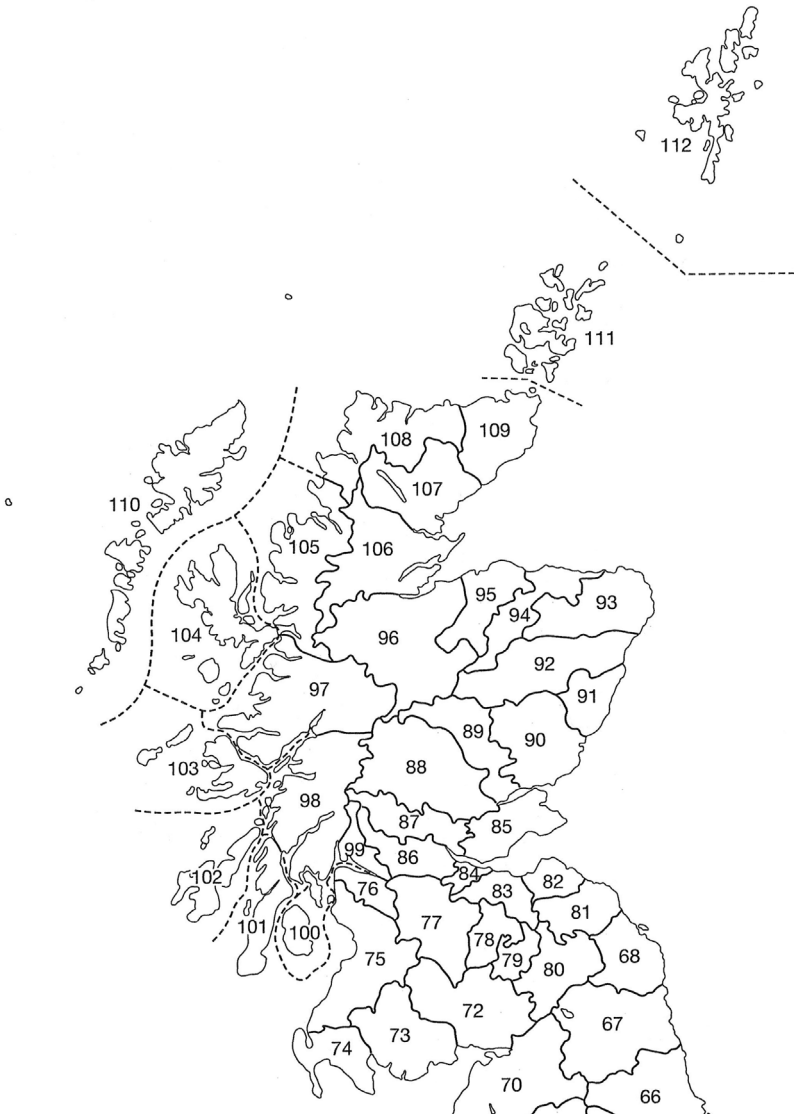


Fig. 2. Vice-counties of northern Britain.

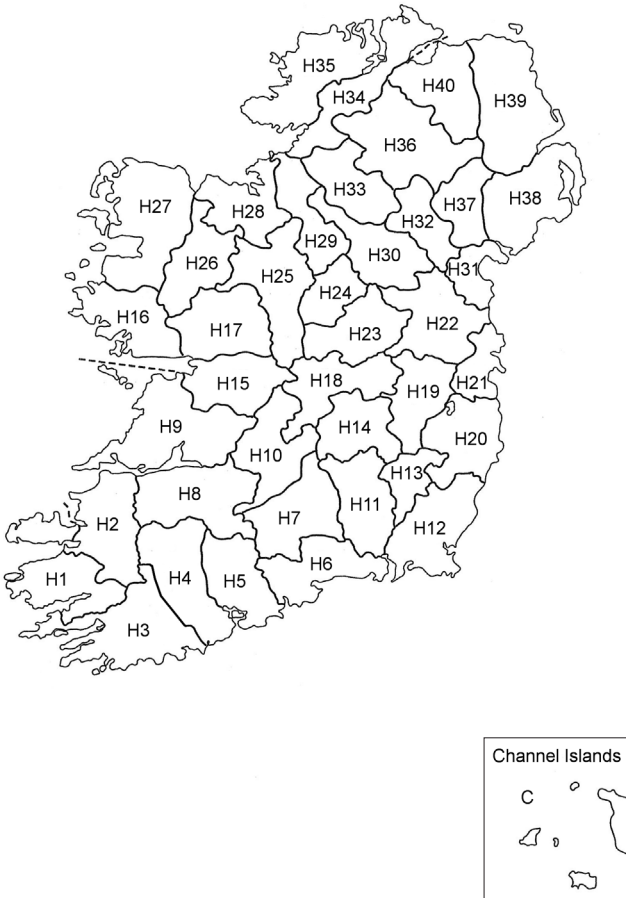


Fig. 3. Vice-counties of Ireland, with the Channel Islands.

The Census Catalogue

The taxa whose distributions are listed below are those whose occurrence in Britain or Ireland is well authenticated. The new British and Irish Checklist (Blockeel *et al.*, 2021) provides explanatory annotations for taxa that have been deleted, added or reinstated since the Census Catalogue of Hill *et al.* (2008). They are not repeated here, therefore, but a few supplementary annotations are included to explain the data sources for reinstated taxa.

The effective date of the Catalogue is 31 December 2020. New records made or submitted to the Recorders after that date are not included.

Arrangement and supra-generic taxonomy

The systematic arrangement of families and genera follows the classification used in the latest British and Irish Checklist (Blockeel *et al.*, 2021), and is substantially based on relationships found by DNA sequencing. There are, and continue to be, substantial changes from earlier classifications, but ultimately DNA sequences will lead to greater stability. This happy state of affairs, however, has not yet been reached.

The overview given here is limited to orders, families and genera. A fuller synopsis with some explanatory notes can be found in Blockeel *et al.* (2021). For those unfamiliar with higher taxa, it may be useful to explain the endings. At the top level, there are three phyla, the hornworts, liverworts and mosses. Each of these has a scientific name ending in 'phyta'. Below phyla come classes, which end in 'opsida' (not listed here), orders, ending in 'ales', and families, ending in 'aceae'.

HORNWORTS

(Anthocerotophyta)

Anthocerotales

Anthocerotaceae

1. Anthoceros

Notothyladales

Notothyladaceae

2. Phaeoceros

LIVERWORTS

(Marchantiophyta)

Calobryales

Haplomitriaceae

1. Haplomitrium

Blasiales

Blasiaceae

2. Blasia

Sphaerocarpaceae

Sphaerocarpaceae

3. Sphaerocarpos

Lunulariales

Lunulariaceae

4. Lunularia

Marchantiales

Marchantiaceae

5. Marchantia

Aytoniaceae

6. Reboulia

Cleveaceae

7. Clevea

Targioniaceae

8. Targionia

Conocephalaceae

9. Conocephalum

Ricciaceae

10. Riccia

11. Ricciocarpos

Dumortieraceae

12. Dumortiera

Pelliales

Pelliaceae

13. Pellia

Fossombroniales

Fossombroniaceae

14. Fossombronia

Petalophyllaceae

15. Petalophyllum

Pallaviciniales

Moerckiaceae

16. Moerckia

Pallaviciniaceae

17. Pallavicinia

Pleuroziales

Pleuroziaceae

18. Pleurozia

Metzgeriales

Metzgeriaceae

19. Metzgeria

Aneuraceae

20. Aneura

21. Riccardia

Porellales

Porellaceae

22. Porella

Radulaceae

23. Radula

Frullaniaceae

24. Frullania

Jubulaceae

25. Jubula

Lejeuneaceae

26. Cololejeunea

27. Myriocoleopsis

28. Colura

29. Drepanolejeunea

30. Harpalejeunea	54. Calypogeia
31. Lejeunea	Hygrobiiellaceae
32. Marchesinia	55. Hygrobiiella
33. Microlejeunea	Antheliaceae
Ptilidiales	56. Anthelia
Ptilidiaceae	Jungermanniaceae
34. Ptilidium	57. Mesoptychia
Jungermanniales	58. Liochlaena
Blepharostomataceae	59. Eremonotus
35. Blepharostoma	60. Jungermannia
Mastigophoraceae	Harpanthaceae
36. Mastigophora	61. Harpanthus
Herbertaceae	Saccogynaceae
37. Herbertus	62. Saccogyna
Lepidoziaceae	Endogemmaceae
38. Bazzania	63. Endogemma
39. Kurzia	Solenostomataceae
40. Lepidozia	64. Solenostoma
41. Telaranea	Gymnomitriaceae
42. Tricholepidozia	65. Nardia
Trichocoleaceae	66. Gymnomitron
43. Trichocolea	67. Marsupella
Lophocoleaceae	Adelanthaceae
44. Lophocolea	68. Adelanthus
45. Chiloscypus	69. Syzygiella
46. Heteroscypus	70. Pseudomarsupidium
47. Leptoscyphus	Cephaloziaceae
Plagiochilaceae	71. Cephalozia
48. Plagiochila	72. Odontoschisma
49. Pedinophyllum	Anastrophyllaceae
Acrobolbaceae	73. Anastrophyllum
50. Acrobolbus	74. Sphenolobus
Geocalycaceae	75. Gymnocolea
51. Geocalyx	76. Orthocaulis
Southbyaceae	77. Anastrepta
52. Gongylanthus	78. Tetralophozia
53. Southbya	79. Sphenolobopsis
Calypogeiaceae	80. Biantheridion

- 81. Barbilophozia
- 82. Isopaches
- Cephaloziellaceae
- 83. Cephaloziella
- 84. Protolophozia
- 85. Oleolophozia
- 86. Obtusifolium
- Scapaniaceae
- 87. Lophozia
- 88. Heterogemma
- 89. Tritomaria
- 90. Schistochilopsis
- 91. Saccobasis
- 92. Diplophyllum
- 93. Douinia
- 94. Scapania
- Myliaceae
- 95. Mylia

- MOSSES (Bryophyta)**
- Sphagnales
 - Sphagnaceae
 - 1. Sphagnum
- Andreaeales
 - Andreaeaceae
 - 2. Andreaea
- Oedipodiales
 - Oedipodiaceae
 - 3. Oedipodium
- Tetraphidales
 - Tetraphidaceae
 - 4. Tetraphis
 - 5. Tetrodontium
- Polytrichales
 - Polytrichaceae
 - 6. Atrichum
 - 7. Oligotrichum
- 8. Polytrichastrum
- 9. Pogonatum
- 10. Polytrichum
- Buxbaumiales
 - Buxbaumiaceae
 - 11. Buxbaumia
- Diphysciales
 - Diphysciaceae
 - 12. Diphyscium
- Timmiales
 - Timmiaceae
 - 13. Timmia
- Encalyptales
 - Encalyptaceae
 - 14. Encalypta
- Funariales
 - Funariaceae
 - 15. Funaria
 - 16. Entosthodon
 - 17. Physcomitrium
 - Disceliaceae
 - 18. Discelium
- Catospoiales
 - Catosciaceae
 - 19. Catoscopium
- Dicranales
 - Distichiaceae
 - 20. Distichium
 - Flexitrichaceae
 - 21. Flexitrichum
 - Hymenolomataceae
 - 22. Hymenoloma
 - Archidiaceae
 - 23. Archidium
 - Micromitriaceae
 - 24. Micromitrium
 - Leucobryaceae
 - 25. Dicranodontium

- | | |
|--------------------|------------------------|
| 26. Campylopus | 54. Weissia |
| 27. Leucobryum | 55. Trichostomum |
| Amphidiaceae | 56. Pottiopsis |
| 28. Amphidium | 57. Tortella |
| Aongstroemiaceae | 58. Chionoloma |
| 29. Dichodontium | 59. Hymenostylium |
| 30. Aongstroemia | 60. Anoetangium |
| Dicranellaceae | 61. Gyroweisia |
| 31. Dicranella | 62. Gymnostomum |
| Fissidentaceae | 63. Molendoa |
| 32. Fissidens | 64. Leptobarbula |
| Dicranaceae | 65. Ephemerum |
| 33. Dicranoloma | 66. Diallytrichia |
| 34. Dicranum | 67. Pseudocrossidium |
| 35. Paraleucobryum | 68. Bryoerythrophyllum |
| Rhabdoweisiaceae | 69. Leptodontium |
| 36. Rhabdoweisia | 70. Streblotrichum |
| 37. Cynodontium | 71. Barbula |
| 38. Oncophorus | 72. Didymodon |
| 39. Dicranoweisia | 73. Stegonia |
| 40. Arctoa | 74. Crossidium |
| 41. Kiaeria | 75. Pterygoneurum |
| 42. Glyphomitrium | 76. Aloina |
| Schistostegaceae | 77. Tortula |
| 43. Schistostega | 78. Microbryum |
| Bruchiaceae | 79. Henediella |
| 44. Bruchia | 80. Acaulon |
| 45. Trematodon | 81. Chenia |
| Ditrichaceae | 82. Syntrichia |
| 46. Pleuridium | 83. Cinclidotus |
| 47. Pseudephemerum | Grimmiales |
| 48. Trichodon | Saelaniaceae |
| 49. Ditrichum | 84. Saelania |
| 50. Ceratodon | Seligeriaceae |
| 51. Cheilothela | 85. Blindia |
| Pottiaceae | 86. Blindiadelphus |
| 52. Scopelophila | 87. Seligeria |
| 53. Eucladium | Ptychomitriaceae |

- 88. Ptychomitrium
- 89. Campylostelium
- 90. Brachydontium
- Grimmiaceae
- 91. Coscinodon
- 92. Schistidium
- 93. Grimmia
- 94. Racomitrium
- Hedwigiales
- Hedwigiaceae
- 95. Hedwigia
- 96. Braunia
- Splachnales
- Splachnaceae
- 97. Tayloria
- 98. Tetraplodon
- 99. Aplodon
- 100. Splachnum
- Meesiaceae
- 101. Paludella
- 102. Meesia
- 103. Amblyodon
- 104. Leptobryum
- Bartramiaceae
- 105. Plagiopus
- 106. Bartramia
- 107. Conostomum
- 108. Philonotis
- 109. Breutelia
- Bryales
- Bryaceae
- 110. Bryum
- 111. Rhodobryum
- Mniaceae
- 112. Mielichhoferia
- 113. Pohlia
- 114. Epipterygium
- 115. Mnium
- 116. Cinclidium
- 117. Rhizomnium
- 118. Plagiomnium
- 119. Pseudobryum
- Orthotrichales
- Orthotrichaceae
- 120. Zygodon
- 121. Codonoblepharon
- 122. Orthotrichum
- 123. Lewinskya
- 124. Plenogemma
- 125. Pulvigera
- 126. Ulota
- 127. Nyholmiella
- Orthodontiales
- Orthodontiaceae
- 128. Orthodontium
- 129. Leptotheca
- Rhizogoniales
- Rhizogoniaceae
- 130. Calomnion
- Aulacomniales
- Aulacomniaceae
- 131. Aulacomnium
- Hookeriales
- Daltoniaceae
- 132. Achrophyllum
- 133. Calypstrochaeta
- 134. Daltonia
- Hookeriaceae
- 135. Hookeria
- Pilotrichaceae
- 136. Cyclodictyon
- Hypnales
- Fontinalaceae
- 137. Fontinalis
- Plagiotheciaceae

138. Myurella	Scorpidiaceae
139. Platydictya	170. Sanionia
140. Orthothecium	171. Hygrohypnella
141. Plagiothecium	172. Hamatocaulis
142. Isopterygiopsis	173. Scorpidium
143. Pseudotaxiphyllum	Leskeaceae
144. Herzogiella	174. Leskea
Pterigynandraceae	Pseudoleskeaceae
145. Pterigynandrum	175. Lescurea
Habrodontaceae	Pseudoleskeellaceae
146. Habrodon	176. Pseudoleskeella
Climaciaceae	Thuidiaceae
147. Climacium	177. Abietinella
Myriniaceae	178. Thuidium
148. Myrinia	179. Helodium
Amblystegiaceae	Brachytheciaceae
149. Kandaea	180. Pseudoscleropodium
150. Cratoneuron	181. Scorpiurium
151. Palustriella	182. Plasteurhynchium
152. Campylium	183. Eurhynchium
153. Amblystegium	184. Rhynchostegium
154. Hygroamblystegium	185. Rhynchostegiella
155. Leptodictyum	186. Cirriphyllum
156. Conardia	187. Microeurhynchium
157. Drepanocladus	188. Oxyrrhynchium
158. Tomentypnum	189. Kindbergia
159. Hygrohypnum	190. Sciuro-hypnum
160. Platyhypnum	191. Brachythecium
161. Serpoleskea	192. Scleropodium
162. Campylophyllopsis	193. Eurhynchiastrum
163. Campylophyllum	194. Brachytheciastrum
164. Pseudocampylium	195. Homalothecium
165. Microhypnum	Hypnaceae
Calliergonaceae	196. Hypnum
166. Warnstorfia	Taxiphyllaceae
167. Sarmentypnum	197. Taxiphyllum
168. Straminergon	Pylaisiadelphaceae
169. Calliergon	198. Platygyrium

Stereodontaceae	Cryphaeaceae
199. Stereodon	218. Cryphaea
Pylaisiaceae	219. Dendrocryphaea
200. Pseudohygrohypnum	Leucodontaceae
201. Calliergonella	220. Nogopterium
202. Pylaisia	221. Leucodon
203. Homomallium	Antitrichiaceae
204. Roaldia	222. Antitrichia
205. Buckia	Neckeraceae
206. Pseudostereodon	223. Neckera
207. Ptilium	224. Homalia
Sematophyllaceae	225. Thamnobryum
208. Sematophyllum	226. Pseudanomodon
Hylocomiaceae	Heterocladiellaceae
209. Pleurozium	227. Heterocladiella
210. Rhytidiadelphus	Lembophyllaceae
211. Hylocomiadelphus	228. Heterocladium
212. Loeskeobryum	229. Isothecium
213. Hylocomiastrum	Myuriaceae
214. Hylocomium	230. Ctenidium
215. Hageniella	231. Hyocomium
Rhytidiaceae	232. Myurium
216. Rhytidium	Anomodontaceae
Entodontaceae	233. Anomodon
217. Entodon	

Nomenclature

Nomenclature and author abbreviations for taxa below the level of family follow the latest British and Irish Checklist (Blockeel *et al.*, 2021), with one small amendment. In this checklist the author citation ‘Sw. ex anon.’ is used for four taxa that were described by Olof Swartz in 1799 and validated in a subsequent, anonymous review of Swartz’s book. Brad Scott (pers. comm. and <https://sussexbryophytes.wordpress.com/2021/08/29/unpicking-botanical-author-citations-the-case-of-sw-ex-anon/>) has recently found convincing evidence that Dawson Turner was the author of this anonymous review, which was published in the *Monthly Review* 34: 535–538 (1801). Accordingly we have used

the citation 'Sw. ex Turner' for the relevant taxa (*Dicranum polysetum*, *Bryum pallens*, *Orthotrichum pumilum* and *Scorpidium revolvens*). We have also applied this citation to *Fissidens viridulus*, whose basionym was similarly described by Swartz. In the European list of Hodgetts *et al.* (2020) its authorship was cited simply as (Sw.) Wahlenb. and this was followed in the British and Irish Checklist.

Synonyms are included for names that differ from those used in Hill *et al.* (2008).

Infraspecific taxa and aggregates

For species with infraspecific taxa, entries are normally maintained only at the level of each variety or subspecies, and not at species level. Exceptions are made in a few cases where the infraspecific taxa have only recently been recognised or reinstated (e.g. *Blepharostoma trichophyllum* and *Lophozia ventricosa*). A similar approach is taken with aggregate taxa. However, the distributions of a few species-level and aggregate taxa that are no longer maintained on the Census Catalogue database are documented in footnotes for information.

Symbols and conventions

Records in round brackets signify vice-counties from which a species has not been seen since the beginning of 1970. For example *Pseudanomodon attenuatus* has the distribution 70, (88), 90, signifying that it has only ever been found in vice-counties 70, 88 and 90, with post-1969 records for vice-counties 70 and 90, and no recent verified record from 88. The application of brackets is based on data held in the British Bryological Society's main database at the Biological Records Centre (BRC). Where a vice-county is bracketed, this may be either because there is no record in BRC made after 1969, or because any records in BRC are poorly dated, or because the vice-county was bracketed in Hill *et al.* (2008) and no voucher has subsequently been sent to the appropriate Recorder. For a vice-county to be listed without brackets, it must either have been listed without brackets by Hill *et al.* (2008) and have a post-1969 record in the BRC database or have been sent in as a voucher after 2008.

Irish vice-counties are signified by the prefix 'H', from Hibernia, the Latin name for Ireland. Thus the distribution of *Lejeunea hibernica* is H1–3, 16, 27, indicating that it has been found only in Ireland, in vice-counties 1, 2, 3, 16 and 27. The abbreviation 'C' is used for the Channel Islands.

An obelisk (or dagger) symbol † is used to denote persisting introductions, i.e. records of introduced species that have been present in a vice-county for at least 10 years but which have not spread to the surrounding environment from the substrate or plant on which they were introduced (Blockeel 2010). Such occurrences are typically those imported with tree ferns, and those transported to new localities (usually parks and gardens) on rocks and boulders. This symbol is used only when all the records in a vice-county are of this nature.

Numbers in square brackets after the name of a taxon refer to the annotations on page 136.

HORNWORTS (Anthocerotophyta)

1 Anthoceros L.

1 punctatus L.

1–6, (8), 9–11, 13, 14, (16), 17, 22, 25, 30, (34), 35, (38), 41, 43–49, 52, 54, 59, 61, (67, 70, 71), 72–76, 80, 81, 85, 86, (87), 90, 91, 93–100, (101), 102, (103), 104, 105, (106), 107, 109–111. H1–4, (5), 6–9, 12, 13, 16, 20, 27–29, 31, 32, 34, 35, (38), 40. C.

2 agrestis Paton

1, 2, 4, 5, 8–10, (11), 12–14, (16), 17, (18, 19), 22, 23, (24), 26–28, (30, 32, 34), 35, 36, (37, 38), 39–41, 44, 46, 47, (48), 50–52, 54, 55, (56), 57–59, 63, (65, 68), 69, 72–77, 79–81, 83, 86, 88, 89, (90), 91, 98. H31, (35, 36), 38.

2 Phaeoceros Prosk.

1 laevis (L.) Prosk.

1–6, (8), 9, 10, 13, 14, (18), 35, (36, 43), 44–47, 49, 52, 58, 59, (64), 70, 72, (73), 74, 75, 77, 81, 83, 88, (90), 98, (100), 101, 102, 104, (107), 110. H1–6, (8), 11, 13, (14), 16, 19–24, 26, 27, 29, 31, 32, 34–38, 40. C.

2 carolinianus (Michx.) Prosk.

2, (13), 17, (18, 24), 35, 38, 40, 41, 44–46, 69, 72, 80, 81, (86, 87), 89, (99, 103).

LIVERWORTS (Marchantiophyta)

1 Haplomitrium Nees

1 hookeri (Lyell ex Sm.) Nees

(1, 3, 11, 13), 42, 44, 45, 48, 49, 59, (61, 66), 68–70, (71), 74, 77–79, 83, 87–90, 92–98, 101, 103–110, 112. H1, 2, (3), 16, 20, (21), 27, 28, (30), 34, 35, 39.

2 Blasia L.

1 pusilla L.

1–4, (5–7), 8–14, (15, 16), 17–19, (20, 21), 22, (23, 25), 27, 28, (32, 33), 34–53, (54, 55), 56, 57, (58), 59–65, 67–112. H1, (2), 3–5, (6, 7), 8–10, (12), 16, 18, (19), 20, 21, 26–30, (31, 32), 33–36, (37, 38), 39, 40.

- 3 **Sphaerocarpos** Boehm.
- 1 **michelii** Bellardi
1, 3, (5), 6, 9–11, 14–22, (23, 24), 25–30, (32, 34, 36), 37, 54, 55,
(61, 62). C.
- 2 **europaeus** Lorb. [*Sphaerocarpos texanus*]
1, (9), 11–14, (16), 17, 19, 24–27, (34), 36, 37. C.
- 4 **Lunularia** Adans.
- 1 **cruciata** (L.) Dumort. ex Lindb.
1–98, (99), 100–112. H1–13, (14), 15–40. C.
- 5 **Marchantia** L.
- 1 **polymorpha** L.
a subsp. **polymorpha**
1–5, (6), 7, (11, 12), 13, 14, 16–19, (20, 22–24), 25–32, 34, 35,
(36, 38, 39), 40–45, 47, 49–53, 56, 57, (58), 59–70, 72, 73, (74),
75–86, (87, 88), 89, 90, 92–95, (96), 98, (99), 100, 101, (104),
105–110, (111), 112. H1–6, (7), 8, 9, (10, 11, 13), 14–16, (18),
19, 20, (21), 22, 23, 25–30, 32–36, (37, 38), 39, (40).
b subsp. **ruderalis** Bischl. & Boissel.-Dub.
1–21, (22), 23–47, (48), 49, 51–83, 85–96, (97), 98, 101, 102, (103),
104–107, (108), 109–111. H1, 2, 4–12, 15–28, (29), 30–40. C.
c subsp. **montivagans** Bischl. & Boissel.-Dub.
35, 42, (52), 62, 64–66, 68–70, 72, 77–83, (85), 88, (89), 90,
(91), 92–97, (98), 105, (106), 107, 108, 112. H(28), 29.
- 2 **quadrata** Scop. [*Preissia quadrata*]
(3), 4, 6, 11, 17†, 22, (26–29, 31, 32), 35, 36, 39–42, (43), 44–50,
52, (54, 55), 57–70, 72, 73, (74), 75–92, (93), 94–112. H1–3, 5,
(6), 7–9, (14), 15, 16, (17), 18, (19), 20, (21), 22–29, 31, 33–36,
38–40.
- 6 **Reboulia** Raddi
- 1 **hemisphaerica** (L.) Raddi
1–3, (4), 5, 6, (7), 8–17, 20, (22), 26–28, 30, (33), 34–37, (38),
39–52, (55), 57, (58, 59), 60, (61, 62), 64, 65, (66, 67), 68, 69,
72, 73, (74), 75, (76, 77), 80–84, (85, 86), 87–89, (90), 92–94,
96–105, (106), 108, (109), 110, 112. H1, (2), 4, 5, 7–9, (11), 16,
(17, 21), 23, 25–29, (33), 35, (38–40). C.
- 7 **Clevea** Lindb.
- 1 **hyalina** (Sommerf.) Lindb. [*Athalamia hyalina*]
92.

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- 8 **Targionia** L.
- 1 **hypophylla** L.
2–5, (6), 12, 13, 17, (26), 36, (37), 39, 40, 42–45, 47–49, 52, 57, (70), 80, (85), 87, (88, 90), 98, (99), 101, 104, 107. H(1, 2, 4, 39). C.
- 9 **Conocephalum** Hill
- 1 **conicum** (L.) Dumort.¹
1–5, 7, 9, 11, 13–17, 19, 20, 23–52, 55–83, 85–88, 90–95, 97, 98, 100–110, 112. H1–7, 9–12, 15–17, 19–21, 27–29, 31, 33, 34, 36–40. C.
- 2 **salebrosum** Szweyk., Buczk. & Odrzyk.
4, 23, 27, 28, 32–53, 56–59, 62–65, 67–70, 72–77, 79–83, 85–96, 98–100, 103–112. H1, 7–11, 16, 18–21, 28, 29, 33–36, 38, 39.
- 10 **Riccia** L.
- 1 **cavernosa** Hoffm.
1, 4–6, 8, 9, 11, 13–15, 17, 18, 20–23, (24), 25–29, (30), 32, (33), 34–36, 38–40, (41), 42, 44–46, 48, (49), 52–55, (56), 57–59, 61, 63–65, 67, 71–73, 79, 83, 85, 88–90, 93, 95, (101), 102, 103, 110, 111. H1, 3, 4, 9, 15, 17, 25, 27, 30, 35, (38), 39. C.
- 2 **crystallina** L.
1–3, 9, 11, (76).
- 3 **huebeneriana** Lindenb.
2, 3, (9), 13, 14, (17), 41, 42, 44, 46, 47, 49, (52), 57, (58), 59, 63–65, 67, 70, 99, 100. H20.
- 4 **fluitans** L.
3–6, (7), 9–32, (33, 34), 35–40, (41), 42, 44, 45, 47, 49–51, 53–55, (56), 57–61, (62), 63, (64), 66, 69. H5, 7, 8, 10, (13, 19), 20, (21, 23), 25, (29), 31–33, 36, 37, (38, 39), 40.
- 5 **rhenana** Lorb. ex Müll.Frib.
1, (7), 15, (17), 18, (20, 24, 28), 29, 37, 58. H17.
- 6 **canaliculata** Hoffm.
(13), 40, (48), 52, (58), 83, 86–90, 99.
- 7 **sorocarpa** Bisch.
1–29, (30, 31), 32–70, (71), 72–98, (99), 100–108, 110. H(1, 2), 3–5, (6, 8), 9, 10, 12, 13, 15, 16, 19–23, 25–28, 31, 32, (33), 34–40. C.

1 The distribution of *Conocephalum conicum* s.lat., including *C. salebrosum*, is: 1–20, (21), 22–112. H1–3, (4, 5), 6–16, (17), 18–23, (24), 25–31, (32), 33–40. C.

- 8 **nigrella** DC.
1, 2, (37), 43, 48. (C).
- 9 **glauca** L.
1–65, (67), 69, 70, (71), 72–77, 79–82, (83), 84–90, 92–94, 96–98, (99), 100–103, 105–107. H1–7, 9–14, (15), 16, 17, 19–23, 25–28, 31, (33), 34, 35, (37), 38–40. C.
- 10 **subbifurca** Warnst. ex Croz.
1–3, (4, 5), 6–8, 11–14, 16, 17, 20, 22, (24), 28, 29, 34–37, 40–47, (48), 49, 50, 52, (56), 57, 58, 61, 63, 64, 69, 70, 73, (74), 81–83, (88), 93, 96–98, (99, 100), 101–105, (106), 108. H(1, 2), 3, (4–6), 9, 12, (14), 16, 20–23, 27, 28, (33), 34, 35, (36, 37), 38–40. C.
- 11 **crozalsii** Levier
1, 2, (3, 14, 35), 45, 48, 49, 52. H3. C.
- 12 **bifurca** Hoffm.
1.
- 13 **beyrichiana** Hampe ex Lehm.
1, 2, (26), 41–45, (46), 48, 49, 52, 54, (59), 60, 64, (65), 69, 73–75, (76, 82), 83, 84, (85, 86), 88, (90), 98, (99, 100), 101–104, 110. H(1), 3, 9, 15, 16, (20), 26, 27, 30, 34, 35, (37), 38–40. C.
- 11 **Ricciocarpos** Corda
1 **natans** (L.) Corda
6, 9, 12, 13, (14), 15, (16), 18–20, (21, 22, 24), 25–29, 31, 32, 35, 36, (38), 39, 40, 50, 53–55, (58), 61–64, (65), 66. H7–9, (15), 19, (20, 21), 22–24, (25), 30, (31).
- 12 **Dumortiera** Nees
1 **hirsuta** (Sw.) Nees
1, 2, (3), 4, 14, 71, 98, 102. H1–4, 6–11, 20, 29, (39).
- 13 **Pellia** Raddi
1 **epiphylla** (L.) Corda
1–30, 32–112. H1–40. C.
2 **neesiana** (Gottsche) Limpr.
1–9, 11–18, 21, 22, 24–29, 31–36, (37), 38–54, 57–70, (71), 72–83, 87–112. H1–4, 6–13, 15, 16, 18, 20, 21, 23, (24), 25–36, (37, 38), 39, 40. C.
3 **endiviifolia** (Dicks.) Dumort.
1–112, H1–40. C.

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- 14 **Fossombronina** Raddi
- 1 **foveolata** Lindb.
1, (2), 3, 8, (9), 11, (12), 13, 14, 17, (22), 25, 27, 28, 37, 40, 43–46, 48, 49, 52, 54, (58, 59), 61, (62), 64, 69, 70, (74), 75, 86, (87), 88, 92, 95–97, (98, 99), 101–105, (106), 108–110, 112. H1–3, (9), 16, 20, 26, 27, 35, (37, 39).
 - 2 **angulosa** (Dicks.) Raddi
1–3, 45, (48), 49, 110. H1–3, 9, 16, 27, (34), 35. C.
 - 3 **caespitififormis** (Raddi) De Not. ex Rabenh. s.str. [2]
1–3, (4), 6, (7, 8, 13, 14), 17, (23, 34), 35–37, (39), 40, 45, (58, 69).
 - 4 **husnotii** Corb. [2]
1–3, (7), 9, 13, (35), 41, 42, (44), 45, 46, 49, (60). H1, 3, 5, 9, 16, 27, 34. C.
 - 5 **pusilla** (L.) Nees
1–67, (68), 69–94, 96–98, (99), 100–107, 109, 111. H1–13, 16, 19–22, (23), 24–29, 31–36, (37), 38–40. C.
 - 6 **maritima** (Paton) Paton
1, 2, 4, 11, 45, 49, 52. H3, 27. C.
 - 7 **wondraczekii** (Corda) Dumort. ex Lindb.
1–20, 22, (23), 24, 25, 27–29, (30), 31, 32, 34–52, 55–88, (89), 90, 92–94, (96), 97–99, 101–107, 109, 112. H1, 3, 4, (5, 6), 7, 9, 10, 12, (13, 15), 16, 20, 21, (24, 25), 26–29, 31–33, (34), 35, (37), 38. (C).
 - 8 **mittenii** Tind.
(4), 7, (22).
 - 9 **incurva** Lindb.
1–3, 9–14, 16, 17, 19, 22, 25, 27, 28, 35, 37, 40–42, 44–46, 48, 49, 53–59, (62), 63, 64, 69, 70, 72, 74–78, 80, 83, 87–89, (90), 93–98, 101–105, (106, 107), 110, 112. H1, 3, (6), 16, 27, 28, (30), 34–36, 38–40. C.
 - 10 **fimbriata** Paton
42, 44, 45, 49, 52, 57, 68, 72, 78, 79, 88, 96, (97, 98), 101, 104, 106. H27, 28.
- 15 **Petalophyllum** Nees & Gottsche ex Lehm.
- 1 **ralfsii** (Wilson) Nees & Gottsche ex Lehm.
1, 3, 4, (6), 28, 41, 44–46, 48, (49), 51, 52, 59, (62), 68, 105, 110. H1, (2), 3, 9, 16, 21, 27, 28, 35, (39), 40.

- 16 **Moerckia** Gottsche
- 1 **hibernica** (Hook.) Gottsche
88, (90), 92, 95, 96, 105, 106, 108, 112. H1, 2, (20), 27, (34).
 - 2 **flotoviana** (Nees) Schiffn.
(1), 4, 26–28, 41, 42, 44, (45), 46, 48, 49, (50), 52, 58, 59, 62–64, (65), 66–70, 72, 78–80, (82), 83, (85), 88–90, (91), 92, 94–98, 103, 105, (106), 108, 110–112. H1, 9, (14), 16, (17), 18, (21), 23, 26–29, (33), 34, 35, (38–40).
 - 3 **blyttii** (Mørch) Brockm.
87–90, 92, 94, 96–98, 105–108.
- 17 **Pallavicinia** Gray
- 1 **lyellii** (Hook.) Gray
6, (10), 11, (13), 14–17, (18), 22, 25, 27, 42, 44–46, 48, 49, (59), 62, 64, 65), 69, 70, 74, 76. H(1), 2, 3, 8, (11), 17, (19), 20, (27).
- 18 **Pleurozia** Dumort.
- 1 **purpurea** Lindb.
73–75, 86–88, (89), 92, 96–98, (99), 100–112. H1–3, 9, 10, 16–18, (20, 21), 23–30, 33–36, (38), 39, 40.
- 19 **Metzgeria** Raddi
- 1 **violacea** (Ach.) Dumort.
1–91, 93–104, 106–112. H1–40. C.
 - 2 **consanguinea** Schiffn.
1–26, 29, 31–52, 55, 57–61, 63–65, 67–73, (74), 75–77, 79–81, 83, 86–88, 97–102, 104. H1, 3–18, 20, 22, 24–36, 38–40. C.
 - 3 **furcata** (L.) Corda
1–112, H1–40. C.
 - 4 **conjugata** Lindb.
1–6, (13), 14, (33), 34–37, 39, 40, (41), 42–50, 52, 57, 60, (62), 63–65, 67–76, (77), 78–83, (85), 86–90, 92, 95–106, 108, (109), 110, (111). H1–4, 6–11, (12, 13), 16, (17, 18), 20, (21), 22, 27–30, 33–40.
 - 5 **leptoneura** Spruce
44, 46, 48, 49, 69, 70, 72, (73), 75, (76, 86), 87, (88), 97–108, (110, 111). H1–3, 6, 7, (16), 27, 28, (29, 35), 39.
 - 6 **pubescens** (Schrank) Raddi
34–36, 39, 40, 47, (48), 50, 51, 56, 57, 60, 62–70, (72), 73, 78–83, (85), 86–90, (91), 92, (93), 94–99, 101, 104–108, (109). H39, 40.

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- 20 **Aneura** Dumort.
- 1 **pinguis** (L.) Dumort.
1–112, H1–40. C.
 - 2 **mirabilis** (Malmb.) Wickett & Goffinet
(2), 3, 4, (6), 8, 9, 11–14, (15, 16), 17, 22, (24), 25, 27, 28, 30,
38, 40, 41, 43–48, (49), 50, 69, 75, 79, 81, 83, (86), 87, (89, 92),
94–101, 105, 106, 108. H1, 2, 16, 20, 35.
- 21 **Riccardia** Gray
- 1 **multifida** (L.) Gray
1–5, (6, 8), 9–17, 22, (25), 26–29, (30), 34, 35, (36), 37, 39–52,
56–60, (61), 62–83, 85–90, (91), 92–112. H1–9, (10), 11–13,
15, 16, (17), 18–21, 23–40. C.
 - 2 **chamedryfolia** (With.) Grolle
1–86, 88–112. H1–40. C.
 - 3 **incurvata** Lindb.
1, 2, 9, 11, (13, 14), 17, 26, 28, 32, 35, 41, 42, 44–49, 52–54, 56,
58–60, (63, 65), 66, 69, (70, 71), 73–75, 78–80, (81), 82–86,
88–90, 92, 94–98, 101, 102, 104, 105, (106, 107), 108, 110, 112.
H1, 5, (9), 16, 20, 27, 29, 34–36, 38, 40.
 - 4 **palmata** (Hedw.) Carruth.
2–6, 9, 11, 13, 17, 24, 33–35, 37, 39–51, 57–59, 62–92, 94–112.
H1–6, (7), 9, 11, 12, 14–18, 20, 23–30, 33–35, (36), 38–40.
 - 5 **latifrons** (Lindb.) Lindb.
1–13, 17, 22, 24, (26), 27, 28, 31, (35), 40–52, 58, (67), 69, 70,
72–75, 77–81, 83, 88, (90, 91), 92–98, 101–110, 112. H1–4,
(6, 7), 8, 9, (10), 11–13, (14), 15–20, (21, 22), 23, (24), 25–31,
33, (34), 35, 36, (37), 38, (39), 40. (C).
- 22 **Porella** L.
- 1 **platyphylla** (L.) Pfeiff.
1–20, (21), 22–60, 62–70, (71), 72, 73, 75, (76), 77–83, 85–90,
(91, 92), 93–95, 97, 98, (99), 100–102, 104, 106, 108, 112. H1,
2, 4–15, (16), 17–20, (21), 22–26, 28–30, (31, 32), 33, (36, 37),
38–40. C.
 - 2 **cordaeana** (Huebener) Moore
(2), 3–5, 7, 11, (13), 16, 17, 36, 37, 39, 40, 42–44, (45), 47–52,
55, 57, 60, 64–70, (71), 72, 73, 75–99, 104–108, (109), 110, 112.
H1, (5), 6, 7, 9, (13), 15, 20, 22, 23, (28), 29, (31–33, 36), 37, 38,
(39), 40.

- 3 **arboris-vitae** (With.) Grolle
1–6, 9–13, (14), 16, 17, 22, 23, (24, 33), 34–37, 39–50, 52, 57, 60, 62, 64–66, (67), 69, 70, 72, 73, (74), 75, 77–80, 82, 83, 85–90, 96–105, 108, 112. H1–3, (5), 6, (7), 8, 9, 16, 20, 23, (26), 27–29, (30), 33, (34), 35, 39, 40. (C).
 - 4 **obtusata** (Taylor) Trevis.
1–4, (5), 6, 9, 10, 15, 33, (34), 41, 42, 45, 46, 48–50, 52, 69, (72), 73–75, 81, 82, 85, (86), 87, (88, 89), 90, 91, (96), 97–105, 107, 108, 110–112. H1–4, (5), 6–8, 16, (18), 20, 27, 28, 34, 35, 38, 39. C.
 - 5 **pinnata** L.
1–5, (36), 42–50, (69). H1–6, 8, (9), 10, 12, 13, 15, 20, 28, 30, 32, (37), 38.
- 23 **Radula** Dumort.
- 1 **complanata** (L.) Dumort.
1–83, (84), 85–112. H1–40. C.
 - 2 **lindenberghiana** Gottsche ex C.Hartm.
1–3, 45, 49, 52, 64, 65, 68–70, 72, (73, 75–77), 78, 85, (86), 87–90, 92, 95–98, (99, 100), 101–106, 108–111. H1–3, 6, 8, 16, 27, (28, 29), 39. C.
 - 3 **voluta** Taylor ex Gottsche, Lindenb. & Nees
48, 49, 70, 73, (75), 86, 97, 98, 101–105. H1–3, 6, 7, 16, 27, (28), 35.
 - 4 **holtii** Spruce
97, 105. H1–3, 27.
 - 5 **aquilegia** (Hook.f. & Taylor) Gottsche, Lindenb. & Nees
46, 48, 49, 69, 70, 73, 86, 87, 96–98, (99, 100), 101–108, 110, 112. H1–3, 6, 7, 16, 27, 28, (29), 34, 35.
 - 6 **carringtonii** J.B.Jack
97, 101, 103, 104. H1–3, 27.
- 24 **Frullania** Raddi
- 1 **tamarisci** (L.) Dumort.
1–19, (20), 22–25, (26), 28, 29, 31–52, 54, (55, 56), 57–60, 62–83, (84), 85–112. H1–40. C.
 - 2 **teneriffae** (F.Weber) Nees
1–4, 45, 46, 48, 49, 52, 58, (64), 69–75, 85, 88, 97, 98, (99), 100–105, 108, 110–112. H1–9, 12, 15, 16, (17–19), 20–22, 25, (26), 27–29, (30), 31, 33–36, 38–40. C.

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- 3 **microphylla** (Gottsche) Pearson
 a var. **microphylla**
 1–5, 41, 44–46, 48, 49, 52, 64, (69, 70), 71, 73–75, (86), 97–105, 108, 110, (111). H1, (2), 3, 6, 7, 12, 16, 27, (28, 29), 33–35, 39, 40.
 b var. **deciduifolia** Grolle
 42, 49, 100.
- 4 **fragilifolia** (Taylor) Gottsche, Lindenb. & Nees
 1–4, 7–9, 11, 14, (34), 35, 36, 40, 42–50, 52, 60, 64, 65, (66), 67–75, 78–83, (85), 86–90, (91), 92–108, (109), 110–112. H1–3, 6–9, 15, 16, 19–21, 27–30, 33–35, (36), 38–40. C.
- 5 **dilatata** (L.) Dumort.
 1–112, H1–40. C.
- 25 **Jubula** Dumort.
 1 **hutchinsiae** (Hook.) Dumort.
 1–5, 34, 35, 41–50, 63, 64, 69–76, 86, 97, 98, 100–105, (110). H1–4, 6, 8–11, 16, 20, 27, (28, 29, 34), 35, 36, 38, 39.
- 26 **Cololejeunea** (Spruce) Steph.
 1 **microscopica** (Taylor) Schiffn. [*Aphanolejeunea microscopica*]
 41, 42, 44, 46, 48–50, 64, 65, 69, 70, (72), 73–75, (86), 87, 88, 96–108, 110. H1–4, 6–10, 15, 16, 20, 26–29, 33–35, (36), 39, (40).
 2 **calcarea** (Lib.) Steph.
 34, 35, (36), 41, 42, 44, 46–50, 57, (59), 60, 63–70, 72, 73, 75, 76, 78, 80, 82, 83, 86–92, 94, 96–109, 111. H1, 2, 7–10, (15), 16, 27–30, (31), 33, (34), 35, 36, (38), 39, 40.
 3 **rossettiana** (C.Massal.) Schiffn.
 3, (5), 6, 8–10, 34–37, 39–41, 43–45, 50, 52, 56, 57, 59, 60, 63–66, (67), 69, (70, 72, 75), 80, 81, (91, 98), 99. H2, 4–6, 8, 9, 12, 14–16, (21, 22), 28, 29, 33, 34, (36).
- 27 **Myriocoleopsis** Schiffn.
 1 **minutissima** (Sm.) R.L.Zhu, Y.Yu & Pócs [*Cololejeunea minutissima*]
 1–38, 40–65, 67, 69–71, 74–76, 97–105, 110. H1–13, 15–30, 32–35, 38–40. C.
- 28 **Colura** (Dumort.) Dumort.
 1 **calyptrifolia** (Hook.) Dumort.
 1–6, 8, 9, 14, 34, 35, 39–50, 52, 57–60, 63–65, 67, 69, 70,

- 72–76, 79, 80, (86), 87, 88, 97–105, 108, 110, 111. H1–17, 20, 21, 24–30, 32–36, 38–40.
- 29 **Drepanolejeunea** (Spruce) Steph.
1 **hamatifolia** (Hook.) Schiffn.
2, 6, 42, 44, 48, 49, 64, (65, 69), 70, 73, 75, 86, 87, 97–105, 108, 110. H1–10, (14), 15–17, 20, (21, 25), 26–29, (31), 33–36, 38, (39), 40.
- 30 **Harpalejeunea** (Spruce) Schiffn.
1 **molleri** (Steph.) Grolle
1, (2, 3), 11, 44–46, 48–50, 64, (65, 69), 70, (72), 73, 75, (86), 87, 97, 98, (99), 100–105, 108, 110. H1–3, 6, 7, 9, 15, 16, 20, 27–29, 33–35, (38), 39, 40.
- 31 **Lejeunea** Lib.
1 **cavifolia** (Ehrh.) Lindb.
1–9, 11–20, (21), 22–26, 29, (30), 31–51, 54, 57–60, 62–70, 72–93, (94), 95–112. H1–8, 10, 11, 13–16, (17), 19, 20, (21), 23, 25–30, 33–40.
2 **lamacerina** (Steph.) Schiffn.
1–6, 8–11, 13, 14, 17, 34–37, 39–52, 55, 57–60, (62), 63–65, 67, 69–82, 84–86, 88, 90, 96–105, 107, 108, 110. H1–13, 15–17, 20, 21, 25, 27–29, 31–36, (37), 38–40. C.
3 **patens** Lindb.
1–4, 35, 41–50, 52, 60, 63–65, (67, 68), 69–80, (83, 85), 86–89, (94), 96–112. H1–12, 15, 16, (17), 20, (21), 25–30, (31), 33–36, (37), 38–40.
4 **flava** (Sw.) Nees
subsp. **moorei** (Lindb.) R.M.Schust.
H1–3, (6, 16), 27.
5 **hibernica** Bischl., H.A.Mill. & Bonner ex Grolle
H1–3, 16, 27.
6 **eckloniana** Lindenb.
102. H1–3, (4), 5, 6, 10, 13, 16.
7 **mandonii** (Steph.) Müll.Frib.
1, 35, 97, 98, 104. H1, (2), 29.
- 32 **Marchesinia** Gray
1 **mackaii** (Hook.) Gray
1–6, 9, 10, 34–36, 39–52, 56, 57, 60, 63–65, 67, 69, 70, (71), 72–75, 86, 97–105, 110. H1–12, 14–17, 20, (21), 22, 23, (26),

- 27–29, 31, 33, (34), 35, (38), 39, 40.
- 33 **Microlejeunea** (Spruce) Steph.
- 1 **ulicina** (Taylor) Steph.
1–25, 30, 31, 33–52, 55–60, (62), 63–65, 67, 69–76, 79, 80, 83, 84, 86–88, 96–105, 108, 110. H1–36, (37), 38–40. C.
- 34 **Ptilidium** Nees
- 1 **ciliare** (L.) Hampe
2–6, 8, 11–13, 15, 17, (19, 21), 22, (24), 25–28, 30, 34–102, (103), 104–112. H1, 2, 6, 8, 12, 20–22, 27, 29, 30, 35, 36, 38–40.
 - 2 **pulcherrimum** (Weber) Vain.
5–7, (8), 9–20, 22–44, 47, 48, (50, 51), 53, 54, (55), 56–64, (65), 66–70, 72, (75), 76–78, 80–83, (84), 85–90, (91), 92–96, 98–101, 105–107, (108). H(31), 39.
- 35 **Blepharostoma** (Dumort.) Dumort.
- 1 **trichophyllum** (L.) Dumort. [1]
1, 3, 4, 14, (16, 23, 33, 34), 35, (36), 37, (39, 40), 41, 42, (43), 44, 46–50, (54), 57, 59, 60, 62, (63), 64–70, (71), 72, 73, (74), 75–83, (85), 86–90, (91), 92, 94–112. H1–3, (6), 16, (20), 27–29, (31, 33), 34, 35, (38), 39, 40.
a subsp. **trichophyllum**
3.
b subsp. **brevirete** (Bryhn & Kaal.) R.M.Schust.
97.
- 36 **Mastigophora** Nees
- 1 **woodsii** (Hook.) Nees
88, 96–98, (99), 103–108, 110, 112. H1, 2, (16), 27.
- 37 **Herbertus** Gray
- 1 **stramineus** (Dumort.) Trevis.
(48), 49, 69, 70, (86), 87–90, 96–98, (99), 103–108, 110–112.
 - 2 **hutchinsiae** (Gottsche & Rabenh.) A.Evans [*Herbertus aduncus*]
48, 49, 69, 70, (73), 75, 86–88, 97–108, 110, 111. H1–3, 6, 7, 16, 27–29, 33–35, 39.
 - 3 **norenius** D.G.Long, D.Bell & H.H.Blom
112.
 - 4 **borealis** Crundw. [*Herbertus delavayi*]
105.

38 **Bazzania** Gray

1 **trilobata** (L.) Gray

1–6, 11, 13, 14, 34, 35, (36), 37, 39–50, 52, 57, 58, (59), 60, 62–70, (71), 72–75, 78–80, (81, 85), 86–90, (91), 92, 94–108, 110–112. H1–3, (5), 6, 9, 12, (13), 16, 20, 21, 25, 27–29, (30), 33, (34, 35, 37, 38), 39, (40). (C).

2 **tricrenata** (Wahlenb.) Lindb.

42, (44), 48, 49, 60, (64), 65, 69, 70, 72, 73, 75, (76), 78, 79, 86–90, 92, 94, 96–112. H1–3, (4), 6, (7), 8, 10, 12, 16, 20, 26–30, 33–35, (36, 39), 40.

3 **pearsonii** Steph.

(92), 94, 96–98, 102, 104–108, 110, 112. H1, 2, 16, 27, 35.

39 **Kurzia** G.Martens

1 **pauciflora** (Dicks.) Grolle

1–5, (6), 8–15, (16), 17, 22, (23–26), 27, 28, (34), 35, (39), 40–46, (47), 48–50, 52, 54, (55, 57), 58–60, (61), 62, (63), 64–70, (71–73), 74, 75, (76), 77, 78, (79), 80, 81, (82), 83, (85, 86), 87–90, (91), 92, 95–112. H1–3, (5), 6, 7, 9, 10, (11), 12, (13), 14–20, (21), 22–31, 33–36, 38–40. (C).

2 **sylvatica** (A.Evans) Grolle

1–5, (9), 11, 13, 14, 16, 17, 28, (37), 39, 41, (42), 44–52, 57, 60, (62), 63, 64, 68–70, 73, 75, 80, 82, 83, 87, 89, (90), 92, 94–99, 103–105, 108, 110, 112. H1, (2, 4), 6, 8, 11, 15, 16, 20, 26–28, (33, 34), 35, 38. (C).

3 **trichocladus** (Müll.Frib.) Grolle

2, 5, 39, 42, 44–50, 57, 58, 60, (62), 63–65, 67, 68, (69), 70, 74–78, 80, 81, 83, 87–90, (91), 92, 94–112. H1–4, 6–17, 19–21, (25), 26, 27, 29, 30, 33–36, 39, 40.

40 **Lepidozia** (Dumort.) Dumort.

1 **reptans** (L.) Dumort.

1–6, (7), 8–112. H1–13, (14), 15–29, (30), 31, 33–40. C.

2 **pearsonii** Spruce

44, 46–49, (50), 57, (59), 60, 63–65, (67), 68–70, (71), 72, 73, (74), 75, (76), 78, 80, 83, 86–88, (90), 92, 94, 96–106, 108, (109), 110–112. H1–3, 7, 16, 20, 27–30, 33, (34), 35, 39.

3 **cupressina** (Sw.) Lindenb.

1–5, 34, 35, 40–48, (49), 50, 52, (58), 60, 63, 64, 67, 68, 70, (71, 75, 86), 92, 96–105, 108, 110–112. H1–3, (5), 6, (8, 12), 16, 20,

- (21), 25–30, 33, (34), 35, 36, 39, (40).
- 41 **Telaranea** Spruce ex Schiffn.
 1 **europaea** J.J.Engel & G.L.Merr.
 1, 49. H1–3, 6, 16, 27, 35.
- 42 **Tricholepidozia** (R.M.Schust.) E.D.Cooper
 1 **tetradactyla** (Hook.f. & Taylor) E.D.Cooper [*Telaranea tetradactyla*]
 17, 98.
 2 **lindenberghii** (Gottsche) E.D.Cooper
 49.
- 43 **Trichocolea** Dumort.
 1 **tomentella** (Ehrh.) Dumort.
 1–6, 8, 9, 11–14, (15), 16, 17, (18, 20, 21), 22, 24, (26), 34–37, (38, 39), 40–50, (52), 57, (58, 59), 60, 62–67, (68), 69–83, 85–90, (91, 92), 93–105, (106), 107–109, 111. H1–3, (4, 5), 6, 8, 9, (10), 13, (14), 15, 16, (18), 20, 26–30, 33–36, (38), 39, 40.
- 44 **Lophocolea** (Dumort.) Dumort.
 1 **bidentata** (L.) Dumort.
 1–112, H1–40. C.
 2 **bispinosa** (Hook.f. & Taylor) Gottsche, Lindenb. & Nees
 1–4, 9, 11, 13, 14, 17, 41, 72, 74, 78, 83, 98, 102. H36.
 3 **heterophylla** (Schrad.) Dumort.
 1–70, (71), 72–91, 93, 95–105, (106), 112. H1–8, 10–15, (16), 17–23, (24), 25, 27, 29–33, (34), 35, (36), 37–40. C.
 4 **semiteres** (Lehm.) Mitt.
 1–4, 6, 10–14, 16–19, 21, 22, 24–31, 35, 38–41, 45, 46, 48, 53–59, 61–66, 68–70, 72, 73, 75–81, 83–88, 90, 96, 98–100. H20, 38.
 5 **brookwoodiana** Paton & Sheahan
 17.
 6 **fragrans** (Moris & De Not.) Gottsche, Lindenb. & Nees
 1–5, (6), 9, 10, 13, 14, 34, 35, 40–42, (43), 44–50, 52, 57, 60, 69–71, (72), 73–76, 81, 87, 97–105, 108, 110, 112. H1–3, 5–12, (13), 15, 16, 20, 21, (24), 25–27, (28), 29, 33–40. C.
 7 **muricata** (Lehm.) Nees
 6†.
- 45 **Chiloscyphus** Corda
 1 **polyanthos** (L.) Corda
 1–26, (30, 32), 33–52, 54–60, (61), 62–112. H1–16, 18–21, 23,

- 25–40. C.
- 2 **pallescens** (Ehrh. ex Hoffm.) Dumort.
1–20, 22–54, 56–60, (61), 62–65, 67–70, (71), 72–78, 80, 81,
(82), 83–85, (86), 87–90, (91), 92, 94–98, (99), 100–112. H1–3,
(4–6), 7, (8), 9, (12), 13, 16, 19, 20, (21), 22, (23, 24), 25–33,
(34), 35, (36–38), 40.
- 46 **Heteroscyphus** Schiffn.
1 **fissistipus** (Hook.f. & Taylor) Schiffn.
6. H1.
- 47 **Leptoscyphus** Mitt.
1 **cuneifolius** (Hook.) Mitt.
48, 87, (88), 97–105, 108, 110. H1–3, (4), 7, 16, 27, 29, 33, 35.
- 48 **Plagiochila** (Dumort.) Dumort.
1 **carringtonii** (Balf. ex Carrington) Grolle
87, 88, (90), 92, 94, 96–100, 102, (103), 104–108, 110–112.
H16, 27.
2 **porelloides** (Torr. ex Nees) Lindenb.
a var. **porelloides** [*Plagiochila porelloides*]
1–17, 20, 22–24, 29, 30, 32–37, (38), 39–52, (54), 55–112.
H1–40. (C).
b var. **norvegica** (H.H.Blom & Holten) Schumacker & Váňa
[*Plagiochila norvegica*]
9.
3 **asplenioides** (L.) Dumort.
1–20, 22–112. H1–23, (24), 25–40. C.
4 **britannica** Paton
3, 33–37, 39–45, 49–52, 57, 60, 62–70, 72, 75–78, 80–82, 86,
88–91, 94–99, 101–106, 110, 111. H2, 6–9, 16, 24–29, 33–35,
(37), 39, 40.
5 **heterophylla** Lindenb. ex Lehm.
46, 48, 49, 69, 70, 87, 97–99, 101–105, 108. H1–3.
6 **spinulosa** (Dicks.) Dumort.
1–5, (11, 34), 35, (37), 40–50, (57, 59), 60, (63), 64, 65, 67,
69, 70, 72, (73), 75, 76, 78–80, 82, 83, (85), 86–88, 95–108,
110–112. H1–13, 15–17, 20, 25–30, 33–36, 38–40.
7 **bifaria** (Sw.) Lindenb.
1–4, 6, 9, 11, (14), 41–50, 52, 64, 65, 69–71, (73), 74, 75, 86–88,
95–98, 100–105, 108, 110–112. H1–3, 5–11, 16, 20, 23, 25–29,

- 31, 33–35, 38–40. C.
- 8 **punctata** (Taylor) Taylor
1–5, 41–49, (64), 65, 69, 70, (71), 72, 73, 75, 86–88, 96–106,
108, 110, 112. H1–3, (5), 6–10, (13), 16, 20, 26–29, (30), 31, 33,
(34), 35, 36, (39), 40.
- 9 **exigua** (Taylor) Taylor
41, 42, 44, 46–49, (64), 65, 69, 70, (73), 75, 86, 87, 97, 98, (99),
100–105, 108, 110. H1–3, 6, 7, 16, 27, (28), 35, (39, 40).
- 49 **Pedinophyllum** Lindb. ex Nordst.
1 **interruptum** (Nees) Kaal.
42, 57, 60, 64, 65, 69, 98. H(1), 9, 28, 29, 33, 36.
- 50 **Acrobolbus** Nees
1 **wilsonii** Nees
97, 98, 101, 103–105, 108, 110. H1, 2, (3), 16, 27, 35.
- 51 **Geocalyx** Nees
1 **graveolens** (Schrad.) Nees
97, 104, 105, 108, 110. H(1), 27, 33, 35.
- 52 **Gongylanthus** Nees
1 **ericetorum** (Raddi) Nees
1. C.
- 53 **Southbya** Spruce
1 **tophacea** (Spruce) Spruce
1, 41, 45, 51, 52. H20, 26, (28).
2 **nigrella** (De Not.) Henriq.
9, 10.
- 54 **Calypogeia** Raddi
1 **fissa** (L.) Raddi
1–112, H1–40. C.
2 **muelleriana** (Schiffn.) Müll.Frib.
1–30, 34–52, 54–112. H1–4, (5), 6–14, 16–31, (32), 33–40. C.
3 **azurea** Stotler & Crotz
35, 40, 42, 48, 49, (50), 52, 57–60, (63), 64–70, 72, 73, 75, 76,
78, 80–83, 87–90, 92, (93), 94, 96–98, (99, 101), 102, 103, 105,
106, 108, 110–112. H1–3, (6, 7), 16, 20, 27, (33), 34, 35, (36,
40).
4 **neesiana** (C.Massal. & Carestia) Müll.Frib.
(3), 11, 13, 17, 40, 42, 44–46, (47), 48–50, 58–60, 62, 63, 67,
(68), 69, 70, (72), 73, 75, 77–81, 83, (85), 87–89, (90), 91–93,

- 95–98, 101, 102, 104–110, 112. H2, (7), 10, (13), 15, 16, 20, 22, 23, 26–30, 33, (34, 35, 40).
- 5 **integristipula** Steph.
8, 14, (15), 16, 39, 57–60, 62–64, 66–68, 70, (72), 74, 78, 83, (86), 87, (92), 96, 97, 99, 100, (101, 105, 106). H(2), 33, (39).
- 6 **sphagnicola** (Arnell & J.Perss.) Warnst. & Loeske
2, (3, 8), 9, 11–14, (15), 17, 22, (26), 28, 39, 40, 42, 44–50, 58, (60), 64, (65, 66), 67, 70, (73), 74–77, 79–81, 83, 84, 86, (87), 88, 89, (90), 92, 93, 95–98, 101–112. H2, 3, (6), 7, 9, 10, (11), 14, 16–19, 22–28, (29), 30, (32, 33), 34–36, (37), 38–40.
- 7 **suecica** (Arnell & J.Perss.) Müll.Frib.
96–98, 100, 101, 103–108. H1, 21, (33, 36).
- 8 **arguta** Nees & Mont.
1–29, 32–52, (53), 54–88, 90, (91), 92–94, 96–106, 108–112. H1–18, (19), 20–22, (23), 24–29, (30), 31–40. C.
- 55 **Hygrobiella** Spruce
1 **laxifolia** (Hook.) Spruce
(14), 41, 42, 44, 46–50, 57, 62–67, (68), 69–73, 75, 76, (77), 79, 80, 83, (86), 87–90, (91), 92, 94–108, (109), 110, 112. H1–3, (4, 6, 7), 16, 20, (21), 27–29, (33, 34), 35, (36), 38, (39), 40.
- 56 **Anthelia** (Dumort.) Dumort.
1 **julacea** (L.) Dumort.
3, 42, 46–49, 64, (65), 68–70, (71, 72), 73, 75, 78, (85), 86–90, 92, 94–98, (99), 100, (101), 102–108, 110, (111), 112. H1–3, 6, (7), 8, 13, 16, 20, 27, 28, 34, 35, 38, (40).
- 2 **juratzkana** (Limpr.) Trevis.
(48), 49, 75, 86–90, 92, 94, 96–98, 100, (101), 103–106, (107), 108, (109), 110, 112. H1, 16, 27, 34, 35, 39.
- 57 **Mesoptychia** (Lindb.) A.Evans
1 **rutheana** (Limpr.) L.Söderstr. & Vána [*Leiocolea rutheana* var. *rutheana*]
(27), 69, 79, 80, 89. H27.
- 2 **gillmanii** (Austin) L.Söderstr. & Vána
a var. **gillmanii** [*Leiocolea gillmanii*]
(64), 65, 68, 88, 89, 92, 97, 98, 104, (105), 106, 108–110, 112. H27, 35.
b var. **laxa** (Schiffn. ex Burrell) L.Söderstr. [*Leiocolea rutheana* var. *laxa*]

- 22, (27), 28.
- 3 **bantriensis** (Hook.) L.Söderstr. & Váňa [*Leiocolea bantriensis*]
35, (36, 38), 40–44, 46–50, 52, 59, 60, (62), 64–67, (68), 69, 70,
72, 73, 75–83, (85), 86–98, (99), 100–112. H1, (2), 3, (7), 9,
14–16, (20), 27–31, 33, 35, (36, 38), 39, 40.
- 4 **fitzgeraldiae** (Paton & A.R.Perry) L.Söderstr. & Váňa [*Leiocolea fitzgeraldiae*]
49, 88, 96–98, (103), 104, 105, 108, 111. H27–29, 33, 35.
- 5 **collaris** (Nees) L.Söderstr. & Váňa [*Leiocolea collaris*]
(34), 35, 36, 39–44, 46–50, 56, 57, 60, 62–67, 69, 70, (71),
72, 73, 75, (76, 77), 78–80, 82, 83, (85), 86–92, 94–99, (100),
101–108, (109), 110–112. H1, (2), 16, 26–29, 33–35, (36), 39.
- 6 **heterocolpos** (Thed. ex Hartm.) L.Söderstr. & Váňa [*Leiocolea heterocolpos*]
42, 44, 46, 48–50, 65, (66), 67, 68, (69, 72), 83, (86), 87–90,
92, (94), 95–98, 101, (103), 104–108. H39.
- 7 **badensis** (Gottsche ex Rabenh.) L.Söderstr. & Váňa [*Leiocolea badensis*]
(1, 2), 4–9, 11–14, 16–18, 20, 22–24, (25), 28–30, 32–36, 39–42,
44–47, (48), 49–52, 57–60, 62–70, 72, 75–77, (78), 79–90, (91),
92, 94, 97, 98, (101), 102, 104–106, 108–111. H4, 5, 7–11, 13–23,
25–29, 33–35, (36), 38–40.
- 8 **turbinata** (Raddi) L.Söderstr. & Váňa [*Leiocolea turbinata*]
1–47, (48), 49–54, 56, 57, (58), 59–78, 80–85, (87), 89–91,
93–98, (99), 100–104, 106, (107), 108–112. H1, 2, 4, (5), 6, (7),
8–13, (14, 15), 16, 17, (18), 19–22, 24–29, (31, 32), 33–36, (37,
38), 39, 40.
- 58 **Liochlaena** Nees
- 1 **lanceolata** Nees
(14, 62, 64, 69), 105.
- 59 **Eremonotus** Lindb. & Kaal. ex Pearson
- 1 **myriocarpus** (Carrington) Lindb. & Kaal. ex Pearson
42, 48, 49, (69), 70, 80, 86–89, (90, 91), 96–99, 101, 103–106,
108, 111. H1, 2, 16, 27, 34, 40.
- 60 **Jungermannia** L.
- 1 **atrovirens** Dumort.
(1, 2), 3–7, (8), 9, 12–14, (23, 32), 33–37, 39–52, 55–60, (61),
62–70, (71), 72, 73, (74), 75–112. H1–3, (4), 5–11, 16, 17, 20,

- 22, 23, 25–36, (37, 38), 39, 40.
- 2 **pumila** With.
1–6, 12–16, 34–37, 39–51, (52), 57–60, 62–90, (91), 92–106,
108–112. H1, (2), 3–8, 10, (11), 13, 14, 16, 20, 26–29, (30, 31),
33–35, (36, 37), 38–40.
- 3 **polaris** Lindb.
88–90, (92), 94, 97, 111.
- 4 **borealis** Damsh. & Váňa
42, 44, 49, 87–90, 92, 94, 96–98, 101, 104, 105, (106).
- 5 **eucofordifolia** Schljakov [*Jungermannia exsertifolia*]
35, 42, 44, 45, 47–51, 57, 59, 60, (62), 63–70, (71), 72, 73, 75,
(76), 77–83, (85), 86–90, (91), 92, 93, 95–98, (99), 101–112.
H1–3, (6), 16, 27, 34–36, (38–40).
- 61 **Harpanthus** Nees
- 1 **flotvianus** (Nees) Nees
69, (73), 87–90, 92–94, 96–98, 104–108, (109), 111, 112.
- 2 **scutatus** (F.Weber & D.Mohr) Spruce
(2), 3, 5, 14, 16, (36), 45–49, 60, 62, 64, 65, (67, 69), 70, (72),
80, (86, 87), 97–105, 108, 110–112. H1–3, (6), 16, (20), 27,
(28), 29, 33, 35, (36, 39, 40).
- 62 **Saccogyna** Dumort.
- 1 **viticulosa** (L.) Dumort.
1–6, 11, 14, 34–37, 39–50, 52, 59, 60, 62–65, (66), 67, 69–76,
(77, 78), 86–88, (90), 93, 96–108, 110–112. H1–11, (12), 13,
14, 16, 18, 20, (21), 25–31, (32), 33–35, (36), 38–40. C.
- 63 **Endogemma** Konstant., Vilnet & A.V.Troitsky
- 1 **caespiticia** (Lindenb.) Konstant., Vilnet & A.V.Troitsky
[*Solenostoma caespiticium*]
1, 2, (10, 17, 33), 43, 47, 57, 59, 63, 64.
- 64 **Solenostoma** Mitt.
- 1 **sphaerocarpum** (Hook.) Steph.
3, (4, 36), 39, 41–44, 46–50, (55), 57–60, 62–70, (71), 72, (73,
75), 80, 83, (86), 87, 88, (89–91), 92, 96–99, 101, 102, 104–109,
(110), 112. H(1–3), 9, 14, 16, 20, 21, 27, 29, (31, 33, 36–40).
(C).
- 2 **confertissimum** (Nees) Schljakov
(44, 65, 66), 79, 88, 89, (91), 92, 94, 96–98, 104, 105.
- 3 **gracillimum** (Sm.) R.M.Schust.

- 1–25, (26), 27, 28, (32, 33), 34–37, (38), 39–60, (61), 62–83, (84, 85), 86–112. H1–16, 20, 21, (25), 26–30, (31), 32–36, (37), 38–40. C.
- 4 **hyalinum** (Lyell) Mitt.
1–5, (6), 7, 8, (9, 10), 11–16, (17, 20, 21), 22, (23), 27, (33, 34), 35, (36), 37–51, (55), 57, (59), 60, 62–73, 75–77, (80, 83–86), 88–92, 94, 96–104, 106–108, 110. H(1), 2, 3, (5), 8–10, 15, 16, 20, 25, 27, 28, (30, 31), 33–35, (36, 37), 39, 40.
- 5 **paroicum** (Schiffn.) R.M.Schust.
5, 12, 35, 39, 41–43, (44), 46–50, 57, 59, 60, (62–65), 67–70, (71), 72, 73, 75–83, 86–98, (99), 100–112. H1, 6, 8, 16, 27, 34, (35, 36, 38–40).
- 6 **obovatum** (Nees) C.Massal.
41–50, 57, 58, (59), 60, 62–70, (71–74), 75–78, (79), 80–83, 86–90, (91), 92, 94–108, (109), 110, 112. H1–3, (4, 6, 7), 8, (9), 16, 20, (21), 27, 29, (30), 33–36, (38), 39, 40.
- 7 **subellipticum** (Lindb. ex Heeg) R.M.Schust.
(2, 5), 35, 42, 48, (49), 62, 64, 65, (67), 70, 72, 79, 80, 82, 83, 87–90, (91), 92, 94–98, 100–106, 108, 110–112. H16, 27–29, 34, 35, (39).
- 65 **Nardia** Gray
- 1 **compressa** (Hook.) Gray
2–5, 14, 35, 39–50, 57–60, 62–67, 69–73, 75, 76, 80, 83, 86–89, (90), 91, 92, 94, 96–108, 110–112. H1–3, 6, 7, (8), 10, 12, 13, 16, 20, (21, 26), 27–29, (30), 33–35, (36), 38, (39).
- 2 **scalaris** Gray
1–6, (7), 8–18, 20, (21), 22, 23, (24, 25), 27, 28, 30, 32, (33), 34–37, (38), 39–52, (54), 55–60, (61), 62–112. H1–16, 18, 20–22, 25–31, 33–40. C.
- 3 **geoscyphus** (De Not.) Lindb.
(3–5, 11), 12, (13), 14, (16), 17, (18), 22, (28, 34, 35, 38), 40, 41, 45, 46, (48), 49, 54, 57–60, (61, 62), 63, (64–67, 69, 72, 77), 79, 87–89, (90), 92, (93), 95–98, (101), 102, 104–106, (107), 108, (109), 112. H1, 2, (13, 16), 27, 34, 35.
- 4 **insecta** Lindb.
67.
- 5 **breidleri** (Limpr.) Lindb.
87–89, (90), 92, 94, (96), 97, 98, 105, 106.

66 *Gymnomitrion* Corda

- 1 **concinatum** (Lightf.) Corda
(2), 45, 47–49, (64), 68–70, 72, 73, (75), 77, 78, 80, 86–90, (91),
92, (93), 94–98, (99), 100, (101), 103–108, (109), 110. H16, 27,
34, 35, (39).
- 2 **obtusum** Lindb.
(2, 4), 40, 42, 46–50, 65–70, 72, 73, 75–78, 80, (85), 86–90,
(91), 92–100, 103–108, (109), 110, 112. H1, 6, 13, 16, 20, 27,
35, (38, 40).
- 3 **corallioides** Nees
(49), 88, 89, 92, 97, 104, (105), 106, 108, (109). H(1), 34.
- 4 **crenulatum** Gottsche ex Carrington
3, 4, 44–46, 48, 49, 65, 68–73, 75, 78, 86–88, (90), 92, 96–98,
(99), 100, (101), 102–112. H1–4, 6, 7, 12, 13, 16, 20, (21), 27,
28, (29, 30), 31, 33–35, (36), 38–40.
- 5 **adustum** Nees [*Marsupella adusta*]
48, 49, 69, 70, 72, 73, (77), 87, 88, (89), 90, 92, 94, 96–98, (99),
103–106, (108), 110. H1, 27, 35, 36, 38–40.
- 6 **brevissimum** (Dumort.) Warnst. [*Marsupella brevissima*]
87, 88, (89), 90, 92, 94, 96–98, 104–106, (107), 108.
- 7 **alpinum** (Gottsche ex Husn.) Schiffn. [*Marsupella alpina*]
48, 49, 69, (70), 73, 75, 86–88, (89), 90, (91), 92, 94, 96–98,
103–106, 108. H20.

67 *Marsupella* Dumort.

- 1 **apiculata** Schiffn. [*Gymnomitrion apiculatum*]
92, 94, 96, 97.
- 2 **emarginata** (Ehrh.) Dumort. [*Marsupella emarginata* var.
emarginata]
1–5, (6), 13–16, 34–37, 39–50, 52, 57–60, 62–70, (71), 72–112.
H1–10, 12, 13, (14), 16, 20–22, 25–29, (30), 31–36, (37),
38–40. (C).
- 3 **aquatica** (Lindenb.) Schiffn. [*Marsupella emarginata* var.
aquatica]
3, 4, (36), 41, (42), 43–49, 57, 58, (59, 60, 62), 63, (65, 66), 67,
(68), 69, 70, (71), 73, (74), 75, (76), 78, (80, 83), 86, 87, (88,
89), 90, (91), 92, 94–96, (97–100), 101, (102–104), 105, 107,
(108, 109), 110, (111). H1, 2, (3, 4, 6, 13, 16), 20, (21), 26–29,
(30), 33–35, (36, 38, 39).

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- 4 **arctica** (Berggr.) Bryhn & Kaal.
92, 94.
- 5 **sphacelata** (Giesecke ex Lindenb.) Dumort.
4, (42), 44, 48, 49, (62, 65), 70, 73, (86), 88–90, 92, 94, 96–100,
(101), 102–108, (110). H6, 20, (27, 33), 35.
- 6 **funcckii** (F.Weber & D.Mohr) Dumort.
(1), 2, 3, (4, 7, 9, 14, 37, 40), 42–44, 46–50, (58, 65), 68–70,
(72), 73, 75, 77, 79, 80, 83, 86–88, (89), 90, (91), 92, 94–99,
(100), 101, 103–108, 110. H(2), 3, (7), 12, 16, 20, 27, 31, (35,
37, 38), 39. C.
- 7 **sprucei** (Limpr.) Bernet
1–3, 13, 42, 44–46, 48, 49, (62), 64, 65, (66, 67), 68–70, 72, 73,
(76), 78, (79, 87), 88–90, 92, 94, 96–98, (99, 101), 102–106,
108. H1, (2), 16, 20, 27, 35, (36), 38, 39.
- 8 **profunda** Lindb.
1, 2.
- 9 **sparsifolia** (Lindb.) Dumort.
92, 94, 97.
- 10 **boeckii** (Austin) Lindb. ex Kaal.
(92), 96–98.
- 11 **stableri** Spruce
48, 49, 69, 70, 88, (90), 92, 94, 96–98, 100, 103–106, 108.
- 12 **condensata** (Ångstr. ex C.Hartm.) Lindb. ex Kaal.
88, 92, 94, 96, 97.
- 68 **Adelanthus** Mitt.
1 **lindenbergianus** (Lehm.) Mitt.
102. H1, 16, 27, 35.
- 69 **Syzygiella** Spruce
1 **autumnalis** (DC.) K.Feldberg, Váňa, Hentschel & Heinrichs
[*Jamesoniella autumnalis*]
(2), 3, 5, (14, 34), 35, 37, (40), 42–44, 46, 48, 49, 60, (64), 69,
70, 73, 86–88, (90), 96–99, 101, 105.
- 70 **Pseudomarsupidium** Herzog
1 **decipiens** (Hook.) Grolle [*Adelanthus decipiens*]
2, 3, 46, 48, 49, 69, 70, 73, 86, 87, 97–105. H1–3, 6, (7), 9, 15,
16, 25, 27, (28), 29, 33, (34), 35, (39), 40.
- 71 **Cephalozia** (Dumort.) Dumort.
1 **bicuspidata** (L.) Dumort.

- 1–112, H1–18, (19), 20–40. C.
- 2 **ambigua** C.Massal.
88, 92, 94, 96.
- 3 **catenulata** (Huebener) Lindb.
1, (2, 3), 4, 11, (13), 14, 41, 42, 44, 46–49, 52, (62, 63), 64, (67),
68, (69), 70, (71), 72–75, (80), 83, (88, 92), 95, (96), 97–100,
102–105, 108, 110, 112. H1, (2, 3, 7, 9, 13), 16, (17, 18), 20,
(21), 25, 27, 28, (29–31, 33, 34), 35, (36, 38, 39).
- 4 **macrostachya** Kaal.
a var. **macrostachya**
2, 3, 8, 10–14, (15), 17, (24), 28, 39, 40, 45, 46, (48), 50, 58, 62,
70, 72, 80, 96, 99, 102, 104–106, 108–110, 112. H(1), 3, 10, 18,
19, 25, 28, 34, (35, 37).
b var. **spiniflora** (Schiffn.) Müll.Frib.
(9, 11, 13, 17, 39), 46, 52, 67, (68), 72, 74, 75, (80, 81), 83, 84,
(89, 96), 99, 102, 109. H(7), 9, 19, 20, 34, (35).
- 5 **leucantha** Spruce
(1), 2, (17, 48, 49), 50, 60, (68), 70, (72), 73–75, (77), 78, 80,
(81–83, 86, 87), 88, (89–91), 92, (93), 94–99, (100), 101–112.
H1, 3, (9, 12), 16, 20, (25), 26–30, 33, (34), 35, (36, 40).
- 6 **lunulifolia** (Dumort.) Dumort.
1–17, 20, 22–26, 29, 31–37, 39–52, 54, (55, 56), 57–60, (61),
62–70, (71), 72–76, (77), 78–89, (90), 91–112. H1–4, (5),
6–12, (13, 15), 16, 18, 20, 21, (26), 27–29, (30), 31, 33–36, (37),
38–40.
- 7 **pleniceps** (Austin) Lindb.
2, 4, (6, 11, 14, 27), 35, 40, 42–50, 52, (70), 75, 76, 79–81, 83,
88, 89, (90), 92, 93, (94), 95–98, 100, 103–106, 108–112. H(1),
9, 14, 16, 20, 23, 25–27, 35, 36, 38, (39).
- 8 **loitlesbergeri** Schiffn.
46–48, 50, 60, (64, 66), 70, 73–76, (77), 79–81, 83, 87–89, (90),
92, (94), 95–98, 102–112. H9, 14, (16), 18, (22), 24, (35), 39.
- 9 **connivens** (Dicks.) Lindb.
1–6, 8–18, (19, 20), 22, (23), 24–30, (32), 34, 35, 38–52, 54,
55, 57–70, (71), 72–112. H1–4, (6), 7–10, (11), 12–20, (21),
22–36, (37), 38–40. C.
- 10 **crassifolia** (Lindenb. & Gottsche) Fulford
H1–3, 7, 16, 27.

- 11 **curvifolia** (Dicks.) Dumort. [*Nowellia curvifolia*]
 1–29, 31–52, 55–112. H1–3, (5), 6, (7), 9, (11), 15–18, 20, 21,
 23, 25–29, (30, 31), 33–35, (36), 37–40.
- 12 **albescens** (Hook.) Dumort. [*Pleurocladula albescens*]
 88, (89, 90), 92, 94, 96–98, (100), 105, 106.
- 72 **Odontoschisma** (Dumort.) Dumort.
- 1 **fluitans** (Nees) L.Söderstr. & Váňa [*Cladopodiella fluitans*]
 1–3, 8–15, 17, 22, (27), 28, 35, 39–50, 57–60, 62–64, (65),
 66, 67, (68), 69, 70, 73–77, 80, (83, 88, 92, 95), 96–99, (101),
 102–110, 112. H1–3, 9, 10, 16–20, (21), 22, 23, (24), 25–28,
 33–36, (37, 38), 39.
- 2 **francisci** (Hook.) L.Söderstr. & Váňa [*Cladopodiella francisci*]
 1, 2, (3), 8, 9, 11, (12), 13, 14, (16), 17, (22, 24–28, 34, 35),
 40, 41, 45, 46, (48), 52, (58), 61, 62, (64, 71), 88, (90, 91), 92,
 94–99, (100), 101, 102, (103), 104, 105, (110). H1, (3, 21, 27),
 29, 35, 38, (39).
- 3 **sphagni** (Dicks.) Dumort.
 1–5, 8, 9, 11–15, (16), 17, (21), 22, (23–25), 27, 28, (29, 34), 35,
 (37), 39–52, 54, (55), 57–70, (71), 72–84, (85), 86–112. H1–4,
 (5), 6–10, (11), 12, (13), 14–20, 22–40.
- 4 **denudatum** (Mart.) Dumort.
 2–5, 8, 9, 11–14, (16), 17, 22, 25, (26), 28, 39–52, 57–61, (62),
 63, 64, (66), 67–70, (71), 72–75, 77–81, 83, (84, 85), 87–89,
 (91), 94–110, (111), 112. H1–3, (7), 9, 10, (11, 13, 14), 15–20,
 (21), 22–30, (31), 33–36, (37, 40).
- 5 **elongatum** (Lindb.) A.Evans
 49, 75, 87–89, 92, 94, 96–98, (99), 102, 104–108, 110, (111),
 112. H1, 3, 12, (16), 27.
- 6 **macounii** (Austin) Underw.
 88, 97, 98, 105, 106.
- 73 **Anastrophyllum** (Spruce) Steph.
- 1 **hellerianum** (Nees ex Lindenb.) R.M.Schust.
 41, 42, 44, 46–48, (69), 70, 87, 88, 92, 95–98, 101, 104, 105,
 107, 108. H(33, 40).
- 2 **donnianum** (Hook.) Steph.
 88, 92, 94, 96–98, 104–108.
- 3 **joergensenii** Schiffn.
 92, 94, (96), 97, 105, 106, 108.

- 4 **alpinum** Steph.
105–108.
- 74 **Sphenolobus** (Lindb.) Berggr.
- 1 **minutus** (Schreb. ex Cranz) Berggr. [*Anastrophyllum minutum*]
(4), 11, (14), 35, 36, 42, 44–46, 48, 49, 52, 57, (60, 62, 63),
64–67, (68), 69, 70, 72, 73, (74), 75–83, (85), 86–98, (99),
100–112. H1–3, (6, 7, 13), 16, 20, 21, (25), 27–30, 33, (34), 35,
(36, 38).
 - 2 **saxicola** (Schrad.) Steph. [*Anastrophyllum saxicola*]
92, (95), 96, 108.
- 75 **Gymnocolea** (Dumort.) Dumort.
- 1 **inflata** (Huds.) Dumort.
a subsp. **inflata** [*Gymnocolea inflata*]
1–6, (7), 8–25, (26), 27, 28, 30, 32, (33), 34–112. H(1), 2, 3,
(5–7), 9, 10, 12, 13, (14, 15), 16, 18, 20, 21, 23–25, (26), 27–29,
(30), 31, (33), 34–36, (37), 38–40. (C).
b subsp. **acutiloba** (Schiffn.) R.M.Schust. & Damsh. ex
L.Söderstr. & Váňa [*Gymnocolea acutiloba*]
48, 96.
- 76 **Orthocaulis** H.Buch
- 1 **floerkei** (F.Weber & D.Mohr) H.Buch [*Barbilophozia floerkei*]
2–5, (6), 13, 28, 35, 36, (37), 39–52, 55, 57–60, 62–112. H1–3,
6, 7, (8), 10, 12, 13, (16), 20, (21), 27, (28), 29, (30), 31, 33–36,
38–40.
 - 2 **atlanticus** (Kaal.) H.Buch [*Barbilophozia atlantica*]
39, 40, 46–52, 55, 57–60, 62–65, (66), 67–72, (73), 75, 76,
78–80, 83, 86, 89, 90, (91), 92, 94–99, (100), 101, 102, 105,
108–112. H6, 34.
 - 3 **attenuatus** (Mart.) A.Evans [*Barbilophozia attenuata*]
(1), 2–5, (6, 9, 11), 12–14, 16–18, (20, 22, 23), 24, 27, 28, 30,
34–37, 39–52, 54–60, (61), 62–70, (71), 72–90, (91), 92–108,
(109), 110. H(1), 3, 6, (7), 11, (12, 13), 16, 20–22, 25, 27, 28,
(29), 30, 31, 33–36, (37), 38–40. C.
- 77 **Anastrepta** (Lindb.) Schiffn.
- 1 **orcadensis** (Hook.) Schiffn.
(4), 46–50, 60, 64, 65, (68), 69, 70, 72, 73, 75, 77, 78, 83, (85),
86–90, 92–112. H1–3, 16, 20, 27, (29), 30, 33, 35.
- 78 **Tetralophozia** (R.M.Schust.) Schljakov

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- 1 **setiformis** (Ehrh.) Schljakov
(68), 88–90, (91), 92, (93), 94–98, 105, 106, 108, 109.
- 79 **Sphenobolopsis** R.M.Schust. & N.Kitag.
1 **pearsonii** (Spruce) R.M.Schust.
42, 44, 46–49, (64), 69, 70, (73, 75, 87), 96–106, 108, 110. H1,
2, (3, 6), 7, 16, 20, (27, 31), 33, 35, 40.
- 80 **Biantheridion** (Grolle) Konstant. & Vilnet
1 **undulifolium** (Nees) Konstant. & Vilnet [*Jamesoniella undulifolia*]
(1), 2, (34), 40, 43, 47, 69, 98, 101.
- 81 **Barbilophozia** Loeske
1 **quadriloba** (Lindb.) Loeske
88, 89, 92, 98.
2 **kunzeana** (Huebener) Müll.Frib.
35, 40, 42, 43, 47, 48, 51, (64), 67–69, (71), 80, 88, 90, (92), 95,
96, (97), 108, (110), 112. H(28).
3 **hatcheri** (A.Evans) Loeske
4, (26), 28, 40, 42, 43, 48, 49, (50), 55, 64–70, 72, 75–99,
105–110.
4 **lycopodioides** (Wallr.) Loeske
64–66, (68), 69, (70), 87–90, 92, 94, 96–98, 104–106, (107),
108, 112.
5 **barbata** (Schmidel ex Schreb.) Loeske
2, 3, (14, 25), 26, (28), 35, 36, (37), 40, (41), 42–44, 46–51,
54, (55), 57, (59), 60, 62–70, 72–76, (77), 78–90, (91), 92–100,
(101), 103–108, (109). H(1, 12), 20, (21, 27, 30, 35), 40.
6 **sudetica** (Nees ex Huebener) L.Söderstr., De Roo & Hedd.
[*Lophozia sudetica*]
2, 3, 35, 36, 40, 42–50, 52, 57, (58), 60, 63–65, (66), 67–70,
(71), 72, 73, 75–90, (91), 92–99, 101, 103–106, (107), 108,
(109), 110, 112. H1–3, 12, (13), 16, 20, (21), 25, 27, 28, (30),
31, 35, (36, 37), 38–40.
- 82 **Isopaches** H.Buch
1 **bicrenatus** (Schmidel ex Hoffm.) H.Buch [*Lophozia bicrenata*]
1,2,(3),4–6,(7,8),9,(10,11),12–18,(19–21),22,23,(24),25–28,
(30, 32, 33), 34–37, (38, 39), 40–54, (55), 56–60, (61, 62), 63,
(64), 65–67, (68), 69, 70, (71), 72–75, 77–84, (85), 86, 88–92,
94–98, (99, 100), 101–106, 108, (109). H(1, 2, 4), 6, (7, 8),

- 10, 12, (13, 16), 20, (21), 22, 28, (35), 36, (37, 38), 39, 40. (C).
- 83 **Cephaloziella** (Spruce) Schiffn.
- 1 **spinigera** (Lindb.) Warnst.
1, (2, 4, 8), 12, (13), 14, 17, 22, (34), 46, (52, 67), 69, 70, 81–83, (88, 92, 96), 97, 98, 104, 105, 110, 112. H(1), 9, 10, 20, 23, (27), 29, 35.
 - 2 **elachista** (J.B.Jack ex Gottsche & Rabenh.) Schiffn.
8, 11, 12, 14, (22, 27), 40, 45, 58, (61), 69, 70, 81. H19, (21), 23.
 - 3 **rubella** (Nees) Schiffn.
4–7, 9, (11), 12–14, 17, 20, 22, (23), 24–26, (28, 29), 30, (33, 34), 35, (37, 38), 40–43, 45, 46, 48, 50, (51, 56), 57–60, (61, 62), 63, 64, (67), 68, 69, (71, 72, 74, 76), 78, (80, 81), 82, 83, (85, 86), 87, 88, (89–91), 92, 93, (94), 95–99, 103, (105), 106, (107), 110, (111). H6, 9, 20, 23, (34, 37, 39). (C).
 - 4 **hampeana** (Nees) Schiffn. ex Loeske
1–6, (7), 9–20, 22, (23), 24, 26–28, (29), 31, 34, 35, 38–52, 55, (56), 57–60, (61), 62–70, (71), 72–75, (76), 77–80, 82, 83, 85–88, (89), 90, (91), 92–99, 101–110, 112. H1–3, (4), 5, 6, (7), 8–10, (11, 12), 13, 15–18, 20–25, 27, 28, (29, 30), 32, (33), 34, 35, (36, 37), 38–40.
 - 5 **baumgartneri** Schiffn.
9–11, 13, (14), 15, (17).
 - 6 **divaricata** (Sm.) Schiffn.
1–9, (10), 11–73, (74), 75–108, 110–112. H(1), 2–4, 6–13, 16, 18, 20–23, 26–28, (29, 30), 31, 33–36, (37, 38), 39, 40. C.
 - 7 **stellulifera** (Taylor ex Carrington & Pearson) Croz.
1–6, (10, 13, 14, 16, 33), 34, 35, (36, 37), 41, 44–49, (50), 52, (56), 57, 58, (61, 64, 66), 69, 71, (77), 87, 92. H1–3, 6, 9, 10, 12, 20, (27, 34), 35. C.
 - 8 **massalongoi** (Spruce) Müll.Frib. [*Cephaloziella massalongi*]
1–4, 48, 49, 52, 58, 69. H2, 3, 6, 20, 21.
 - 9 **nicholsonii** Douin
1–4, 46, (48), 49, 58. H3, 6, 10, 12, 20.
 - 10 **dentata** (Raddi) Steph.
1, 45.
 - 11 **turneri** (Hook.) Müll.Frib.
1–3, (10, 11, 13, 14, 16, 33), 34, 35, (36, 38), 44–46, 48, 49, (101). H(2), 3, 11, 12, 20, 35. (C).

- 12 **integerrima** (Lindb.) Warnst.
1, 2, (7, 13, 14, 22), 45, 110. H3, 6, 34.
- 13 **calyculata** (Durieu & Mont.) Müll.Frib.
1, 2, 6, 41, 45, 46.
- 84 **Protolophozia** (R.M.Schust.) Schljakov
1 **herzogiana** (E.A.Hodgs. & Grolle) Váňa & L.Söderstr.
[*Lophozia herzogiana*]
12, 93.
- 85 **Oleolophozia** L.Söderstr., De Roo & Hedd.
1 **perssonii** (H.Buch & S.W.Arnell) L.Söderstr., De Roo & Hedd. [*Lophozia perssonii*]
8, 12, 14–16, 18, 21, 24, 27, 29, 56, 57, 63, 64, 66. H19.
- 86 **Obtusifolium** S.W.Arnell
1 **obtusum** (Lindb.) S.W.Arnell [*Lophozia obtusa*]
(48), 49, 65, 67, (71), 80, 88, 89, 92, 95–98, (99), 104–106, 108.
- 87 **Lophozia** (Dumort.) Dumort.
1 **ventricosa** (Dicks.) Dumort.
1–6, (7), 8–18, (20), 21, 22, 24, (25), 26–28, (29), 30, (32),
34–52, 54, 55, (56), 57–112. H1–40. C.
a var. **ventricosa** [3]
13, 14, 18, 22, 40–42, 44, 45, 47, 48, 50, 58, 60, 64, 72, 78, 79,
81–83, 86, 89, 90, 93, 94, 101, 104, 110, 112. H6, 9, 20, 27,
(33–36).
b var. **silvicola** (H.Buch) E.W.Jones [3]
11, 13, 14, 22, 35, 41–49, 58, 60, 64, 69, 70, 78, 80, 81, 83, 93,
95–97, 99, 110. H9, (33, 36).
- 2 **guttulata** (Lindb. & Arnell) A.Evans [*Lophozia longiflora*]
96, 106.
- 3 **wenzelii** (Nees) Steph.
70, (90), 98, 105, 108.
- 4 **longidens** (Lindb.) Macoun
(48), 65, (66, 70), 87–92, 94–99, 104–106, 108.
- 5 **excisa** (Dicks.) Dumort.
1–6, (7), 9–14, (15), 16, 17, (18, 19), 20, 22, 23, 25–30, (32, 33),
34–37, (38), 39–50, 52, 54, (55), 56–60, (61, 62), 63–70, (71),
72–75, (76), 77–85, (87), 88–99, 101–106, (107, 108), 109, 110,
112. H1, 2, (3, 4), 5, 6, (7), 12, (16), 20, 22, 27, 28, (29), 31, (33),
34–40. C.

- 88 **Heterogemma** (Jørg.) Konstant. & Vilnet
1 **capitata** (Hook.) Konstant. & Vilnet [*Lophozia capitata*]
9, (11), 12, (14), 17, (19), 22, 24, 28, 56, 58.
- 89 **Tritomaria** Schiffn. ex Loeske
1 **exsectiformis** (Breidl.) Schiffn. ex Loeske
1, (2), 3, 4, (5, 7), 8, 9, (10), 11, 12, (13), 14, (15), 16, 17, 22,
(23–25), 26, (27, 30), 34, 35, (36), 37, 39, 40, 42–49, (51), 52,
54, 57, (58, 59), 60, 62–65, (66), 67–70, 72, 73, (74), 75–78, 80,
81, 83, 85–90, (91), 92, (93), 94–112. H1–3, 5, (6–8), 9, (10,
13), 16, (17), 20, 22–29, (30), 33, (34), 35, 36, (37), 39, (40).
2 **exsecta** (Schmidel) Schiffn. ex Loeske
35, (40), 42, 44, 46, 48, 49, 70, 72, 73, (80), 86–88, 96–99, (100),
101, 103–105, 108. H1–3, (16), 27, (35).
3 **quinquedentata** (Huds.) H.Buch
2, (3), 4–6, 35–37, 39, 40, 42–51, (52), 57, 59, 60, 62–70, 72–83,
(84), 85–112. H1–3, 6–8, (9), 16, 20, 27–31, 33–36, (37), 38–40.
- 90 **Schistochilopsis** (N.Kitag.) Konstant.
1 **incisa** (Schrad.) Konstant. [*Lophozia incisa*]
1–6, (9), 11, (13), 14, (15), 16, 17, 22, (25–27), 28, 35–37, 39,
41–52, (55), 57–60, (61), 62–70, (71), 72–75, (76), 77–90, (91),
92–112. H1–10, (11), 13–20, (21), 22–30, (32), 33–36, (37, 38),
39, 40.
2 **opacifolia** (Culm. ex Meyl.) Konstant. [*Lophozia opacifolia*]
49, (69), 78, 86–90, 92, 94, 96–98, 105–108, 110. H1, 6, 8, 16,
20, 27, 29, 35.
- 91 **Saccobasis** H.Buch
1 **polita** (Nees) H.Buch [*Tritomaria polita*]
86–90, 92, 96–98, (99), 104, (105), 106, 108.
- 92 **Diplophyllum** (Dumort.) Dumort.
1 **albicans** (L.) Dumort.
1–25, 27–30, 32–52, (53), 54–112. H1–18, 20–40. C.
2 **taxifolium** (Wahlenb.) Dumort.
(49, 69, 87), 88–90, 92, 94, 96–98, 105–108.
3 **obtusifolium** (Hook.) Dumort.
1, 2, (3), 4, 5, (6), 9, 11, (13, 14, 16), 17, (22), 27, 28, 34–36,
39–50, (61), 67–69, (72), 73–75, (77), 78–82, (85), 86–99, 101,
104, 105, (106, 108, 112). H1, (3, 4, 6), 10, 13, 20, 21, (32), 34,
(37).

- 93 **Douinia** (C.E.O.Jensen) H.Buch
- 1 **ovata** (Dicks.) H.Buch
(1), 2–4, 42–49, (57, 65, 68), 69, 70, (71), 72, 73, 75, 78, 80,
86–90, (91), 92, (94), 95–101, (102), 103–108, (109), 110, 112.
H1–3, 6, 8, 10, (12), 16, 20, (21), 27, (31, 34), 35, 38, (40).
- 94 **Scapania** (Dumort.) Dumort.
- 1 **compacta** (Roth) Dumort.
1–5, (6), 8–11, 13, (14–16), 17, (20), 22, (24–26), 27, 28, (32,
34), 35–37, 39–50, 52, 54, (55), 57, 59, 60, (62), 63–65, (66),
67–70, (71), 72–90, (91), 92, 93, (94), 95–106, (107), 108–112.
H1, (2), 3, (4), 6, 8, 9, 12, 13, 16, 20, 21, 27, 28, 31, 34, 35, (37),
38–40. C.
 - 2 **gymnostomophila** Kaal.
44, 49, 87–90, 92, 97, 98, 104. H1, 26, (34), 35.
 - 3 **calpicola** (Arnell & J.Perss.) Ingham
42, 86–90, 92, 94, 96–98, 104, 106, 111.
 - 4 **cuspiduligera** (Nees) Müll.Frib.
35, 40–42, 44, 45, 47, 49, 57, 64, (65–67, 69), 80, 83, 87–92, 94,
97, 105, 108–110. H27, 28, 34, 35.
 - 5 **scandica** (Arnell & H.Buch) Macvicar
1–5, 14, 34–36, 39–44, 46–52, 57, 59, 60, 62–70, 72, 73, 75–85,
(87), 88–92, 94–99, 102–112. H1, 2, 5, 6, (7), 8, 10, 14, 20,
27–30, 34, 35, (36).
 - 6 **curta** (Mart.) Dumort.
1, 2, (12, 13), 14, (15), 16, 57, 60, 63, 64, 95, 96, 104. H4, 27.
 - 7 **lingulata** H.Buch
4, 42, 44–46, 49, 52, 57, 75, 81, 89, 90, 92, 95–98, 104, 106, 108.
H10, 27, 39.
 - 8 **praetervisa** Meyl.
(64), 88, 91, 95.
 - 9 **parvifolia** Warnst.
87, 88, (97), 98.
 - 10 **umbrosa** (Schrad.) Dumort.
(1), 2–5, (13), 14, (16, 34), 35, (37), 39, 42–50, 57–60, 62–70,
72, 73, (74), 75–84, (85), 86–92, (93), 94–112. H1–3, 6–10, 12,
13, 16, 20, 21, 25–30, 33–36, (37–39), 40.
 - 11 **nemorea** (L.) Grolle
1–7, (8), 9–17, (18, 19), 20–22, (23), 24, (25–27), 30, 31, (32),

- 33–37, (38), 39–52, 54, 55, (56), 57–70, (71), 72, 73, (74), 75, 76, (77), 78–81, 83–90, (91), 92, 93, (94), 95–112. H1–4, (5), 6–10, 12, 13, 16, 19–21, 25–36, (37), 38–40. (C).
- 12 **irrigua** (Nees) Nees
1–9, (10), 11–22, (23–27), 28, (30, 33), 34–52, 54, (55), 56–112. H1–10, (11), 12, 15–17, 20, (21, 22), 23–36, (37), 38–40.
- 13 **degenii** Schiffn. ex Müll.Frib.
65, 66, 70, 87–89, 92, 94–98, 104, 105, (107), 108, 112.
- 14 **paludicola** Loeske & Müll.Frib.
(2), 35, 40–50, (64), 79, 80, 90.
- 15 **undulata** (L.) Dumort.
1–6, (7), 8, 9, (10), 11–18, (19, 20), 21–23, (24, 27, 32), 34–37, (38), 39–52, 54, 55, 57–60, 62–112. H1–16, 18, 20, 21, (24), 25–40. (C).
- 16 **subalpina** (Nees ex Lindenb.) Dumort.
(2), 3–5, 42–44, 46–49, (50, 51), 60, (64), 65, (66), 67–70, 72–81, 83, (85), 86–99, 101, 102, (103), 104–110, (111), 112. H(1, 6, 7), 16, (20, 27), 34, 35, (36, 38–40).
- 17 **uliginosa** (Lindenb.) Dumort.
(36), 46, 48, 49, 60, (62, 64), 69, 70, 73, 86–90, 92, 94, 96–98, (99), 103–108, 112.
- 18 **paludosa** (Müll.Frib.) Müll.Frib.
49, 70, 88–90, 92, 94, 96–98, 105, 106, 112.
- 19 **aequiloba** (Schwägr.) Dumort.
35, 42, 44, 48, 49, 64, (65, 66), 68, 69, (70), 72, 77–80, 83, (85), 86–92, 94, 96–101, 104–108, 110. H1, 7, 28, 29, 34, 35, 39.
- 20 **aspera** M.Bernet & Bernet
3, 6, 8–14, 17, (20), 23, (24, 32), 33–37, 39–45, 47–53, (55), 57, 59, 60, 62–70, (71), 72, (76), 78–83, 86–90, 92, 94, (95), 96–112. H1–3, 7–11, (13), 14–18, 22–30, 33–35, (36), 39, 40.
- 21 **gracilis** Lindb.
1–5, 9, 11, 14, 16, 34, 35, (36, 39), 40–52, 57–60, 62–76, (77), 78–81, (82), 83–90, (91), 92–112. H1–18, 20, 21, 23, 25–31, 33–40. C.
- 22 **ornithopoides** (With.) Waddell [*Scapania ornithopodioides*]
49, 69, (70), 87, 88, 92, 94, 96–98, (99), 100, 102, (103), 104–108, 110, 112. H1, 2, 16, 27, 35.
- 23 **nimbosa** Taylor ex Lehm.

(49), 87, 88, 92, 94, 96–98, 102–108, 110. H1, 27, (35).

95 *Mylia* Gray

1 *taylorii* (Hook.) Gray

2–4, (36), 39, (42), 43, 44, 46–50, 57–60, (61), 62–70, (71), 72–81, (82), 83, (84, 85), 86–88, 90, (91), 92–112. H1–4, 6–10, 12, 13, (14), 16, (17, 18), 19, 20, (21), 25–30, (31), 33–37, (38), 39, 40.

2 *anomala* (Hook.) Gray

(1), 2–4, (5, 6), 8–14, (15), 16, 17, 22, (24, 25), 27, 28, 35, 39–52, (55), 57–70, (71), 72–112. H1–4, (7, 8), 9, 10, (11, 13), 14, 15, 17–20, 22–28, (29–31), 32–40.

MOSESSES (BRYOPHYTA)

1 *Sphagnum* L.

1 *strictum* Sull.

48, 49, (69), 73, 75, (86), 87, 88, (89), 92, 96–98, 100, 101, 103–108, 110, 111. H1, (2), 3, 16, (27), 28, 34, 35, (39, 40).

2 *compactum* DC.

1–5, (6), 8, 9, (10), 11–15, (16), 17, 18, (19), 20, (21), 22, (24, 26), 27, 28, 34–36, 40, 41, (42), 43–54, 57–60, (61), 62–70, (71), 72, 73, (74), 75–90, (91), 92–112. H1–5, (6), 7–10, (12), 13–18, 20, (21), 22, 24–31, 33–35, (36), 37–40.

3 *austinii* Sull.

3, 4, 46, 48, 49, 66, 67, (69), 70, 73–75, 77, 78, (79), 80, 81, 83, 88, 89, (90), 92–98, 102–105, 107–112. H1, 2, 9, 10, 14–20, 22–28, (29), 30, 32, 33, (35), 36, 39, 40.

4 *affine* Renaud & Cardot

48, 49, 69, 70, (72), 73–75, (86), 87, 88, 92, 95–100, 102, 104–107. H1, 2, 16, (37).

5 *papillosum* Lindb.

1–6, 8–17, 20, 22, (24, 26), 27, 28, (29), 34–55, 57–112. H1–40.

6 *palustre* L.

a var. *palustre*

1–6, (7), 8–32, 34–50, (51), 52–112. H1–40. C.

b var. *centrale* (C.E.O.Jensen) A.Eddy

29, 30, 48, 49, 55, (60, 62, 71), 88, 89, 92, 97.

- 7 **medium** Limpr.²
8, 9, 11, 13, (17, 22), 24, 27, 28, 41, 46, 49, 50, 57, 63–67, (68), 71,
73, 74, 79, 81, 83, 84, 89, (98, 99), 108, 112. H1, 18–20, 24, 27.
- 8 **divinum** Flatberg & K.Hassel
(49), 51, 57, 67, 81, 87. H9, 18–20, 22, 27.
- 9 **squarrosus** Crome
1–6, 8–15, (16), 17–22, (23), 24–32, 34–112. H1–3, (4), 5, 6,
(7), 9, 10, 12–18, (19), 20–25, 27, (28), 29–40.
- 10 **teres** (Schimp.) Ångstr. ex Hartm.
3–5, 9, 11, (13, 14, 17, 25), 27, 28, (29), 35, (38), 39–50, 55,
57–59, 62–83, 85–90, (91), 92–98, (99), 100–112. H1, 2, 6, 7,
9, 15, 18, 20, 22, 23, 25, 26, (27), 28, 30–35, 37–39, (40).
- 11 **fimbriatum** Wilson
1–6, 8–31, 34–104, 106–112. H1, 2, 4–6, (7), 8–10, (13), 14,
16–20, (21), 22–32, (33), 35–40.
- 12 **girgensohnii** Russow
3, (5), 30, (38), 39, 43, 44, 46–51, 53, 56–83, (84), 85–112. H1,
2, (3), 6, 18, 20, 28–30, 35, 36, (37, 38), 39, 40.
- 13 **russowii** Warnst.
(5), 13, (17), 22, (26), 27, 29, 30, 34, 39–50, 54, 57–60, 62–70,
(71), 72, 73, (74), 75–96, 98–101, 104–112. H2, (3), 6–8, 10,
12, 13, 18, 20, (21, 28), 29, 30, (33, 34), 35, 36, (37–40).
- 14 **quinquefarium** (Lindb. ex Braithw.) Warnst.
2–5, 35, 37, 39–50, 57–60, 62–70, 72–92, (93), 94–112. H1–3,
5–10, 12, 14–16, 18, 20, (21), 26–29, (30), 33–36, (37), 38–40.
- 15 **warnstorffii** Russow
42, 43, 46–50, 57, 60, (62), 64–67, 69, (70), 72, 73, (74), 75–81,
83, 87–90, 92–102, 104–110, 112. H7, 9, 10, (14), 16, 25, 27,
28, 32, 34, 35, 39, (40).
- 16 **capillifolium** (Ehrh.) Hedw. [*Sphagnum capillifolium* subsp.
capillifolium]
3, 4, 11, 13–15, 34, 35, 39, 40, 43–50, 54–59, 62–70, 72, 75–78,
80, 83, 85, 87, 92, 96, 100, 104–106, 108–111. H1–4, 6–9, 11,
17, 20–22, 26–30, 32, 35, 36, 40.

2 *Sphagnum medium* and *S. divinum* are segregates from *S. magellanicum* s.lat. The distribution of the traditionally defined *S. magellanicum* s.lat. is: 2, 3, 8, 9, 11, (12), 13–17, 22, 24, 27, 28, 39, 40, 44–51, 57, (58), 59, 60, 62–70, 72–84, 86–112. H1–4, 7–10, (11), 14–20, 22–30, (31), 32–40.

- 17 **rubellum** Wilson [*Sphagnum capillifolium* subsp. *rubellum*]
1–6, 8–20, (21), 22, 24, 25, (26), 27, 28, 30, (32, 34), 35–112.
H1–20, 22–40.
- 18 **fuscum** (Schimp.) H.Klinggr. s.str.³
(13), 58, (65), 66–70, 72, 74, 76–81, 83, 87–90, 92–98, 104,
(105), 106, 108–112. H18, (22), 40.
- 19 **beothuk** R.E.Andrus
9, 46, 48, 66, (69, 70, 73), 74, 87, 88, (89), 97, 98, 102, 104, 105,
107–110. H2, 9, (10), 14–16, (17), 18, (19), 22, (23), 24, 25,
(27), 28–30, (32), 33, 34, 36, 39.
- 20 **subnitens** Russow & Warnst.
a subsp. **subnitens** [*Sphagnum subnitens* var. *subnitens*]
1–19, (20, 21), 22–32, 34–112. H1–40. C.
b subsp. **ferrugineum** Flatberg [*Sphagnum subnitens* var.
ferrugineum]
48, 60, 75, 86, 104, 105. H1, 2, 9, 15–18, 25–28, 33–35, 39.
- 21 **skyense** Flatberg
46, 97, 102–104, 110. H6–8, 16, 26, 27, 35.
- 22 **molle** Sull.
(1), 3, (5, 8), 9, 11–14, 17, 22, (26), 28, (34), 44–50, 55, (59, 62,
66), 67–70, 72, 73, 75, 77, 79, (80), 83–86, (87), 88, (91), 92,
94, 96–98, (99), 100–110. H1, 2, (3, 15), 16, 18–20, 25, 27–29,
(30), 33–36, 38–40.
- 23 **subsecundum** Nees
3–5, 11, (12, 17), 27, 28, 35, 40, 42, 43, 45–50, 63, 67, 69, 70,
73–79, 81, (86), 87, 88, (89), 90, 95–97, (98), 99, (103), 104,
(106), 107, 108, 110. H1, 10, 16, 18, 25, 27, 34, 35.
- 24 **inundatum** Russow
1–9, 11–14, 16–18, (19–21), 22–28, 30, 34–55, 57–81, (82),
83, 85–90, (91), 92, 94–112. H1–4, 6–12, 15–18, (19), 20–22,
24–36, (37), 38–40.
- 25 **auriculatum** Schimp. [*Sphagnum denticulatum*]
1–25, 27–29, 34–112. H1–10, (11), 12–40. C.
- 26 **contortum** Schultz
3–5, 9, 11, (13, 14, 16), 27, 28, 40–52, (58, 59), 60, (61), 62,

3 The distribution of *Sphagnum fuscum* s.lat., including *S. beothuk*, is: 9, (13), 46, 48, 58, (60, 65), 66–70, 72, (73) 74, 76–81, 83, (86), 88–90, (91), 92–98, 102, (103), 104–112. H2, 9, 10, 14–19, 22–30, 32–34, 36, 39, 40.

- 64–67, 69, 70, (71), 72–81, 83, 85, 88–90, 92–100, (101), 102–112.
H1–3, 6, 7, 9, 12, 15–18, (20), 21–23, 25–31, 33–35, (36, 37),
38, 39, (40).
- 27 **platyphyllum** (Lindb. ex Braithw.) Sull. ex Warnst.
35, 40, 42, 44–46, 48–50, 52, (60), 65, 69, 70, 72–75, 78, (87),
88, 89, 92, 95–98, 101, 103, 104, 107, 108, 110, 112. H1, 3, 9,
15, 16, 27, 31, (33), 34.
- 28 **tenellum** (Brid.) Bory
1–5, 8, 9, 11–14, (15, 16), 17, (18, 19), 22, 24, 27, 28, (29, 34),
35, 36, (37, 39), 40–50, 52, 54, (57), 58–60, (61), 62–81, 83, 84,
(85), 86–112. H1–10, (11), 12–20, 22–40.
- 29 **cuspidatum** Ehrh. ex Hoffm.
1–6, 8–19, (20, 21), 22, 24, (25), 27, 28, 30, 35, 36, (37), 38–112.
H1–10, (11, 12), 13–40.
- 30 **majus** (Russow) C.E.O.Jensen
67, 88, (90), 95–98, 107–109. H15.
- 31 **balticum** (Russow) C.E.O.Jensen
46, (58, 59), 63, 67, (72), 92, 96.
- 32 **pulchrum** (Lindb. ex Braithw.) Warnst.
9, 11, 40, 46, 47, 49, 50, (58, 60, 67), 69, 70, (71), 73, 74, 77,
(97), 98, 102, 104, 107, 108. H1, 2, 15–19, 23, 25, 27, 28, 33,
(35), 36, (38, 39), 40.
- 33 **fallax** (H.Klinggr.) H.Klinggr.
1–6, 8–22, 24–31, (32), 34–50, (51), 52–112. H1–4, 6–40.
- 34 **flexuosum** Dozy & Molk.
2–6, 8, 9, 11–17, 20–22, 24, 25, 27, 30, 34, 35, 38–49, (50),
51, 57–60, (61), 62–64, (65), 66, 67, 69–77, 79–81, 83, 85, 86,
88–90, 92, 94–97, 100–105, 107–112. H1–3, 5, 9, 10, 16, 20,
25, 27, 40.
- 35 **angustifolium** (Russow) C.E.O.Jensen
(4), 5, 9, 11, 14, 16, 22, 25, 39–50, 55, 57–60, 63, 64, (65), 66,
67, 69, 70, 72, 75–81, 83, 86–98, 100–102, 104–111. H1–3, 6,
9, 10, 15, 16, 18, 23, 25–30, 32–34, 39, 40.
- 36 **obtusum** Warnst.
(59, 60).
- 37 **riparium** Ångstr.
22, 52, (58, 60, 61), 64, 67, (69), 70, 75, 77, 80, 88, 90, 92, 94,
(95), 96, 97, 104–109, 112.

- 38 **lindbergii** Schimp.
88, 90, 92, 94, 96, 97, 105, 106, 108, 112.
- 2 **Andreaea** Hedw.
- 1 **hookeri** Schimp. [*Andreaea alpina*]
42, 44, 46, 48, 49, (64), 65, 66, 68–70, 72, 73, (74), 75, 77, 78,
86–90, 92, 94, 96–98, (99), 100–108, 110, 112. H1–3, 7, 8, 16,
20, (21), 27, (31), 35, 38–40.
- 2 **rupestris** Hedw.
a var. **rupestris**
(1), 3, 4, 35, 40–50, 57, (59), 60, 62–90, (91), 92–100, 102–112.
H1–4, (6), 7, 8, 11, 13, 16, 20, 21, 27, 28, (29, 30), 31, 34–36,
(37), 38–40.
b var. **papillosa** (Lindb.) Podp.
(48), 49, (70).
- 3 **alpestris** (Thed.) Schimp.
90, 92, 94, (96), 97, 106.
- 4 **mutabilis** Hook.f. & Wilson
46, 48, 49, (60, 65, 68), 69, (70), 72, 73, 75, 77, 78, (85, 87, 88),
89, 90, 92, 94, 96–98, 103–106.
- 5 **sinuosa** B.M.Murray
92, 94, 97, 105, 106.
- 6 **rothii** F.Weber & D.Mohr
a subsp. **rothii**
1, 2, (3), 40, (41), 42, 45, 46, 49, 60, 63, (64), 65, (69, 71, 73), 76,
80, (82, 87, 88, 90), 92–94, 97, 103–105, (106), 107. H1, (2), 3,
4, 6–9, 12, (13), 16, 20, 21, 26–31, 34, 35, (36, 38), 39, 40.
b subsp. **falcata** (Schimp.) Lindb.
1–5, (34), 35, 36, (37), 41–50, 52, 57, 58, 60, (62), 63–81, (82),
83–92, (94, 95), 96–100, 102–108, 110, (111), 112. H(1), 2, (3,
5, 6), 7, 9, 10, 12, 13, 16, 20, 21, 25–28, (29, 30), 31, 33–36, 38,
39.
- 7 **frigida** Huebener
(65), 70, 92, 94, 96.
- 8 **megistospora** B.M.Murray
45, 46, (48, 66), 70, 72, (73, 74), 75, (78), 87, (88), 92, (96), 97,
98, (99, 100), 104–106, 108, 110. H1, 3, (4), 6, 16, 27, 34, (38).
- 9 **blyttii** Schimp.
92, 94, 96, 97, 105, 106.

- 10 **nivalis** Hook.
(88, 90), 92, 94, 96–98, 105–107.
- 3 **Oedipodium** Schwägr.
 - 1 **griffithianum** (Dicks.) Schwägr.
(42), 44, 46–50, (64), 65, (68), 69, 70, 72, (73), 75, (78, 80, 86),
87, 88, (89), 90, (91), 92, 96–98, (99), 100, 103, (104), 105.
H(1), 20, 27, 35.
- 4 **Tetraphis** Hedw.
 - 1 **pellucida** Hedw.
1–108, 110. H1–8, 10–12, (13), 15, 16, (18), 20, 21, 23, 25–31,
33, (34), 35, 36, (37), 38–40.
- 5 **Tetrodontium** Schwägr.
 - 1 **brownianum** (Dicks.) Schwägr.
3, (4), 14, 16, 34, 35, (36), 39–42, 44, 46–49, 57–60, 62–72,
(73), 75–78, 80, 81, 83–88, (90, 91), 96–101, 103–108, 110. H1,
2, (8), 16, 20, (21), 27, 29, 33, 35, 36, (39), 40.
 - 2 **repandum** (Funck) Schwägr.
(14, 62).
- 6 **Atrichum** P.Beauv.
 - 1 **crispum** (James) Sull.
3–5, 17, 39–50, 57–60, 63–65, (69), 70, (71). H20, 25, 29.
 - 2 **tenellum** (Röhl.) Bruch & Schimp.
1–3, (7), 11, 14–17, 42, 43, 45, 46, 49, 57–59, 63, 64, 70, 73,
(75), 76, 78, 81, 83, (85), 86–88, (89), 90, 92, 95–98, 103–105,
(106), 110. H1, 3, 9, 16, 27, 28, 35, 38.
 - 3 **undulatum** (Hedw.) P.Beauv. [*Atrichum undulatum* var.
undulatum]
1–112, H1–40. C.
 - 4 **flavisetum** Mitt. [*Atrichum undulatum* var. *gracilisetum*]
(17, 20, 37, 40, 59).
 - 5 **angustatum** (Brid.) Bruch & Schimp.
13–16, (17, 19), 33, (37, 44, 87). H(36, 38).
- 7 **Oligotrichum** DC.
 - 1 **hercynicum** (Hedw.) DC.
(1), 2–5, 39–50, 57–60, 62–83, (85), 86–112. H1–10, 13, 14,
16, 20, 21, 27, 28, (29), 30, (31), 33–36, 38–40.
- 8 **Polytrichastrum** G.L.Sm.
 - 1 **alpinum** (Hedw.) G.L.Sm.

- 2–4, (34), 35, 36, (37), 39–50, 57, (59), 60, 62, (63), 64–83, (84), 85–112. H1–4, 6–8, 11–13, 16, 20, 21, 27–31, 33–40.
- 2 **sexangulare** (Brid.) G.L.Sm.
88, (89), 90, 92, 94, 96, 97, 105, 106.
- 9 **Pogonatum** P.Beauv.
- 1 **nanum** (Hedw.) P.Beauv.
1–5, (6, 7), 8–10, (11, 12), 13–17, (18, 19), 20, (21), 22, 23, (24–26), 27, (29, 30, 32, 33), 34–37, (38, 39), 40–49, (50, 51), 52, (55, 57–64, 66), 67, 68, (69), 70, (71), 72, (73), 75, (76), 78, 79, 81, 83, (84–87), 88–90, (91), 92, 94–96, (97), 98, (101), 103, 104, 106, 108–110, 112. H(4, 5), 8, (10, 12), 20, (21, 22, 25), 27, (28), 31, (32, 33, 36–39), 40. C.
- 2 **aloides** (Hedw.) P.Beauv.
1–6, (7), 8–22, (23), 24–28, (29), 30, (32, 33), 34–52, (53), 54–112. H1–22, 24–40. C.
- 3 **urnigerum** (Hedw.) P.Beauv.
1–6, (7), 8, 9, (10, 11), 12, 13, (14), 15–17, 20, (21), 22, 24, (26), 27–29, (30, 32, 33), 34–37, (38), 39–52, (53, 54), 55, 57–112. H1–18, 20–22, 25–40. (C).
- 10 **Polytrichum** Hedw.
- 1 **longisetum** Sw. ex Brid. [*Polytrichastrum longisetum*]
(1), 3, (5–7), 8, 9, (10), 11–14, (15, 16), 17–29, (30), 31, (32, 33), 34–44, 46, 47, 50, 51, (53), 54, (55, 56), 57–70, 72, 73, (74), 75–78, (79), 81–84, 86, 87, (88, 89), 90, (91), 92, 94–98, (103), 105–108, (110–112). H(1–3, 7, 8, 12–14), 15–20, 22–28, (29, 30, 32, 33, 36–40).
- 2 **formosum** Hedw. [*Polytrichastrum formosum*]
1–112, H1–40. C.
- 3 **commune** Hedw. [*Polytrichum commune* var. *commune*]
1–6, (7), 8–112. H1–40. C.
- 4 **perigoniale** Michx. [*Polytrichum commune* var. *perigoniale*]
2, (3, 12), 13, 17, (18), 22, 27, (32), 35, (36–39), 41, 43–49, (51, 54), 56, 57, (59), 62, (63), 70, 72, 76, (85, 88–90), 92, 95, 97, 98, 103–108, 110, (111). H7, 8, 12, 20, 21, 23, 28.
- 5 **piliferum** Hedw.
1–6, (7), 8–112. H1–13, (14), 16, (17, 19), 20–22, 24–40. C.
- 6 **juniperinum** Hedw.
1–112, H1–16, 18–40. C.

- 7 **strictum** Menzies ex Brid.
2–5, (6), 11–14, 17, 22, 25, 27, 28, 35, 39–52, 54, 57, 58, (59),
60–84, 86–92, 94–112. H1, (6), 7, (8), 9, 10, 13–20, (21), 22–25,
27–40.
- 11 **Buxbaumia** Hedw.
 - 1 **aphylla** Hedw.
(17, 22, 23, 27, 30), 37, (40), 43, (47, 48, 57–59, 63, 64, 66–68,
72, 73), 77, (78, 79), 80, (81, 82), 83, 84, (85–88), 89, (90, 91),
92, 95, 96, (98, 99). H(1).
 - 2 **viridis** (Moug. ex DC.) Brid. ex Moug. & Nestl.
87, 89, (90), 92, 94–98, 106.
- 12 **Diphyscium** D.Mohr
 - 1 **foliosum** (Hedw.) D.Mohr
1–5, 14, (23), 35, 36, (39), 40–50, 57, 58, (59), 60, (62–64),
65–67, (68), 69, 70, (71), 72–81, 83, 86–92, (93), 94–108, 110,
112. H1, (2), 3, 6–8, 12, 13, 16, 20, 27–29, 31, 33, (34), 35, (36),
37–40.
- 13 **Timmia** Hedw.
 - 1 **austriaca** Hedw.
88, 89, (90).
 - 2 **norvegica** J.E.Zetterst.
(87), 88, (90), 96–98, 104. H28, 29.
 - 3 **megapolitana** Hedw.
27.
- 14 **Encalypta** Hedw.
 - 1 **streptocarpa** Hedw.
1–17, 20, 22–24, 26, 28–73, (74), 75–98, (99), 100–110, (111).
H1–31, 33–40.
 - 2 **alpina** Sm.
(49, 64), 88–90, (96), 97, 98, 104, 108. H28.
 - 3 **rhaptocarpa** Schwägr.
(49), 64, 65, (66), 68, 69, 82, (85), 87–90, 92, 94, (96), 97, (98),
104, 105, (107), 108–110, 112. H(9, 27, 28), 29, 40.
 - 4 **vulgaris** Hedw.
1, (2), 3, (4), 5–12, (13–16), 17, (19), 20–24, (25), 26, 28–30,
(31), 32–44, (45), 46, 47, 49–57, (59), 60, (61), 62–70, 75, (77,
79), 80–83, (84–86), 87–89, (90, 91), 92, 94, 95, (96, 100, 106),
107, 108, 110. H(2), 4, 5, (6), 7, 9, 11, 13, (14, 15, 18, 19, 21),

- 22, (23), 24, 25, (27, 32, 33, 35, 37, 39, 40).
- 5 **pilifera** Funck
39, 47, 51, 57, 65.
- 6 **brevicolla** (Bruch & Schimp.) Ångstr.
(90).
- 7 **ciliata** Hedw.
35, (36), 42–44, 48, 49, (59), 64–66, 68, (69), 70, (72, 75, 78,
80), 82, 83, (85), 86–90, (91), 92, 94–98, (99, 101), 104, 105,
(106), 107, (108). H2, 8, 39, (40).
- 15 **Funaria** Schwägr.
- 1 **hygrometrica** Hedw.
1–112, H1–40. C.
- 16 **Entosthodon** Schwägr.
- 1 **muhlenbergii** (Turner) Fife
(3), 6, (9, 34), 35, (36), 39–42, 44, 47, (48), 49–51, 55, 57, 60,
(62), 64, 65, 69, 88. H(4), 5.
- 2 **pulchellus** (H.Philib.) Brugués
(2, 3), 6, 9, (13), 34, 41, 45, 47, 49, 51, 52, (60), 94. H7.
- 3 **attenuatus** (Dicks.) Bryhn
1, 2, (3), 4, (5), 35, 42–50, 52, (58–60, 62–65), 66, (67, 68),
69–71, (72, 73), 74, 75, 77, 79, (83, 86–88, 91), 96–106, (107),
108–112. H1–3, (4–6), 7–9, 12, 16, 20, (21, 25), 26–29, 31,
33–35, (36), 38–40. C.
- 4 **fascicularis** (Hedw.) Müll.Hal.
1–5, (6), 7–20, 22, (23), 24–27, (31, 32), 33–37, (38), 39–47,
(48), 49–52, (55), 56, 57, (58, 59), 60, (61, 62), 64, (66, 67), 69,
(71–73), 74, (75, 76, 81, 85, 90, 91). H(1), 2–6, 8, 11, 12, 17,
(19), 20, (27, 36), 38, (39, 40). C.
- 5 **mouretii** (Corb.) Jelenc
(1, 12, 32–34), 45, 46, (48).
- 6 **obtusus** (Hedw.) Lindb.
1–6, (7), 9–11, (12, 13), 14, (15), 16, 17, (20), 22, (27), 34–37,
40–52, 57, (58–61), 62–79, (80), 81, 83, (85), 86, 88–90, (91),
92, 93, 95–112. H1–5, (6), 7–10, (12), 13, (14, 15), 16, 20, (21),
25–29, (30, 31), 32–40. C.
- 17 **Physcomitrium** (Brid.) Brid.
- 1 **pyriforme** (Hedw.) Brid.
1–37, (38), 39–75, (76), 79–85, 88, (89–91), 93, (94), 97, 98,

- (99), 100–104, 106, 107, (108, 109), 110–112. H1–6, 8–10, (11), 12, 13, 16, (18), 19, 20, (21), 22, (23), 24, 25, 27, (28), 29, (30), 32, 33, (34), 35, 36, (37), 38–40. C.
- 2 **eurystomum** Sendtn.
20, 28.
- 3 **sphaericum** (C.Ludw.) Brid.
(14, 17, 39), 42, 44, 57–59, 63, 64, (76), 83, (85), 86, 99. H39.
- 4 **readeri** Müll.Hal. [*Ephemerella readeri*]
4, 57, 64.
- 5 **patens** (Hedw.) Mitt. [*Aphanorrhagma patens*]
1–11, (12), 13–40, (41), 42, 44–48, 50–55, 57–61, (62), 63–65, (66), 67, (68), 73, 76, 78, (79), 80, 82, 83, (84), 85, 99, 101. H2, (4), 5, 6, 8, 9, 11, 12, (14), 15, (17), 18, (21), 22–27, 29, 30, 32, 34, 35, 37–39.
- 18 **Discelium** Brid.
1 **nudum** (Dicks.) Brid.
2, (3), 14, 15, (32), 34, (37), 39, 40, 42, 43, 46, 47, 49, 50, 57–60, 62–65, (66, 67, 69, 70, 75), 77, (82, 88), 99, (106). H29, 30, 33.
- 19 **Catoscopium** Brid.
1 **nigritum** (Hedw.) Brid.
52, 59, (60, 64, 65), 66, 68, (82), 85, 88, 89, (90, 92), 94, 95, (98), 105, (106), 108–110, 112. H16, 27, (34), 35, (39, 40).
- 20 **Distichium** Bruch & Schimp.
1 **capillaceum** (Hedw.) Bruch & Schimp.
1, 2, (35), 42, 44, 48, 49, (50), 57, 59, (60), 62–70, 72, (73), 75, (77), 80, 82, 83, (85), 86–98, (99, 100), 101–112. H1, (9), 12, 16, 20, 27–29, 33–35, (39, 40).
2 **inclinatum** (Hedw.) Bruch & Schimp.
1, 6, 41, 42, 44–46, 50, 52, 56–60, 62–64, (65, 66), 68, (69, 70, 72, 75), 82, (83), 85, 87–89, (90), 93, 94, 97, 98, 101–105, 107–112. H2, 16, 26–29, 34, 35, 39, 40.
- 21 **Flexitrichum** Ignatov & Fedosov
1 **flexicaule** (Schwägr.) Ignatov & Fedosov [*Ditrichum flexicaule*]
6, 8–13, (14), 17, 26, 32, 33, (35), 36, 39–42, (44), 47, (48), 49–52, (55), 56, 57, 59, 60, 62–65, (66), 69, 76, 82, 88–90, 92, 94, (98), 103, 108. H(10), 19, (27, 34, 39).
2 **gracile** (Mitt.) Ignatov & Fedosov [*Ditrichum gracile*]
1, 3, 6, 8–14, 16, 17, 20, 22–24, (25), 26, 28, 29, 32–37, 39–47,

- (48), 49–54, 56, 57, 59, 60, 62, 64–70, 72, 73, 75, 77, 78, 80–83, 87–94, 96–98, 100–106, 108–112. H1, 7–9, 11, 13–19, (21), 22–31, 33–36, 38–40. C.
- 22 **Hymenoloma** Dusén
- 1 **crispulum** (Hedw.) Ochyra [*Dicranoweisia crispula*]
49, 57, (65), 69, 70, (72, 73, 75), 86–90, (91), 92, 96–98, (99, 103), 104–106, (107), 108.
- 23 **Archidium** Brid.
- 1 **alternifolium** (Hedw.) Mitt.
1–17, (18), 20, (21), 22, 23, (24, 29, 30, 33, 34), 35–37, (38), 39–49, 51, 52, (54), 55, 57–60, (61), 62–70, (71), 72–79, 81–90, (91), 92, 93, 95–100, (101), 102–112. H1–3, 5, 8, 9, 12, (13), 16, 20, (21), 25–29, (30), 31, 34, 35, 38–40. C.
- 24 **Micromitrium** Austin
- 1 **tenerum** (Bruch & Schimp.) Crosby
4, 13, 14, (16, 17), 45, 52.
- 25 **Dicranodontium** Bruch & Schimp.
- 1 **uncinatum** (Harv.) A.Jaeger
(69, 70, 73), 75, (86), 87, (88, 92, 94), 96–98, (99), 102, 104–108, 110. H1, 2, 16, (20), 27.
- 2 **asperulum** (Mitt.) Broth.
49, 67, 69, (80, 86), 87, (88, 90), 92, 94, 96–98, (99), 102, 104–108. H29, 30, 33.
- 3 **denudatum** (Brid.) E.Britton
2, (3), 11, (13), 14, 34, 39, 41–50, 57–60, 62–67, 69, 70, 72, 73, 75–84, 86–90, (91), 92, 96–108, 110, 112. H1–3, (6, 14), 16, (20, 21), 27, 28, 30, 33, (34), 35, 36, (39, 40).
- 4 **subporodictyon** Broth. [*Campylopus subporodictyon*]
97, 104, 105.
- 26 **Campylopus** Brid.
- 1 **subulatus** Schimp. ex Milde
2, 4, (11, 14), 17, (36), 40–49, 64, 66, (69), 70, 72, 73, 75, (88, 89), 90, (91), 94, 95, (96), 97, 98, (99), 101–105, 108, 110, (111). H(2), 3, 14, 20, 27, (29), 31, (34), 35, 36, 39, 40. (C).
- 2 **schimperi** Milde
(86, 87), 88, (89, 90), 96–98, (99), 100, 103–106, 108, 110, (111), 112. H(1, 35).
- 3 **gracilis** (Mitt.) A.Jaeger

- 46–49, (69), 70, 73, (86), 87, 88, (90), 96–98, (99), 100, (101), 103–108, 110, 111. H1–3, (4), 7, (8), 16, (20), 27, 28, (30, 34), 35, (36).
- 4 **fragilis** (Brid.) Bruch & Schimp.
1–6, 9–11, 13, 14, (15, 16, 23), 25, 26, (27), 28, 29, 31, (33), 34–37, 40–52, 57–60, 62, 64–70, (71), 72–75, 78–83, 85–92, 94–112. H1–3, (4, 5), 6–11, 13, 15, 16, 18, 20, 23, 25, 27–31, 33–36, (37), 38–40. C.
- 5 **pyriformis** (Schultz) Brid.
1–50, (51), 52–70, (71), 72–112. H1–13, (14), 15–30, (31), 32–40. C.
- 6 **flexuosus** (Hedw.) Brid.
1–112, H1–40. C.
- 7 **setifolius** Wilson
46, 48, 49, (69), 70, 73, 97, 98, 100, 102–105, 108, 110. H1–3, 7, (15), 16, (20), 27, 28, 31, 34, 35, 38.
- 8 **shawii** Wilson
(97), 103–105, 108, 110. H1, (2), 3, (27).
- 9 **atrovirens** De Not. [*Campylopus atrovirens* var. *atrovirens*]
1–4, 40–50, 52, (57), 60, (62), 64–66, (67), 69–79, (85), 86–90, 92–112. H1–3, (4), 6–9, 12, (14), 15–17, 20, (21, 24), 25–29, (30), 31, 33–40.
- 10 **pilifer** Brid.
1–3, 45, 48, 49, 102, (104). H1–3, 16, 20, 27. C.
- 11 **introflexus** (Hedw.) Brid.
1–112, H1–40. C.
- 12 **brevipilus** Bruch & Schimp.
1–4, (5–7), 8–14, (15), 17, 22, (24, 25, 27, 28, 34), 41, 45, 46, 48, 49, 52, (58, 60, 61), 62, (67, 69), 70, (71–73, 81, 87), 88, (89–92), 93, 96–98, 100–112. H1–3, (5, 7, 8), 9, (10, 12, 15), 16–20, (21), 25–29, (31), 33–35, (38), 39. C.
- 27 **Leucobryum** Hampe
- 1 **glaucum** (Hedw.) Ångstr.
1–6, (7), 8–30, (32), 34–52, (53), 54, 55, 57–70, (71), 72–84, 86–112. H1–4, (5), 6–10, (11), 12–20, 22–40. (C).
- 2 **juniperoideum** (Brid.) Müll.Hal.
1–25, 27, 28, 30, 34, 35, 37, 39–49, 55, 57, 58, 60, 63–65, 69, 70, 72, 86, 97–99, 101–103, 105. H1–3, 6, 11, 13, 16, 20, 38. C.

- 28 **Amphidium** Schimp.
- 1 **lapponicum** (Hedw.) Schimp.
42–44, 46–49, (64), 65, (66), 68–70, 72, (73), 75, 78, 86–90,
92, 94, 96–98, (99), 103–106, (107), 108. H1, 27.
 - 2 **mougeotii** (Bruch & Schimp.) Schimp.
1–5, 35, 36, (37), 40–50, 52, 57–60, 62–112. H1–4, 6–11, (13,
14), 16, 20, (21, 26), 27–40.
- 29 **Dichodontium** Schimp.
- 1 **pellucidum** (Hedw.) Schimp.
1–6, 8–17, 21, 22, (27, 30), 32, (33), 34–54, (55), 56–112. H1–16,
(18), 20–22, 24–40.
 - 2 **flavescens** (Dicks.) Lindb.
1, 2, 35, (37, 40), 41, 42, 44, 46–48, (49, 50, 52), 57, (58, 59),
60, 62, 64, 65, 67–69, (70), 71–73, 75, 77, 78, 80, 85–92, 94–99,
101, 102, 104–106, 108. H1, 3, 6, 8, 10, 11, 16, 18, 20, (21),
27–29, 31, 35, 39, 40.
 - 3 **palustre** (Dicks.) M.Stech
1–5, (6, 14), 34–37, 39–52, 57–60, 62–112. H1–8, (9), 10, 12,
(13), 14–16, 18, 20, 21, 25–40.
- 30 **Aongstroemia** Schimp.
- 1 **longipes** (Sommerf.) Bruch & Schimp.
88, 89, 95, 96, 98, 99, 101, 102, 106–108. H27.
- 31 **Dicranella** (Limpr.) Loeske
- 1 **schreberiana** (Hedw.) Hilf. ex H.A.Crum & L.E.Anderson
1–70, (71), 72–95, 97–99, 101, 102, 104–109, (110), 111, 112.
H1–40. C.
 - 2 **grevilleana** (Brid.) Schimp.
88, 89, 92, 94, 97, 98, (106), 108. H28, 29.
 - 3 **crispa** (Hedw.) Schimp.
(1), 2, (3, 13), 14, (15, 16), 17, (21, 25, 38, 39), 40, 43, 47, 48, 54,
55, (57, 58), 59, (62–66, 68–72, 76, 81, 85, 86), 88, (89–91), 94,
95, (97, 106, 107), 109, (111), 112. H1, (2, 5, 16), 28, (29), 34,
(38–40).
 - 4 **subulata** (Hedw.) Schimp.
(1), 2, (3, 4, 10, 17), 34, (35), 39, 41–50, 57, 58, (59), 60, 62,
(63), 64, 65, (66), 67–69, (71), 72, 73, 75, 76, 78, (80), 81–83,
(85), 86–90, (91), 92, (93), 94–98, (99), 101, 104–106, 108–110,
(111), 112. H1, (3), 5, (6), 7, 8, 10, (12), 13, 16, 20, 27, 34, 35,

- (36, 38, 39), 40.
- 5 **varia** (Hedw.) Schimp.
1–90, (91), 92–112. H1–36, (37), 38–40. C.
- 6 **howei** Renauld & Cardot
2, 6–9, 13, 14, 35, 39, 41, 42, 45, 46, 57, 63. C.
- 7 **staphylina** H. Whitehouse
1–99, 101–109, 111, 112. H2–40. C.
- 8 **rufescens** (Dicks.) Schimp.
1–9, 11–18, (19), 20, 22, (23, 25, 27), 32, (33), 34–37, (38),
39–53, 55, 57–60, (61), 62–84, (85), 86–112. H1–6, (7), 8–10,
12, (14), 15, 16, 18, 20, (21), 26–30, (31), 32–40. (C).
- 9 **cerviculata** (Hedw.) Schimp.
(1–4), 5, (6), 8–11, (12), 13, (14), 15–18, (19), 20–22, (23, 24),
25, (26), 27, 28, (29), 30, (31), 32, (33, 35), 37, (38), 39, 40, (42,
43), 44, (45), 46, 48–50, (52), 54, (55), 56–64, (65, 66), 67–70,
72–74, (76), 77, 78, 81–85, (86, 88–90, 92, 96, 97), 98, (99),
102, 104, (105), 107, (108, 111), 112. H(1), 2, (3–6), 13, (14, 16,
17), 18, 22, 23, (25, 26), 27, (28–34), 35, 36, (37–39), 40.
- 10 **heteromalla** (Hedw.) Schimp.
1–112, H1–40. C.
- 32 **Fissidens** Hedw.
- 1 **viridulus** (Sw. ex Turner) Wahlenb.
1–70, 72, 79–83, (85, 86), 87, 90, 94, 99–101, 103, 104, (105).
H1–3, 5–13, 15, 19–24, 26, 27, (28), 29, 31, (32), 33–35, (36,
37, 39). C.
- 2 **crispus** Mont.
1–4, 6, (8), 9–12, 14, 20, 22, 24, 34, (35), 39–42, 44–50, 52, 57,
58, (59), 60, 61, (69), 70, (71), 73, 75, (83, 84), 98, 101, 102,
(103), 104. H(1), 2, (3, 15, 21), 27. C.
- 3 **pusillus** (Wilson) Milde
1–6, (7), 8–17, 19, (20), 22, (23), 24–27, 30, 32–37, (38), 39–42,
(43), 44–52, 54, 56–73, (74), 75–78, (79), 80–90, (91), 92, 93,
96–98, (99), 100–105, (106, 107), 108, (109). H1–7, (8), 9, 11,
13, (15, 16), 18–20, 22, 23, 26–30, 32–36, (38), 39.
- 4 **gracilifolius** Brugg.-Nann. & Nyholm
3, 5–18, 20–24, 26–38, 40, 41, 44, 45, 49–51, 53–57, 60–65, 69,
70, 77, 80, 81, 83, 86, (88, 89, 101). H2, 6, (7), 8, 9, 11, 14, 23,
24, 28–30, 33.

- 5 **incurvus** Starke ex Röhl.
1–42, (43), 44–47, 49–65, (66), 67–71, 75, (77), 81–84, (85),
90, (91, 100). H2, 3, 5, 7–9, 11, 12, 15, 18, (21, 24), 25, 26, (29,
31), 32, 33, (37, 38), 39, 40. (C).
- 6 **bryoides** Hedw.
a var. **bryoides**
1–112, H1–13, (14), 15–17, 19–25, 27–40. C.
b var. **caespitans** Schimp.
1–5, (6), 35, 41–50, 57, 59, 63, (64, 68, 69), 70, 71, 73, (86), 87,
88, 92, 96–105, 107–110, 112. H1–3, (5), 6, (7), 12, (16), 20, 27,
31, (34), 35, (38). (C).
- 7 **rivularis** (Spruce) Schimp.
1–6, 9, 14, 34–37, 40–46, 48, 57, 73, 86, 101. H2, 6, 9, 10. (C).
- 8 **monguillonii** Thér.
2, 3, (4), 5, 44, 45, 49, 52, 73. H3, 25, 29, 30, (33), 40.
- 9 **crassipes** Wilson ex Bruch & Schimp.
1–9, (10), 11, (12), 13–44, 46, 47, 50–55, 57–70, (71), 72, 73,
75, 77, 78, 81–85, (86, 91), 93. H2, 3, 5–8, (9), 10–12, (13), 14,
15, (16, 17), 18–22, 25, (28), 29–31, 33, 34, 36, (37), 38–40.
- 10 **rufulus** Schimp.
35–37, 39–44, 60, 62, 64–66, 68–70, (72), 77, 79–81, 88–90.
H(6), 20, 33, 34, (38).
- 11 **exilis** Hedw.
1–6, (7), 8–50, (51), 52–70, (71), 72, 75, (77), 78–84, 86, (88,
89), 90, 99, 101, 103, 111. H8, 11, 12, (19, 21), 22, 32, (38–40).
(C).
- 12 **celticus** Paton
1–6, 10, 13, 14, (15), 16, 17, 34, 35, 37, 39–50, (52), 57, 58, 60,
64, 65, 69–75, 86, 97–99, 101–104. H1–5, (7), 8–10, 12, 16, 25,
27, 36–38, 40.
- 13 **curvatus** Hornsch.
(1), 2, (3, 33), 41, 43, 44, (45), 48, 49. H(1).
- 14 **osmundoides** Hedw.
1–5, 11, 35–37, 40–52, 57–60, 62–80, (81), 82, 83, (85), 86–90,
92, 94–112. H1–3, (4), 6–9, (10, 12), 14–16, (18, 19), 20, (21,
24, 25), 27–29, (30), 31, (32), 33–36, (37), 38–40.
- 15 **taxifolius** Hedw. [*Fissidens taxifolius* var. *taxifolius*]
1–112, H1–40. C.

- 16 **dubius** P.Beauv.
1–26, (27), 28–112. H1–23, 25–40. C.
- 17 **adianthoides** Hedw.
1–20, (21), 22–112. H1–40. C.
- 18 **serrulatus** Brid.
1, 3, (48). H1, 3, 27.
- 19 **polyphyllus** Wilson ex Bruch & Schimp.
1–3, 5, 47–49, (98), 101, 102. H1–3, (4, 6), 20, (28).
- 20 **fontanus** (Bach.Pyl.) Steud.
2, 4, 7, 8, 17–24, 29–40, 45, 47, 50, 55–59, 62–64. H1, 2, 5, 16, 21, 29, 30, 37.
- 33 **Dicranoloma** (Renauld) Renauld
- 1 **menziesii** (Taylor) Broth. ex Renauld
H1†.
- 34 **Dicranum** Hedw.
- 1 **polysetum** Sw. ex Turner
11–13, 17, 22, 25–28, 30, (31, 34, 38), 40, 52, 54, 55, 57, (58), 59, (61), 62, 63, (64), 69, 70, (73), 80, (85, 87–90), 92, 95, 96, (106).
- 2 **bonjeanii** De Not.
1–6, (7), 8–15, (16), 17–28, (30), 32–37, (38), 39–52, 54, 55, 57–90, (91), 92–112. H2, 3, (7), 8–12, 14–20, 22, 23, 25–28, (29), 31–33, (34), 35, (36–38), 39, (40). (C).
- 3 **leioneuron** Kindb.
40, 42, 46, 47, 67, 70, (88, 92).
- 4 **scoparium** Hedw.
1–112, H1–40. C.
- 5 **spadiceum** J.E.Zetterst.
92, 97, 108.
- 6 **majus** Turner
1–18, (19), 20–28, (29), 30, (32), 33–37, (38), 39–52, (53), 54–112. H1–9, (10, 11), 12, (13), 14, 16, 18, 20–22, 25–31, 33–40. C.
- 7 **spurium** Hedw.
(3, 5), 8, 9, 11–13, (14), 17, (22, 27, 28, 38), 54, (61–64), 66, (68, 69, 72), 75, (85, 87, 88), 89–92, 95, 96.
- 8 **undulatum** Schrad. ex Brid.
40, (46), 50, (58, 59, 68), 70, (80), 81, 88, 89, 92, 95, 96, 109. H18.

- 9 **fuscescens** Turner
1–3, (5), 11, 13, 14, 16, 17, 25, 26, 28, 31, 34–36, (37, 38), 39–51, 53, 57–60, (61), 62–70, 72–83, 85–112. H1–4, 6–10, 12, 13, 16, 20, (21), 25, (26), 27–29, (30), 33–35, (36), 38, (39, 40).
- 10 **flexicaule** Brid.
(66, 68, 88), 89, 90, 92, (94), 96–98, 105–108, (109, 110), 112.
- 11 **elongatum** Schleich. ex Schwäger.
(68, 90), 92, (96, 97, 105, 109, 112).
- 12 **scottianum** Turner
1–5, 14, 16, 34, 35, (36, 39), 40, 41, (44), 45–50, 52, (58, 62), 67, (68), 70, 73, 75, 80, 86, (87), 88, (89, 90, 92), 97–105, 108, 110, (111), 112. H1–3, (4, 5), 6, (7, 8), 9, 16, 20, 25–30, 33–36, (38).
C.
- 13 **tauricum** Sapjegin
3, 6–9, 11–41, 47, 50, 51, 53–70, 75–78, 81–88, 94–96, 99, 106.
- 14 **montanum** Hedw.
6, (7), 8, 10–32, 34–44, 46–48, 50, 53–58, 60, 62–67, (68), 69, 70, 77, 80, 81, 83, 88–90, 94, (95, 96), 99, 107.
- 15 **flagellare** Hedw.
(3), 12–17, (19), 20, 21, (22, 23), 30, (38), 39, 41, 42, 47, 54, 64, (73).
- 35 **Paraleucobryum** (Limpr.) Loeske
1 **longifolium** (Hedw.) Loeske
88, 90, 92, 94, 96, 107, 108.
- 36 **Rhabdoweisia** Bruch & Schimp.
1 **fugax** (Hedw.) Bruch & Schimp.
1–5, 35, (39, 40), 41–50, (63, 64), 65, 66, 68–70, (71), 72, 73, (76), 80, 82, (85), 87–90, (91), 92, 93, 96–98, (99), 100, (101), 103–108, 112. H(1, 6, 7, 16), 20, (21, 31), 35, (38–40).
- 2 **crispata** (Dicks.) Lindb.
1–3, (4), 35, 40–50, 57, (59), 60, 64, 65, (66), 68–70, (71), 72, 73, (74), 75–79, 83–90, (91, 92), 93, 96–101, 103–108, (109), 110, 112. H1, (2), 3, 5–7, (8), 10, (12, 13), 16, 20, 27–29, (31, 33, 34), 35, (36, 38–40).
- 3 **crenulata** (Mitt.) H. Jameson
41–43, (44), 46–50, 58, 64, 66, 68–70, (72–74), 75, 76, 78, (79, 80), 86–88, 97–101, 103–105, 108, 110. H1–4, 6, 7, 16, (26), 27–29, 33, 35, (36), 38, 40.

- 37 **Cynodontium** Bruch & Schimp.
1 **bruntonii** (Sm.) Bruch & Schimp.
1–6, (16), 34–37, 40–50, 52, 55, 57, (58, 59, 62, 63), 64, 65,
(66), 67–72, (73), 74, 75, (76–78), 80–83, (84), 85–90, (91), 92,
95–99, (100), 105–109. H1, 4, (5), 6–8, (12, 13), 20, 29, 30, 35,
(36, 39). C.
2 **strumiferum** (Hedw.) Lindb.
89, 90, 92, 93, 96, (104), 106.
3 **jenneri** (Schimp.) Stirt.
48, 49, 68–70, 72, (73), 75, 76, 78, 80–82, 86–93, 95–98, 101,
104, 105, 107, 108, 112. H35.
4 **polycarpon** (Hedw.) Schimp.
48, (68, 70, 90), 92, (96).
5 **fallax** Limpr.
(90).
6 **tenellum** (Schimp.) Limpr.
(81, 87–89), 90, (91), 92, (95), 96, 108.
- 38 **Oncophorus** (Brid.) Brid.
1 **virens** (Hedw.) Brid.
69, 70, 86, (87), 88–90, 92, 96–98, (107), 108.
2 **wahlenbergii** Brid.
88, (89, 90), 92, 97, 98, (99), 104, 105, (106).
3 **integerrimus** Hedenäs
88, 89, 92, 97, (108).
- 39 **Dicranoweisia** Lindb. ex Milde
1 **cirrata** (Hedw.) Lindb. ex Milde
1–110, 112. H1–9, 11–13, 20–22, 25, 28, 30–32, 34–36, (37),
38, 39, (40). C.
- 40 **Arctoa** Schimp.
1 **fulvella** (Dicks.) Bruch & Schimp.
48, 49, (65), 69, 70, 72, (73), 75, 77, 78, (86), 87, 88, (89), 90, 92,
(94), 96–98, 100, 103–106, 108, 110. H1, 16, 27, 35.
2 **anderssonii** Wich.
108.
- 41 **Kiaeria** I.Hagen
1 **falcata** (Hedw.) I.Hagen
49, (65, 66, 69, 70, 72, 78), 86–90, 92, 94, 96–99, 104–107,
(108, 110). H35.

- 2 **blyttii** (Bruch & Schimp.) Broth.
4, 45–50, 65, 68–70, 72, 73, 75, 77, 78, 80, 83, 85–100, 103–108,
110, 112. H6, 7, 12, 20, 27, 34, 35, 38, 40.
- 3 **starkei** (F.Weber & D.Mohr) I.Hagen
(65), 69, 78, 86–90, 92, 94, 96–98, (103), 104–107, (108).
- 4 **glacialis** (Berggr.) I.Hagen
88, (90), 92, 94, 96–98, 105–108.
- 42 **Glyphomitrium** Brid.
- 1 **daviesii** (Dicks.) Brid.
(2, 3), 45, 46, 48, 49, (52), 69, 70, 75, (86), 93, 97, 98, (99),
100, 102–105, 108, 110, 112. H1–3, 16, 27, 31, 35, (38), 39,
40.
- 43 **Schistostega** D.Mohr
- 1 **pennata** (Hedw.) F.Weber & D.Mohr
1–6, 9, 12, (13), 17, 28, (32), 34–37, (38), 39–50, 55–59, 62–65,
68, (69), 70, (76, 85), 86, (88, 97), 112. (C).
- 44 **Bruchia** Schwägr.
- 1 **vogesiaca** Nestl. ex Schwägr.
2.
- 45 **Trematodon** Michx.
- 1 **ambiguus** (Hedw.) Hornsch.
(88).
- 46 **Pleuridium** Rabenh.
- 1 **acuminatum** Lindb.
1–28, (29), 30–60, (61), 62–70, (71), 72, (73), 74–84, (85),
86–88, (89), 90–94, (95), 96–98, (99), 100–104, (105), 106,
107, 111, 112. H1, 3, (4), 5, 7–12, (14), 16, 17, 19, 21, 22, (25),
27–29, (30), 31, (32), 33, (34), 35, (36, 37), 38, (39), 40. C.
- 2 **subulatum** (Hedw.) Rabenh.
1–6, (7), 8–18, (19), 20–31, (32), 33–47, (48), 49–54, (55), 57–70,
(71), 72, (73), 74–84, (85), 88, 89, (90, 91), 92–96, 98–100,
(101), 103–106, 108, 109, 111. H(1), 2–7, 9, 11–13, 21–23, 27,
28, 31, 32, 36, 38, (39), 40. C.
- 47 **Pseudephemerum** (Lindb.) I.Hagen
- 1 **nitidum** (Hedw.) Loeske
1–84, (85), 86, (87), 89, 90, (91), 92–105, (106), 107–109, 111,
112. H1–10, 12, 13, (15), 16, 17, 19–22, 25–27, 29–33, (34), 35,
36, (37), 38–40. C.

- 48 **Trichodon** Schimp.
1 **cylindricus** (Hedw.) Schimp.
1–112, H1–8, 10–14, (15), 16–20, 22, 23, 26–40. C.
- 49 **Ditrichum** Timm ex Hampe
1 **pusillum** (Hedw.) Hampe
2, 3, 13, (14, 16), 17, 22, 37, 39, (46), 48, 49, 54, 58, (60, 62, 64, 76), 89, 90, (95), 97–99, 101, 104, 108, 109. H(5, 12, 32, 34, 38, 39).
2 **cornubicum** Paton
(1), 2. H3.
3 **lineare** (Sw.) Lindb.
42–49, 69, 73, 88–94, 96–98, 103, 104, 110. H(28, 39).
4 **plumbicola** Crundw.
1, 6, 44, 46, 47, 49, 50, 64, 65, 67, 69, 71, 77, 88. H10, 20, 21.
5 **heteromallum** (Hedw.) E.Britton
1–5, (6), 9–17, (19, 24, 27, 32), 34–50, (51), 52, 55, 57–60, (61), 62–112. H1–16, 18, 20, 21, 25–30, (31, 32), 33–36, (37), 38–40.
6 **zonatum** (Brid.) F.Lees
41, 43, 44, 46–50, (68), 69, (70), 72, 73, 75, 77, 78, 87–90, 92, 94, 96–98, 100–106, 108, 110. H1, (16), 20, 27, 35, (38, 39).
7 **pallidum** (Hedw.) Hampe
13.
8 **subulatum** Hobk. & Bosw.
1, (2), 3, (15), 44, 45.
- 50 **Ceratodon** Brid.
1 **purpureus** (Hedw.) Brid.
1–112, H1–40. C.
2 **conicus** (Hampe ex Müll.Hal.) Lindb.
(22), 23, 24, 29, 32, (33), 34, (38, 53).
- 51 **Cheilothela** Lindb.
1 **chloropus** (Brid.) Lindb.
3, 6.
- 52 **Scopelophila** (Mitt.) Lindb.
1 **cataractae** (Mitt.) Broth.
1–4, 41, 44, 46, 49, 71. H3, 12.
- 53 **Eucladium** Bruch & Schimp.
1 **verticillatum** (With.) Bruch & Schimp.
1–17, 19, 20, 22–29, (30), 32–47, (48), 49–54, (55), 56–91,

93–95, 97–112. H1–12, (13), 14, 16–25, (26), 27–31, 33–36, (37), 38–40. C.

54 *Weissia* Hedw.

1 **controversa** Hedw.

a var. **controversa**

1–112, H1–13, (14, 15), 16–29, (30), 31–36, (37), 38–40. C.

b var. **crispata** (Nees & Hornsch.) Nyholm

1, (3), 6, 8, 9, (10), 11, 13, 14, 17, 24, (28), 33, 37, 40–42, 44, 45, 47, 49, 50, 52, 57, 60, (64), 69, 75, (80, 81, 83). H7–9, 11, (18), 20, 38, 39.

c var. **densifolia** (Bruch & Schimp.) Wilson

1–5, (6, 36), 41, 44–47, (48), 49–51, (60), 64, 65, 67, 70, 71, (81, 84, 87). H1–3, 9, 10, 18, 20, 27, 33, 34.

2 **wimmeriana** (Sendtn.) Bruch & Schimp. [*Weissia controversa* var. *wimmeriana*]
(96).

3 **perssonii** Kindb.

1–4, 6, (36), 41, 44–46, 48, 49, 52, 69, 71, 73–75, 98, 100–108, 110–112. H1–6, 9, 16, 17, 27, 28, (34), 35, (38), 39. C.

4 **rutilans** (Hedw.) Lindb.

1–3, (4–7), 9, 10, (11), 12–14, (15), 16, 17, (18–20), 22, (23), 34–37, (38), 39–50, 52, (57), 58, (59), 60, (61, 62), 63, (64), 65, 66, (67–69, 71), 72, 73, 75, (77), 78, (79), 81–85, 88, 90, (92), 96, (97), 98, 101, 104, (105, 107, 108), 109, 111. H8, 9, (35, 38), 39, 40. (C).

5 **condensa** (Voit) Lindb.

3, 6, 9–11, 13–15, (16, 17), 33, (81). H5.

6 **brachycarpa** (Nees & Hornsch.) Jur.

a var. **brachycarpa**

1, 2, (3), 5, (6), 8, 9, (10), 11, 13, 14, (15), 20–22, (23), 24, 31, (32), 36, 37, (38), 40, 44–46, 50, 53, 54, 57, 59, (61), 62–64, 66, 76, 77, 81–85, 88, (98), 109. H12, 33.

b var. **obliqua** (Nees & Hornsch.) M.O.Hill

1–4, (5), 6–20, (21), 22–30, 32–37, (38), 39–41, 43–47, (48), 49, 51–61, (62), 63–70, (71), 72–75, (76), 77, 79–85, (86), 88–94, 96–98, (99), 102–105, 107–112. H(1), 2, 4, 5, 8, 11, 12, 15, 16, 18, (21), 22–25, (26), 27, 28, (31, 34), 35, (37), 38–40. C.

- 7 **squarrosa** (Nees & Hornsch.) Müll.Hal.
(3), 10, (13–17), 22, 24, 29, 31, (32), 33–35, 37, (38), 39, 40, 44, 45, 53, (55), 56, (57–60, 62, 64, 69, 85).
- 8 **rostellata** (Brid.) Lindb.
3–5, 9, 13, 14, (15, 17, 22, 24, 29), 35–37, (38), 40, 44–46, 52, (55), 56–58, 61, 63, 64, 67, 83. H16, 26, 29, 30, 39, 40.
- 9 **wilsonii** D.A.Callaghan [*Weissia multicapsularis*]
1, 2, (3), 9, (13, 14, 17), 23, 29, 35, 45, 46, (58).
- 10 **sterilis** W.E.Nicholson
(3), 7–15, (16), 17, 20, 22, 24, 29, (30), 33, (37).
- 11 **levieri** (Limpr.) Kindb.
3, 6, 41, 47.
- 12 **longifolia** Mitt. [*Weissia longifolia* var. *longifolia*]
1, 2, (3), 5–8, 13–15, (16), 17–33, (34), 35–37, (38), 41, 44, 45, 47, 49, 50, 52–57, 62, 65, 66, 81, 82, 99.
- 13 **angustifolia** (Baumgartner) D.A.Callaghan [*Weissia longifolia* var. *angustifolia*]
1–3, 5, 6, (7), 8–17, 19–24, (25, 26), 28–34, 37, (38, 39), 40, 41, (43), 44, 45, 49–51, 53–55, 57, (58), 61, (62), 63, (64, 65), 66, (67). H(11), 19, (21), 23, (35, 38, 39).
- 55 **Trichostomum** Bruch.
 - 1 **brachydonium** Bruch
1–6, 8–16, (17), 20, 26, 29, 32–37, 39–53, (54, 55), 56–79, (80), 81, 82, 84–112. H1–12, (14), 16, 17, 21, 23–31, 33–36, 38–40. C.
 - 2 **crispulum** Bruch
1–17, 20, 22–24, 26, 28–30, 32–37, (38), 39–54, (55), 56–76, 79–83, 85–105, (106), 107–112. H1–11, (12), 14–36, (37), 38–40. C.
- 56 **Pottiopsis** Blockeel & A.J.E.Sm.
 - 1 **caespitosa** (Bruch ex Brid.) Blockeel & A.J.E.Sm.
(1), 6–14, (15, 16), 17, 22–24, 29, (36), 40, 45, 49.
- 57 **Tortella** (Müll.Hal.) Limpr.
 - 1 **inflexa** (Bruch) Broth.
6–17, 20, 22–24, 29, (30), 32–34, 61.
 - 2 **nitida** (Lindb.) Broth.
1–9, 13, 14, (20), 34–36, 39, 41–46, 48–52, 55†, 57, 60, (64), 69, (71, 73), 75, 86–88, 98, 100–103. H(1), 2, 3, 5, 7–9, (10), 15–18,

- (22), 23, 24, 27, 28, 33, 35. C.
- 3 **flavovirens** (Bruch) Broth.
1–6, 9–11, 13–15, 18, 19, 25, 27, 28, (34), 35, 41, 44–49, (50), 52, 54, 58–62, 66, (67), 68–71, 73–75, (76), 81–85, 89–91, 93–95, 97, 98, 100–112. H1–6, 8, 9, 11, 12, 16, (17), 20–22, 27, 28, 31, 34, 35, (37), 38–40. C.
- 4 **squarrosa** (Brid.) Limpr. [*Pleurochaete squarrosa*]
1–6, 8–11, 13–17, (22, 23), 26, 28, 33, 34, (36), 39–41, 44, 45, 47, 49–52, 56, 57, 60, 64, 69. H9, 12, (20), 21, 22, 31. C.
- 5 **tortuosa** (Hedw.) Limpr.
2–14, 16, 17, 20, 22–25, 29, (30), 32–37, (38), 39–54, (55), 56–60, 62–73, (74), 75–83, (85), 86–112. H1–31, (32), 33–40. C.
- 6 **fragilis** (Drumm.) Limpr.
(85), 88, (90), 94, (107), 108–110.
- 7 **pseudofragilis** (Thér.) Köckinger & Hedenäs
88, 89.
- 8 **inclinata** (R.Hedw.) Limpr.
17, (23, 28), 29, 33, 41, 44, (45), 48, 52, (53, 55), 59, 60, (65, 66), 69, 70, 75, 82, 84, (85), 91, 95, 100, 102, (106), 107–109. H27, 38.
- 9 **densa** (Lorentz & Molendo) Crundw. & Nyholm
33, 49, 50, 60, 64–66, 69, (71), 72, 77, 97, 98, 104, 105, 108, 110–112. H7, 9, 16, 17, 26–28, 33.
- 10 **fasciculata** (Culm.) Culm. [*Tortella bambergeri*]
33, 35–37, 40–50, 52, 57, 63–65, 69, 70, 72, 74–76, 85–89, 92, 94, 96–98, 100, 103–105, 109. H1, 3, 6–9, 16, 29.
- 58 **Chionoloma** Dixon
- 1 **tenuirostre** (Hook. & Taylor) M.Alonso, M.J.Cano & J.A.Jiménez⁴
a var. **tenuirostre** [*Trichostomum tenuirostre* var. *tenuirostre*]
35, 44, 46, 48, 52, 64, 72, 77, 80, 81, 87, 104. H20.
b var. **holtii** (Braithw.) M.Alonso, M.J.Cano & J.A.Jiménez
[*Trichostomum tenuirostre* var. *holtii*]
3, 14, 42, 44, 46–48, 50, 51, 57, 59, 63, 64, 69, 71–73, 78, 80, 88, 97, 98, 100, 105, 110. H1, 2, 8, 27, 36, 38.

⁴ The distribution of *Chionoloma tenuirostre* at species level is: 1–5, 13, 14, 34–37, 39–52, 57, 59, 60, (62), 63–73, (74), 75, (76), 77–79, 81, (85), 86–90, (91), 92–108, 110. H1–3, 6–9, 16, 20–22, 26–28, 31, 33–36, 38–40.

- 2 **cylindrotheca** (Mitt.) M.Alonso, M.J.Cano & J.A.Jiménez
[*Oxystegus daldinianus*]
44, 46–49, 69, 70, 72, 75, 76, 78, 87, 97, 98, 100, 104–106, 108,
110. H1, 3, 6, 20, 27.
- 3 **hibernicum** (Mitt.) M.Alonso, M.J.Cano & J.A.Jiménez
[*Trichostomum hibernicum*]
46, 48, 49, 72, 73, 75, (86), 87–89, 96–98, (99), 100, 101,
103–106, 108, 110. H1–3, (5), 16, 27, 28, 35, 38.
- 4 **recurvifolium** (Taylor) M.Alonso, M.J.Cano & J.A.Jiménez
[*Paraleptodontium recurvifolium*]
48, 49, (69, 70, 86), 87, (88), 92, 94, 96–98, (99), 104–108, 110.
H1–3, 16, 27, (35).
- 59 **Hymenostylium** Brid.
 - 1 **recurvirostrum** (Hedw.) Dixon
a var. **recurvirostrum**
1, 6, 40, (41), 42–46, 48–50, (51), 52, (57), 59, 60, 62, 64–72,
75, (76, 77), 78, 80–82, 84, (85), 86–91, 94–112. H(2), 3, (4), 9,
15, 16, 20, 21, 26–30, 33–35, (36, 38, 39).
b var. **insigne** (Dixon) E.B.Bartram
87, 88, 97, 98, 103–105, 108. H28, 29.
- 60 **Anoectangium** Schwägr.
 - 1 **aestivum** (Hedw.) Mitt.
(39), 41, 42, 44, 46–50, 57, (59, 62), 64–67, 69, 70, 72, 73, 75,
76, 78–80, 83, (85), 86–92, 95–108, 110. H1–3, 6–9, 16, (20),
27–29, (31), 33–36, (38), 39.
- 61 **Gyroweisia** Schimp.
 - 1 **tenuis** (Hedw.) Schimp.
1–50, (51), 52–70, (71), 72, (73, 74), 75–78, 80–91, 93–98,
(99–102), 104, 106–108, 110, 112. H(1), 3, 4, (5, 6), 8–11, 14–16,
19, 20, (21), 25–27, (28), 29–33, (34), 35–40.
 - 2 **reflexa** (Brid.) Schimp.
(38).
- 62 **Gymnostomum** Nees & Hornsch.
 - 1 **viridulum** Brid.
1–4, 6, 9–12, 14, 21, 34–36, 41, 42, 44, 45, 49, 63, 64. H1–7, 11,
12, 14, 19, 25, 32, 35. C.
 - 2 **calcareum** Nees & Hornsch.
3, 6, 32, 34–36, (37), 39, 41, 42, 44, 45, (50), 56–58, (60), 63–65,

- (69), 73, 88–90, 92, 97, 98, 101, 102, 104, 105, 108. H(2), 9, 11, (15, 16), 26–29, 33–36, 39. C.
- 3 **aeruginosum** Sm.
1–4, (5), 6, 13, 35, 36, 39–50, 52, 57, (58), 59, 60, 62–70, (71), 72–112. H1–3, (6), 7–9, 16, 17, 20, (21), 22, 23, 25–31, 33–35, (36, 37), 38–40.
- 63 **Molendoa** (Müll.Hal.) Hampe
1 **warburgii** (Crundw. & M.O.Hill) R.H.Zander
48, 49, 86–90, (91), 92, 96–101, 103–108, 110, 112. H27, 34.
- 64 **Leptobarbula** Schimp.
1 **berica** (De Not.) Schimp.
1, 6, 8–19, 21, 24–29, 33–35, 40, 44, 45, 55, 61–64. H11, 16.
- 65 **Ephemerum** Hampe
1 **recurvifolium** (Dicks.) Boulay
(3), 5–9, (10), 11–15, (16), 17, 19, 20, 22–37, (38), 40, 41, 45, 47, 49, 53–55, 57, (66). H20.
2 **crassinervium** (Schwägr.) Hampe
a subsp. **sessile** (Bruch) Holyoak [*Ephemerum sessile*]
1, 2, (3), 4, 5, (6, 7), 8, 12–14, 16, 17, (24), 26, 34, 35, 41–45, 52, 57, 58, 63, (64, 67). H7, 12, 16, 24, 27, 30, 39.
b subsp. **rutheanum** (Schimp.) Holyoak [*Ephemerum hibernicum*]
35, 44. H9, 18, 25–27, 29, 30.
3 **cohaerens** (Hedw.) Hampe
(13), 16, 20, 29, 32, 37, 47, (55). H(15), 17, 19, 24, 29.
4 **spinulosum** Bruch & Schimp., nom. nud.
H26, 39.
5 **stoloniferum** (Hedw.) L.T.Ellis & M.J.Price [*Ephemerum serratum*]
1–6, 10, (11), 12–14, 17, 19, 20, 22, (23), 24, 35–37, 40–49, 52, 55, 57–59, 62–64, 66, 67, (68), 69, 70, 73, 75, (76), 77–83, (84, 86), 87, 88, (90), 92, 96, (97–101), 103, (104), 105, 109, 110, 112. H(1), 3, 12, (13), 20, 22, 24, 26, 27, 29, 30, (34), 35, 38.
6 **serratum** (Hedw.) Hampe [*Ephemerum minutissimum*]
1–6, (7), 8–60, (61), 62–68, 70, 72, 73, (74), 75–78, 80–83, 85–87, 89, (90), 91–94, 98, (99), 101, (106), 107–112. H3–8, 10–13, (14), 19–23, 26, 27, 31–33, (34, 36, 37), 38–40.

- 66 **Dialytrichia** (Schimp.) Limpr.
1 **mucronata** (Brid.) Broth.
1–9, (10), 11–14, (15), 16–26, 28–47, 52, (54), 55, 57, 59, 64,
66. H9, 10.
2 **saxicola** (Lamy) M.J.Cano
2, 3, 6–9, 11, 17, 21–24, 33, 34, (49).
- 67 **Pseudocrossidium** R.S.Williams
1 **hornschuchianum** (Schultz) R.H.Zander
1–99, (100), 101–112. H1–13, 15–29, (30), 31–36, (37), 38–40.
C.
2 **revolutum** (Brid.) R.H.Zander
1–70, (71), 72–78, (79), 80–90, (91), 92–98, (99), 100–104,
(106), 108–111. H1–13, (14), 15–40. C.
- 68 **Bryoerythrophyllum** P.C.Chen
1 **recurvirostrum** (Hedw.) P.C.Chen
1–112, H1–40. C.
2 **ferruginascens** (Stirt.) Giacom.
1–7, 34, 35, (36), 39–50, 52, 57–60, 64–75, 77, 78, 80, 81, 83,
86–92, 94, 96–98, (99, 100), 101–106, 108, 110, 111. H1, 2,
7–10, 13, 14, 16, 20, 25–29, 31, 32, 34–36, 39, 40.
3 **caledonicum** D.G.Long
88, 97, 98, 104.
- 69 **Leptodontium** (Müll.Hal.) Hampe
1 **flexifolium** (Dicks.) Hampe
1–6, (11), 12, (13, 14, 16), 17, 20–22, (24), 26, 27, (28, 30, 32),
34, 35, (36), 37, (38), 39–52, 55, 57–60, 62–70, (71), 72–84,
86–91, (92), 93, (96), 97–100, (101), 102–104, (105), 106,
108, 110. H1, 3, 6, 8, 10, (12), 13, 20, (21), 27–29, (30, 33), 37,
(39).
2 **gemmascens** (Mitt.) Braithw.
1, 3–5, 7, 9, (10, 11), 13, 14, (16, 17), 20, 21, (23, 24), 25, 26,
(33), 34, (36), 41, 63.
3 **proliferum** Herzog
59.
- 70 **Streblotrichum** P.Beauv.
1 **convolutum** (Hedw.) P.Beauv.
a var. **convolutum** [*Barbula convoluta* var. *convoluta*]
1–112, H1–13, 15–40. C.

b var. **commutatatum** (Jur.) J.J.Amann [*Barbula convoluta* var. *sardoa*]
 1–47, 49–77, 81, 83–88, 90, 91, 93, 96, 98, 100, (101), 102–104,
 (106), 110–112. H1–13, 15–25, 27–29, 31–40. C.

71 **Barbula** Hedw.

1 **unguiculata** Hedw.
 1–112, H1–40. C.

72 **Didymodon** Hedw.

1 **sinuosus** (Mitt.) Delogne
 1–66, (67, 68), 69–72, 75–77, 79–85, 88, 93, 97, 98, (103), 105,
 108, 109, 112. H1–13, 15, (16), 18–29, (30–32), 33, (35–38),
 39. C.

2 **ferrugineus** (Schimp. ex Besch.) M.O.Hill
 1, 2, (3), 4, 6, (12), 13, (14, 15), 16, 17, (20), 22, (23, 24, 27),
 28, (30), 32–37, 39–48, 50, (51), 52, 53, 56–60, 62–70, (72), 75,
 77, 80, 82, 83, 87–90, 92, 94, 95, 97, 98, (101), 102–105, (106,
 107), 108, (109), 110, 111. H(2, 3), 4, 5, 7–13, (15), 16–20, (21),
 22–31, 33–36, (38), 39, 40.

3 **maximus** (Syed & Crundw.) M.O.Hill
 H28, 29.

4 **fallax** (Hedw.) R.H.Zander
 1–73, 75–112. H1–13, (14), 15–40. C.

5 **spadiceus** (Mitt.) Limpr.
 (3), 4, 6, (14, 16), 34–37, 40–45, 47, (48), 50, 51, (52), 54, 57,
 59, 60, 62–72, (73), 75–83, 85, (86), 87–90, (91, 92), 93–96,
 (97), 98–101, (102), 103–109, (110), 111, 112. H(1), 4, 5, (6, 7,
 9), 10, (11, 14), 15, 18, (19), 20, 21, 23, (25), 27–30, 33, 35, (36,
 38), 39, (40).

6 **luridus** Hornsch.
 1–70, (71), 72, 74–78, 80–85, 91, 93, (94), 100, 111, 112. H(1),
 2–7, (8), 9–12, (13), 14, 16–27, 29, 31, 33, (34, 35), 38, (39).
 C.

7 **tophaceus** (Brid.) Lisa
 1–72, (73), 74–85, (86), 87–91, 93–98, (99), 100–106, (107),
 108–112. H1–12, (14), 15, 16, 18–25, (26), 27–31, 33–40. C.

8 **nicholsonii** Culm.
 1–60, 62–70, 76, 77, (80), 81, 94, (100), 111. H2–13, 15–17,
 19–21, 23, 26–31, 33, 39. C.

- 9 **vinealis** (Brid.) R.H.Zander
1–6, (7), 8–38, (39), 40, 42–70, 73, (78), 81–84, (85, 86), 89, 92,
93, 96, (99), 100, (101, 106, 108), 110, 112. H2, 3, (4), 5, (6), 7,
9, 11, 12, (14), 16, 17, (18), 19–21, 23, (24), 26, 27, (28), 33, 35,
36, (37–39), 40. C.
- 10 **insulanus** (De Not.) M.O.Hill
1–112, H1–40. C.
- 11 **umbrosus** (Müll.Hal.) R.H.Zander
1, 6, 8–15, 17–33, 35, 39–41, 45, 46, 53, 54, 56, 57, 59, 62, 64.
H11, 21.
- 12 **australasiae** (Hook. & Grev.) R.H.Zander
1, 24, 35, 44.
- 13 **rigidulus** Hedw.
1–98, (99), 100–112. H1–40. C.
- 14 **glaucus** Ryan
7, (13, 65).
- 15 **acutus** (Brid.) K.Saito
6, 10, 11.
- 16 **icmadophilus** (Schimp. ex Müll.Hal.) K.Saito
1–3, (4), 6, (7), 8–10, 12–14, 16, 17, 20, 22–24, (25), 29–31, 33,
34, 36, 37, 39–42, 44, 45, 47, 49, 50, 52, 53, (54), 57–61, 63, 64, 69,
70, 80, 88, 89, (90, 93), 94, 104, 108. H(6, 8), 9, 20, 28, 31. (C).
- 17 **cordatus** Jur.
4.
- 18 **tomaculosus** (Blockeel) M.F.V.Corley
1–4, 40, 45, 56, 57, 63, 64. H4, 13, 18, 19, 21.
- 73 **Stegonia** Venturi
1 **latifolia** (Schwägr.) Venturi ex Broth.
(88), 89, (90), 92, 94.
- 74 **Crossidium** Jur.
1 **squamiferum** (Viv.) Jur.
10.
- 75 **Pterygoneurum** Jur.
1 **ovatum** (Hedw.) Dixon
(3), 6, 8–10, (13), 14–17, (18–20), 22, 23, (24), 25, 26, 28–30,
(31), 32, (33, 34, 36–38), 40, (50, 52), 53, (54, 55, 57–59, 61–64,
66, 67), 68, (72, 77, 79), 81, (82), 83, (85, 90), 94, (96, 106).
H(4, 21).

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- 2 **papillosum** Oesau
5, 6, 9, 14, 23.
- 3 **lamellatum** (Lindb.) Jur.
(3, 6, 13, 16, 23, 24, 28), 29, (32, 33, 37, 55, 57, 62–64, 86).
H(21, 38).
- 76 **Aloina** Kindb.
- 1 **brevirostris** (Hook. & Grev.) Kindb.
9, (11), 17, (19), 20, (22), 29, 54, 55, (57), 58, (61), 62–66, 84.
- 2 **rigida** (Hedw.) Limpr.
8, (11, 13), 14, 15, (16, 17), 20, 21, (22, 23), 24, 26, 28, 29, 32,
33, (34, 35, 37), 43–45, (48, 50), 51, 53, (54), 55, (57–59), 61,
(62), 63, (64), 65–67, 69, (77, 82), 83, (85), 89, 94, 95, (96, 99,
106). H(19, 21, 38, 39).
- 3 **aloides** (W.D.J.Koch ex Schultz) Kindb.
1–29, (30), 31–70, (71, 72), 75, (76), 80–85, (86, 87, 90, 94, 98),
100, 101, (106). H(1), 2–12, (13, 14), 15, 17, (18), 19–26, 28,
29, 31, (32), 33, 35, (36), 37–40. C.
- 4 **ambigua** (Bruch & Schimp.) Limpr.
1, (2), 3, (5), 6, (7), 8, 9, (11), 12, (13), 14, 15, 17–22, (23),
24–26, (27), 28–32, (33, 34), 35, (36), 40, (41), 44–46, 48–50,
(52), 54, 55, 57, (58), 59, (60, 62), 63, 64, 66, (68, 69). H(2), 5,
(6), 9, 20, (21, 31, 38, 39). C.
- 77 **Tortula** Hedw.
- 1 **subulata** Hedw.
(1), 3–6, (7), 8–10, (11), 12, 13, (14), 15–30, (32), 33–70, (71),
72, (73), 74–112. H(1, 4, 5, 8, 9, 11–14, 16, 20), 21, 22, (25), 26,
(27), 28, 29, (30, 33, 35–38), 39, 40.
- 2 **inermis** (Brid.) Mont.
94.
- 3 **schimperi** M.J.Cano, O.Werner & J.Guerra
5, (11), 13, 19, 20, 24–29, 31–33, (34, 57), 68.
- 4 **cuneifolia** (Dicks.) Turner
1–5, (6, 11, 13–15, 17, 19, 22, 25, 36, 37, 39, 45), 46, 48, 49,
(52). H(1, 3, 5, 8, 12, 14, 21, 38). (C).
- 5 **freibergii** Dixon & Loeske
14, 39, 40, 58, 59, 62, 84, 85, 100.
- 6 **solmsii** (Schimp.) Limpr.
1, 3.

- 7 **marginata** (Bruch & Schimp.) Spruce
1–30, 32–41, 45, 47, 50, 51, 53, 55–59, 61–64, (65, 66), 69, 70,
72, 81, (98, 99). H5, 13, (15), 16, (17), 23, 26, 27, 29, (36, 38,
39). (C).
- 8 **vahliana** (Schultz) Mont.
3–6, 15, (16, 19), 25, 28, 29, (33, 34, 36). H(21).
- 9 **canescens** Mont.
1–4, (14, 43, 45), 47, 48, (101). H5. (C).
- 10 **muralis** Hedw.
1–112, H1–40. C.
- 11 **leucostoma** (R.Br.) Hook. & Grev.
89, 92.
- 12 **cernua** (Huebener) Lindb.
(56), 57, (58), 63, (64).
- 13 **atrovirens** (Sm.) Lindb.
1–4, (5), 9, (10, 13), 14, 15, (36, 38), 41, (44), 45, 46, 48, 49, 52,
(68, 71, 73), 74, 81, 82, (85, 90), 91, (94, 99, 106), 109. H(1),
4–6, 8, 12, (20), 21, 35, (38, 39). C.
- 14 **amplexa** (Lesq.) Steere
19, 33, 37, 40, 55–58.
- 15 **lindbergii** Broth. [*Tortula lanceola*]
1, (2), 3, (4), 5, 6, (7), 8–10, (11), 12–17, 19, 20, (21), 22–26,
(27), 28–30, 32–37, (38), 39–42, 44, 45, 47, 49–57, (58), 60,
(61), 62–64, (65), 66, (67), 68, (69), 70, (75), 80–83, (84, 85),
88, 89, (90), 92, 94, 95, (99, 100, 106). H(4–6, 19, 21), 22, (38).
- 16 **wilsonii** (Hook.) R.H.Zander
1–4, (5), 6, 9, 11, (13, 14, 19, 27, 40, 44), 45, 48, (49, 50, 52, 58).
H(3, 5, 20), 21. (C).
- 17 **viridifolia** (Mitt.) Blockeel & A.J.E.Sm.
1–6, 9–11, (13, 25), 41, 43–46, 48, 49, 52, 54, (68), 71, (73, 74),
75, (77), 81, 85, (90), 91, (92), 93, 94, (101, 106, 108), 109–112.
H1–6, 9, 12, 20, 21, (35, 38), 39, (40). C.
- 18 **caucasica** Lindb. ex Broth. [*Tortula modica*]
1–13, (14), 15–65, (66, 67), 68, 69, (71, 73, 75, 76, 81), 82, 83,
(85, 88), 89, 90, (91), 92, (95, 99), 101, (104–106). H(1, 4), 5, 7,
9–13, (16, 18), 19, (20), 21, (26), 27, 31, (33, 37–39). C.
- 19 **truncata** (Hedw.) Mitt.
1–70, (71), 72–98, (99), 101, 102, (103), 104–112. H1–40. C.

- 20 **protobryoides** R.H.Zander
1, 3, (4), 5–14, (16), 17–34, 36, 37, 39–41, 45, 47, 49–54, (55),
56–59, (60), 61–63, (64), 66, (67, 68), 69, 82, (85, 90, 109), 111.
H(39).
- 21 **acaulon** (With.) R.H.Zander
a var. **acaulon** [*Phascum cuspidatum* var. *cuspidatum*]
1–70, (71), 72, 74, 75, 77–86, 88–95, (96, 99), 100, 101, 106,
109–111. H(1), 2–23, (24), 25–29, 31, (32, 33), 34, (35), 37–39,
(40). C.
b var. **pilifera** (Hedw.) R.H.Zander [*Phascum cuspidatum* var.
piliferum]
1, (2, 3, 5), 9–11, 13, (14), 15, (16), 18, 19, 25, 27–29, 33–35, 41,
45, 49, 60, 66, (67, 68), 81–83, (84, 89–91), 109. H12. C.
c var. **papillosa** (Lindb.) R.H.Zander [*Phascum cuspidatum*
var. *papillosum*]
1, 2, 11, 25–28, (39, 48), 56, 57. H38, (39). C.
- 78 **Microbryum** Schimp.
- 1 **starckeanum** (Hedw.) R.H.Zander
1–4, 6, 8–12, (13), 14, (17, 19, 23), 27, 34, 40, 41, 44, 45,
47, 49–52, (56), 57, (59, 68), 71, (90), 101, 102. H(5, 21, 33).
(C).
- 2 **davallianum** (Sm.) R.H.Zander
a var. **davallianum** [4]⁵
3, 5, (6–11), 12, (13), 15, (17), 19, 20, (21, 22, 24), 26, 28, (29),
30, (33), 40, (53, 57, 58), 60, 61, (62), 63, (64, 65, 67), 80, 111.
H(22).
b var. **conicum** (Schleich. ex Schwägr.) R.H.Zander [4]
(1–4), 5, (6, 7), 8, 9, (10, 11), 12, (13, 14), 15, (16–18), 19, 22,
(23, 24), 25, 26, (27), 28, (29, 30, 33), 34, 35, (36, 38, 40, 41, 45,
46), 49, (50), 51, 52, (53–56), 57, (58–60), 61, (63, 64, 67, 75,
77, 81, 83), 84, (86, 90). H(1, 2), 5, (11), 15, (19), 21, (31, 33,
39). (C).
c var. **commutatum** (Limpr.) R.H.Zander
1, (2), 3, (4, 9), 10, 13–15, (17), 45, 49, (66).

5 The distribution of *Microbryum davallianum* var. *davallianum* in the sense of Hill *et al.* (2008), i.e. including var. *conicum*, is: 1–20, (21), 22–37, (38), 39–41, 44–46, 49–53, (54), 55–57, (58, 59), 60–67, 69, (75, 77), 80–84, (85), 86, (90), 101, 111. H(1), 2, 5, 8–11, 13–15, 19–22, 24, (28), 31, 33, 34, 38, 39, (40). (C).

- 3 **rectum** (With.) R.H.Zander
1–3, (4), 5, 6, (7), 8–17, 19, 20, 22–30, 32–37, 40, 41, 44–47, 49–52, 54–57, (59, 60), 61–64, (65), 69, (71, 75, 81, 83), 101, 111. H(1), 3–5, 7–9, 11–15, (16), 19, (21), 22, 23, 26, (28, 31, 34). (C).
- 4 **curvicollum** (Hedw.) R.H.Zander
(1), 3, (4, 5), 6–17, (19), 20, 22–24, 26, (27), 28–30, 32–38, 40, 45, 49–55, 57, (61), 63, 64, (65), 66, (68, 69), 81, (90), 92, (94, 106). H(21).
- 5 **floerkeanum** (F.Weber & D.Mohr) Schimp.
1, 6–17, 19, 20, 22, (23), 24–26, (27), 28–30, 33–35, 38, 45, (49), 51, 53, 54, 56, 57, (58), 61–64, (66).
- 79 **Hennediella** Paris
 - 1 **stanfordensis** (Steere) Blockeel
1, 4, 14, 15, 25, 26, 29, 31, 33–40, 42, 43, 47, 50, 56, 58, 62–64, 66, 82, 83. H21.
 - 2 **macrophylla** (R.Br.bis) Paris
3, 5, 10, 11, 13–26, 28–32, 34, 38, 42, 53, 54, 57, 68, 78–81, 83, 92–94.
 - 3 **heimii** (Hedw.) R.H.Zander
1–3, (4), 5, 6, 9–11, 13–16, (17), 18–20, (21), 24, 25, 27–30, 32, (34), 35, 37, (38), 41, 44–49, (50), 51–54, 56, 58–63, (64, 65), 66–70, (71), 72–75, 81, 82, (83), 84, 85, 90, 91, (92), 93–98, (99), 100, (101), 102–112. H2, 3, (4, 5), 6, 8, 9, 11, 12, 15–17, (20), 21, 27–29, 31, 34, 35, 38, 39, (40). C.
- 80 **Acaulon** Müll.Hal.
 - 1 **muticum** (Hedw.) Müll.Hal.
1–16, (17), 18–20, (21), 22, 23, (24), 25–27, (29, 30), 31–33, 35–37, (38, 39), 40–43, 45–47, (48), 50, 52, (54), 55–58, (59–66), 67, 68, (69, 71), 72, (73), 81, (83, 85), 87–90, (91), 92, (95), 106. H(1, 4, 21, 34, 39, 40). C.
 - 2 **mediterraneum** Limpr.
1, 2, (3, 5), 11, 17, 45, 46, 57.
 - 3 **triquetrum** (Spruce) Müll.Hal.
(3), 9, 10, 14.
- 81 **Chenia** R.H.Zander
 - 1 **leptophylla** (Müll.Hal.) R.H.Zander [*Leptophascum leptophyllum*]

1, 10, 36.

82 *Syntrichia* Brid.

1 **ruralis** (Hedw.) F.Weber & D.Mohr

a var. **ruralis**

1–73, 75, 77–86, 88–96, 98, (100, 101), 102–104, 106, 108–112.
H(1), 2–5, (6), 7–13, (14, 15), 16–31, 33–40. C.

b var. **epilosa** (Venturi) J.J.Amann

24, 25.

2 **ruraliformis** (Besch.) Mans. [*Syntrichia ruralis* var. *ruraliformis*]

1–6, 8–20, 22, (23), 24–29, 31, 32, 34, 35, 37, 40, 41, 43–62,
66–71, 73–75, 81, 82, (83), 84–86, 90–112. H1–3, 5, 6, 8, 9, 12,
16, (19), 20–22, 27, 28, 31, (33), 34, 35, 38–40. C.

3 **norvegica** F.Weber

88, (92), 97, 98.

4 **montana** Nees

a var. **montana**

1–73, 75, 77, (78), 79–96, 98, 100–103, (104), 106–109, 111,
112. H1–11, (12), 13, (14), 15–34, (35), 38–40. C.

b var. **calva** (Durieu & Sagot ex Bruch & Schimp.) J.J.Amann
33, 41.

5 **princeps** (De Not.) Mitt.

40, 49, 57, (65, 75–77), 81, 83, 85, (86, 87), 88, (89, 90, 92), 96,
(98, 99, 101, 106), 107, 108. H(28), 39, 40.

6 **virescens** (De Not.) Ochyra

3, 6–8, 11–14, 16–41, 43–47, 50, 53–58, 61–67, 81–83, 89, 90,
(91), 92–94, (106). H21.

7 **laevipila** Brid.

1–72, (73), 74–83, 85–91, 93–99, (101–103), 104–107, (109,
110), 111. H(1, 2), 3–12, 14, 15, 18–23, 25, 27–31, 33, (34–37),
38–40. C.

8 **papillosa** (Wilson ex Spruce) Spruce

1–29, (30), 31–37, (38), 40–51, 53, 54, (55), 56–75, 78–83, 85,
86, 88–91, (92), 93–97, (98, 99), 100, (101), 103, (105), 106,
107. H(1), 2–13, 15, 17–25, 27–29, 31–34, 36, 38–40. C.

9 **latifolia** (Bruch ex Hartm.) Huebener

1–88, (89), 90, (91), 92, 93, 106. H2, 4–8, 11–14, 18, 19, (20),
21, 22, 29, 31, 33, 36–39, (40). C.

- 83 **Cinclidotus** P.Beauv.
1 **fontinaloides** (Hedw.) P.Beauv.
1–11, 13, (14, 15), 16, 17, 19–27, 29–52, 54–70, (71), 72, (73),
74–84, (85), 86–90, (91, 92), 93, 94, (95), 97–99, 101–105,
107–112. H1–40.
2 **riparius** (Host ex Brid.) Arn.
36, 37, 40. H(9).
- 84 **Saelania** Lindb.
1 **glaucescens** (Hedw.) Broth.
90, (96).
- 85 **Blindia** Bruch & Schimp.
1 **acuta** (Hedw.) Bruch & Schimp.
1, (2), 3–5, 35, 36, 40–50, 52, 57–60, 62–112. H1–3, (4), 6–8,
13, 16, 20, 21, 26–29, 31, 33–36, (37), 38–40.
2 **caespiticia** (F.Weber & D.Mohr) Müll.Hal.
(86), 88, 97.
- 86 **Blindiadelphus** (Lindb.) Fedosov & Ignatov
1 **diversifolius** (Lindb.) Fedosov & Ignatov [*Seligeria diversifolia*]
62, 97.
2 **campylopodus** (Kindb.) Fedosov & Ignatov [*Seligeria campylopada*]
(24), 34, 35.
3 **recurvatus** (Hedw.) Fedosov & Ignatov [*Seligeria recurvata*]
(3), 11, (12), 13, (14, 24), 34–36, (37), 39–44, 46–51, 57–60,
62–70, 72, 73, (74), 75–78, 80, 81, 83, 84, (85), 86–90, (91),
92, 94, 97, 98, (99), 100–109, 111. H1, 3, 6, 7, 16, 27–29, (31),
33–36.
- 87 **Seligeria** Bruch & Schimp.
1 **pusilla** (Hedw.) Bruch & Schimp.
3, 6–8, (9), 23, 33–37, (38), 39, 40, (41), 42–44, 48, 50, 51, (52,
54), 57, (59), 60, 62, 64–67, 69, 70, (72, 74), 78, 80, 83, 88, 89,
(90, 92), 94, 95, 97, 98, (101), 102, 104, (108). H28–30, 33, 39.
2 **acutifolia** Lindb.
6, 7, 9, 23, 33–35, (36, 39), 41, 42, 44, (47), 57, 60, 64, 65, (66,
69, 70), 89, 94, 97, 98, 104. H9, 11, 16, 24, 28–30, 33, 39, 40.
3 **brevifolia** (Lindb.) Lindb.& Arnell
49, 57, 87, 89.
4 **calycina** Mitt. ex Lindb.

- 3, 6–17, 20–24, 26, 28–30, 32, 33, 54, 61. H(39, 40).
- 5 **calcarea** (Hedw.) Bruch & Schimp.
3, 6–18, (19), 20–26, 28–30, 32–34, 37, 49†, 53–55, 61. H39, (40).
- 6 **donniana** (Sm.) Müll.Hal.
6, (7), 16, (22), 23, 29, 32, 33, 35, (36), 37, 39–43, (48), 49, 57, 60, 62–65, (66), 67, (68–70, 72, 75–77), 80, 83, 86–90, (91), 92, 94, 96–98, (99, 101, 103), 104–106, (107), 108. H9, 14, 16, 28–30, 33, 35, 39.
- 7 **trifaria** (Brid.) Lindb.⁶
105.
- 8 **patula** (Lindb.) Lindb. ex I.Hagen
35, 42, 64, 65. H28, 29, 33.
- 9 **oelandica** C.E.O.Jensen & Medelius
42. H28, 29, 33.
- 10 **carniolica** (Breidl. & Beck) Nyholm
67, 80.
- 88 **Ptychomitrium** Fűrnr.
1 **polyphyllum** (Dicks.) Bruch & Schimp.
1–6, (9), 13, 17, 23, (32, 33), 34–37, (38), 39–50, 52, (55), 57–60, (62), 63–90, (91, 92), 93, 94, (95), 96–112. H1–13, (14), 15, 16, 19–22, 25–40. (C).
- 89 **Campylostelium** Bruch & Schimp.
1 **saxicola** (F.Weber & D.Mohr) Bruch & Schimp.
(3, 12), 13, 14, (15), 16, 36, 42, 46, (48), 49, 57, (58, 59), 60, 62, (64, 67), 68–70, 72, (77), 80, 86, 98, (99), 103, (104). H1, 2, 8, (20, 21), 28, 29, (40).
- 90 **Brachydontium** Fűrnr.
1 **trichodes** (F.Weber) Milde
1–3, 12, 13, (16), 17, 30, 34, 35, (36), 39, 40, 42–44, (48), 49, 57, 59, 60, 62, (63), 64, 65, (66), 67–70, 72, (73), 76–78, 80, (81, 83), 84, 85, (86–88), 89, 90, (92, 95), 96–98, (99), 103, 104, (105), 111. H20, (21, 28), 29, 35, 38, (40).
- 91 **Coscinodon** Spreng.
1 **cribrosus** (Hedw.) Spruce
2, 4, 44–50, 57, 62, 64, (69), 70, 71, (72, 73), 83, (88), 94.

6 In its earlier broader sense, *Seligeria trifaria* includes *S. patula*. The distribution of *S. trifaria* s.lat. is: 35, 42, 57, 64, 65, (69), 89, 105, 108. H28, 29, 33.

92 **Schistidium** Bruch & Schimp.

- 1 **maritimum** (Sm. ex R.Scott) Bruch & Schimp.
a subsp. **maritimum**
1–5, 44–46, 48, 49, 52, 58, (59), 60, 62, (66), 68–71, 73–76, 81–85,
90, 91, 93–98, (99), 100–106, (107), 108–112. H1–4, (5), 6, 8, 9,
12, (13), 16, (17), 20, 21, 27–29, 31, 34, 35, 38–40. C.
b subsp. **piliferum** (I.Hagen) B.Bremer
103, 104, 110, 112.
- 2 **rivulare** (Brid.) Podp.
2–5, (34), 35, 36, (37–39), 40, 42–50, (51), 52, (55), 57, 58,
(59), 60, 62–70, (71), 72–101, 103–106, 108, 109, 111, 112.
H1–3, (4–7), 8, 9, 16, 20, 21, 24, 25, 28, (29), 30, 33–35, 38–40.
- 3 **platyphyllum** (Mitt.) H.Perss.
35, (36), 39, 41–44, 47, 52, 54, 56–60, 62–67, (68), 69, 70, 72,
75, 77, 79, 80, (81), 83, 84, (86), 88, 89, (90, 92), 94, 95, (96),
98, 104, 108, 112. H1, 3, 8, 9, (19, 28, 33), 34, 36, 39, (40).
- 4 **agassizii** Sull. & Lesq.
48, 49, 65, 66, 69, (70), 72, (73), 87, 88, 90–92, 94–98, 105–108.
H27, 35.
- 5 **apocarpum** (Hedw.) Bruch & Schimp.
1–6, 13, 27, 33–37, 39–53, 57–59, 62–70, 72–98, (99), 100,
(101), 103–112. H1–4, 6–11, 13, 15–17, 19, 20, 25–40.
- 6 **flexipile** (Lindb. ex Broth.) G.Roth
104.
- 7 **trichodon** (Brid.) Poelt
(49), 64–66, 69, (70), 87–90, 92, 94, (96), 97, 98, 105, 108. H29,
33.
- 8 **papillosum** Culm.
48, (72), 88–90, 92, 96, 97, 104.
- 9 **pruinoseum** (Wilson ex Schimp.) G.Roth
43, 47, 57, 75–77, 81, 83, 85, (87), 88–90, 92, 97, 98, 103, 104,
107, 112. H39, 40.
- 10 **strictum** (Turner) Loeske ex Mårtensson
(41), 42, 44, 46, 48–50, 64, 65, (66), 68–70, 72, 73, 75, 78,
83, (86), 87–90, 92, 94–98, (99), 100, (101), 103–108, (109),
110–112. H1, 3, 6–8, 13, (18, 25), 27, 28, (29), 35, 39, 40.
- 11 **dupretii** (Thér.) W.A.Weber
88, 89, (90), 92, 97, 107.

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- 12 **robustum** (Nees & Hornsch.) H.H.Blom
2, 33, 42, 46, 50, 57–59, 64–67, 69, (88), 89, 90, 92, 94, 95, 97,
98, 101, 104, 105, (107), 108. H28, 29.
- 13 **confertum** (Funck) Bruch & Schimp.
46–48, (49), 64, (65, 69), 70, (76), 77, (79, 83, 85, 87–89), 90,
96–98, (99, 108). H(26, 31, 32, 39).
- 14 **flaccidum** (De Not.) Ochyra
(49), 103.
- 15 **frigidum** H.H.Blom
a var. **frigidum**
42, 46, (47, 49, 65, 72, 78), 92, 97, 104, 108.
b var. **havaasii** H.H.Blom
(49, 65, 72), 92, 104.
- 16 **atrofuscum** (Schimp.) Limpr.
88, 89, 92, 94, 96.
- 17 **crassipilum** H.H.Blom
1–78, 80–98, 100, 101, 103–112. H1, 3–16, 18–36, 38–40.
C.
- 18 **elegantulum** H.H.Blom
18, 19, 33–35, (36), 37, 40, 41, 43–49, 51, 52, 57–60, 64–66, 69,
72, 75, 76, (97, 98), 103–105, (108), 110. H2–11, 15, (16), 17,
19, 20, 24, (26), 28, 33–36. C†.
- 19 **helveticum** (Schkuhr) Deguchi
47, 88, 94.
- 93 **Grimmia** Hedw.
- 1 **anodon** Bruch & Schimp.
(69), 83.
- 2 **crinita** Brid.
2, 17, 24, (38). H(21).
- 3 **laevigata** (Brid.) Brid.
1, (2), 3, 4, (7), 13–15, (16), 22, 34–37, 40, 42–47, (48), 49, 50,
(52, 55), 57, (71), 75, 82, 83, 85, (87), 88, (89, 90, 99), 100, 104.
H(3, 5, 39). C.
- 4 **tergestina** Tomm. ex Bruch & Schimp.
7, 19, 23, 33, 34, 49, 51, 98, (103), 112.
- 5 **montana** Bruch & Schimp.
3, (35), 40, 43, 45–47, (48), 49, (52, 65, 70), 72, (73), 80–83,
(85, 86, 90), 92, 93, (98). (C).

- 6 **reflexidens** Müll.Hal. [*Grimmia sessitana*]
(75).
- 7 **alpestris** (F.Weber & D.Mohr) Schleich.
48.
- 8 **donniana** Sm.
3–6, 35, (36, 37), 40–52, 57–59, (60), 63, (64), 65–70, (71),
72–83, 85, (86), 87–98, (99), 100, 101, 103–105, 108, (110),
112. H1, (2, 6), 7, 16, (19), 20, (21), 27, 31, (34, 37), 38, 39.
- 9 **arenaria** Hampe
46, 48, 49, (50), 69, 70.
- 10 **elongata** Kaulf.
46, 48, 49, (68, 69), 70, (73), 90, 92.
- 11 **longirostris** Hook.
(3), 4, 13–15, 35, (39), 43, 44, 49, (55), 68, (69), 75, 83, (85, 87),
88, 89, (90, 91), 92, (93), 95, 97, 98, 101, (102), 103–106, 108,
112. H(1, 4), 16, (38, 39).
- 12 **ovalis** (Hedw.) Lindb.
10, 13, (16, 19, 34), 35–37, 42–44, (50), 66, (69, 70, 73), 81, 82,
(83, 85, 87, 88), 89, 90, 96, 98, 107, 108.
- 13 **unicolor** Hook.
90, 108.
- 14 **atrata** Miel. ex Hornsch.
46–49, 69, 70, 72, 73, (88), 89, 90, 92, 96, 98, 101, 103, 106.
H(1), 35.
- 15 **incurva** Schwägr.
40, 45, 48, 49, 68–70, 72, (73), 80, 89, 90, (91), 92, (94), 96, 97,
(98), 101, 105, 106, 108.
- 16 **pulvinata** (Hedw.) Sm.
1–112, H1–13, (14), 15–40. C.
- 17 **orbicularis** Bruch ex Wilson
1–3, (4), 6, 8, 9, 13, (14), 16, (22), 23, 33, 34, 36, (37), 40, 41,
44, 45, (48), 49–52, 59, 60, (64, 65, 67, 69, 82), 83, 85, (88, 89),
94, 97, (101, 102), 104, 108. H(4), 5, 11, 20, 21.
- 18 **torquata** Drumm.
42–44, 48–50, 64, (65), 66, 68–70, 72, 73, 75, (78), 86–90, 92,
95–99, (100), 101, 103–108. H1, (2), 3, 6–8, 16, (20, 27), 28, 39.
- 19 **funalis** (Schwägr.) Bruch & Schimp.
45, 47–49, 64, (65), 66, 69, (70), 72, 73, 75, 77, 78, (85), 86–90,

- 92, 94, 96–98, (99, 100), 101, 103–110. H1, 3, (4), 6, (7), 16, (20), 27, (31), 34, 35, 38–40.
- 20 **trichophylla** Grev.
1–14, 16–18, 20, 22, 24–28, 29†, 32, 34–50, 52, 55–60, (61), 62–112. H1–4, 6–9, 11–13, (14), 16, 17, (18, 19), 20–22, 26–29, (30), 31–33, (34), 35–40. C.
- 21 **lisae** De Not.
1–3, (4), 5, 13, 18, 29, (34, 36), 42–50, 52, 69, (70, 73), 74, 75, 77, 78, 80–86, 88, (89), 90, 92, (93), 96–99, 101, 102, (103), 104, 105, 107, 108. H1–3, 5, 6, 8, 9, 16, 22, 31, (35). C.
- 22 **dissimulata** E.Maier
5–7, 12–14, 19, 25, 26, 28, 29, 33, 34, 57, 64, 75, (106), 112. H9, 15.
- 23 **muehlenbeckii** Schimp.
47–49, 75, 86, 90, 94, 97, 98, (101), 102–105, 110. H1, 3, 6, 40.
- 24 **hartmanii** Schimp.
2, 3, (34), 35, 36, 42–50, (52), 64, 65, (66, 67), 68–70, 72–75, 79, 81, 82, 86–99, 101–105, (106), 107, 108, 110. H2, 3, 7, (16), 20, (26), 27, 29, (31, 34), 35, (38, 39), 40.
- 25 **anomala** Hampe ex Schimp.
49, 88, 96, (97). H3, 26, 28.
- 26 **decipiens** (Schultz) Lindb.
1, (2), 3, (4), 7, 13, (14), 16, (22), 24, 26, 35, 36, 42–45, (47), 48, 49, (52, 55, 62, 66, 68), 69, (70, 73), 75, (79), 80–83, 85, 86, (87–89), 90, (92, 94), 96–98, 100–108, (110). H6, 8, 16, 20, 27, 31, 38, 39. (C).
- 27 **elatior** Bruch ex Bals.-Criv. & De Not.
(90), 107, 108.
- 28 **ramondii** (DC.) Margad.
(2), 3, 4, 42–45, 47–49, (57), 65, 68–70, (71), 72, 73, 75, 76, 78, 80, (82), 86–90, 92–100, (101), 102–110, 112. H1–3, 6, 7, (16), 20, (21), 27, 31, (34), 35, 38–40.
- 94 **Racomitrium** Brid.
- 1 **ellipticum** (Turner) Bruch & Schimp.
48, 49, (65), 69, 70, 72, (73), 75, 76, (86), 87, 88, 90, 92, (94), 96–98, (99), 100, (101), 102–108, 110, 112. H1–3, (4), 16, (20), 27, 28, 31, 34, 35, 38–40.

- 2 **aciculare** (Hedw.) Brid.
1–6, 13–15, (16), 17, 19–21, 24, 25, 27, 30, 32–53, 55, 57–60, 62–112. H1–4, 6–10, 12–16, 18–40. C.
- 3 **aquaticum** (Brid. ex Schrad.) Brid.
1–6, 9†, 35, 36, (37), 40–50, 52, (55), 57, 58, (59), 60, 63–78, 80, 82, (83), 84–92, 94–108, (109), 110–112. H1–3, (4, 5), 6–8, 11–14, 16, (18), 20, 21, (24), 25–31, (32), 33–35, (36, 37), 38–40. C.
- 4 **fasciculare** (Hedw.) Brid.
1–6, 8, 11–14, (16), 17, 19, 20, 22, 24, 26, 30, (32, 33), 34–52, 54, 55, 57–60, 62–112. H1–4, 6–13, (14), 16, (19), 20–22, (24), 25–40.
- 5 **macounii** Kindb.
subsp. **alpinum** (E.Lawton) Frisvoll
42, 44, 46, 48, 49, 69, 88, 90, 92, 94, 96, 97, (98), 105–108. H1, 3, 27.
- 6 **sudeticum** (Funck) Bruch & Schimp.
4, 35, 40–42, 44–50, 52, 57, 59, (60), 63–65, (66, 68), 69–73, 75, 76, 78–80, (81, 86), 87–90, 92–94, 96–108, (109), 110, 112. H1–4, 6–8, 12, 13, 16, 20, 21, 27–31, (33), 34–36, 38, (39), 40.
- 7 **affine** (Schleich. ex F.Weber & D.Mohr) Lindb.
3, 4, 9, 13, 14, (15), 16, 17, 34–36, 39–48, (49, 50), 55, 57–59, (60), 62–70, 72–76, 78, (79), 82, 83, 85–90, 92–94, 96–98, 100, 101, 103–108, 110–112. H1, 6, 8, 12, 13, 16, 20, (27), 31–36, (38), 39, 40.
- 8* **heterostichum** (Hedw.) Brid. sensu Hill *et al.* (2008)
1–8, 9†, (11), 12–14, (16), 17, 19, 20, 22–25, 27, (29), 32, 34–37, 40–50, 52, 54, 55, 57–60, 62–90, (91), 92–100, 102–110, 112. H1–9, 11–13, 15, 16, 19–22, (24), 25–31, 33–36, (37), 38–40.
- 8 **obtusum** (Brid.) Brid. [5]
4, 5, 13, 14, 22, 35, 43–46, 49, 52, 57, 63, 64, 75, 87, 98, 100, 104. H20, 26.
- 9 **heterostichum** (Hedw.) Brid. s.str. [5]
4, 8, 13, 22, 35, 37, 45–47, 57, 64, 75, 76, 88.
- 10 **himalayanum** (Mitt.) A.Jaeger
88, 98.
- 11 **lanuginosum** (Hedw.) Brid.
1–6, 8, 9, 11, (12), 13, 14, (16), 17, 19, 20, (22), 23, (24, 27),

- 29, 30, (32, 33), 34–36, (37), 38–50, (51), 52, 55, 57–60, (61), 62–81, (82), 83–112. H1–10, (11), 12–40.
- 12 **ericoides** (Brid.) Brid.
1–6, 8, (9), 12, 13, (19, 23, 27), 28, (29), 30, (33, 34), 35–52, (54), 55, 57, 59, 60, 62–90, 92, 94–112. H1–3, (5), 8–10, 12, (13), 14–16, (18, 19), 20, 21, 25–36, 38–40.
- 13 **elongatum** Ehrh. ex Frisvold
2–4, (9), 11, (12), 17, (20), 26, 28, 40, (42), 43–50, (52), 57, 60, 65–70, 72, 74–78, 80–83, (85, 86), 87–94, 96–99, 104–106, 108, 109, 112. H20, (39).
- 14 **canescens** (Hedw.) Brid.
(5), 6, 8, (14, 17, 23), 26, (27), 28, (30), 35, (36, 37), 41, 42, 47, 52, 54, 66, 69, 70, 82, 84, 85, 87–90, 92–95, 97, 103, 104, 106, 107, 109, 112. H21, (22), 38. (C).
- 95 **Hedwigia** P.Beauv.
1 **ciliata** (Hedw.) P.Beauv.
a var. **ciliata**
1, 7, 13, 14, 19, 22, 29, 35–37, 40, 42, 43, 47, (48), 55, 57, 61, 70, 80.
b var. **leucophaea** Bruch & Schimp.
35, 36, 82.
- 2 **striata** (Bruch & Schimp.) John Whitehead & Fergusson ex Anon.
48, 49, 69, (73, 87), 97, (98), 105, 108. H6.
- 3 **stellata** Hedenäs
1–9, 12–15, 20, 22, 28, 34–36, (37), 40–50, 52, (55), 57–59, 63–65, (66), 67–70, 72–83, (84, 85), 86–90, (91), 92–110, 112. H1–4, 6–9, 11, (12, 15), 16, 19–21, (22, 24, 25), 26–28, (29), 30–36, (37), 38–40. C.
- 96 **Braunia** Bruch & Schimp.
1 **imberbis** (Sm.) N.Dalton & D.G.Long [*Hedwigia integrifolia*]
45, 46, 48–50, 52, 69, 70, (71, 72), 73–75, 82, (87–89), 96–98, (100), 101, 103–105, 108. H1, 3, 6, 20, 31, 37, 39.
- 97 **Tayloria** Hook.
1 **lingulata** (Dicks.) Lindb.
(86), 88, (89), 90, 92, 94.
2 **tenuis** (Dicks.) Schimp.
(87, 88, 90–92, 96, 105), 109. H(40).

- 98 **Tetraplodon** Bruch & Schimp.
1 **angustatus** (Hedw.) Bruch & Schimp.
(49, 88–90), 92, 94–97, (104), 105, 106, (108). H18.
2 **nnioides** (Hedw.) Bruch & Schimp.
(3, 4), 12, 17, 35, 40, (41), 42, 44, 46–49, 52, (54), 57, 58, (59),
60, (61), 62–70, 72–83, (85, 86), 87–90, (91), 92–98, (99), 100,
(101), 103–109, (110), 111, 112. H1, (2, 3, 7), 8, 10, 14, 16–18,
(19), 20, 22–25, 27–30, 33, 35, 36, (38), 39, (40).
- 99 **Aplodon** R.Br.
1 **wormskioldii** (Hornem.) R.Br.
66, (69, 70, 88), 96.
- 100 **Splachnum** Hedw.
1 **sphaericum** Hedw.
(3, 4, 35, 36), 41–43, (44, 46), 47–50, 57–60, 62–70, (71), 72,
73, 75–81, 83, (84, 85), 86–90, (91), 92, 94–98, (99), 100–110,
(111), 112. H1–3, (7, 9, 11), 16, 19, 20, (21, 26), 27–30, 33,
(34), 35, 36, 38–40.
2 **ampullaceum** Hedw.
2, 3, (4, 5), 8, 9, 11, (14, 15, 17, 22, 23, 25–27), 28, (29–31), 35,
(38), 39, (40), 41–50, 52, (55), 57, (58, 59), 60, 62–64, (65),
66–70, 72, 73, (74), 75–80, (81), 82, 83, (86), 87–89, (90),
92–99, 101–110. H1, (2), 3, 4, (7), 8–10, (12, 14), 15–17, (19),
20, (21), 22, 23, (24), 25–29, 31, 33, (34), 35, (36, 37), 38, 39,
(40).
3 **vasculosum** Hedw.
(65, 68, 69), 70, 72, 78, 87, 88, (89), 90, 92, 93, (95), 96, 97,
(106, 107).
- 101 **Paludella** Brid.
1 **squarrosa** (Hedw.) Brid.
(58, 61, 62). H27.
- 102 **Meesia** Hedw.
1 **uliginosa** Hedw.
52, 59, (60, 65), 66, 67, 69, 70, (75, 78), 80, (82, 85, 86), 87–89,
(90, 91), 92, 94–98, 105, 106, 108–110. H35.
2 **triquetra** (L. ex Jolycl.) Ångstr.
H(27), 28.
- 103 **Amblyodon** P.Beauv.
1 **dealbatus** (Hedw.) P.Beauv.

(4, 26, 27, 37, 38), 41, 42, 44, 48, 52, 59, (60, 62, 63), 64, (65–67), 68–70, (74, 75), 80–83, (85–87), 88–90, 92, 94, 95, (96), 104, 105, (106), 108–112. H1, 3, 9, 16, (17, 21, 26), 27–29, (31, 32), 33–35, (38), 39, 40.

104 *Leptobryum* (Bruch & Schimp.) Wilson

- 1 **pyriforme** (Hedw.) Wilson
1–35, (36), 37–42, 44–78, (80), 81–86, (88), 89, (90), 92–96, (97–99), 101–111. H2–4, 6–8, (9, 14), 17–23, 25, (26, 27), 29, 30, (31), 33–36, 38, 39, (40). C.

105 *Plagiopus* Brid.

- 1 **oederianus** (Sw.) H.A.Crum & L.E.Anderson
(1, 34), 35, (36, 39, 41), 42–44, 46–50, 57, 60, 64, 65, (66), 69, (70), 72, (76, 83, 85), 86–90, 92, (94), 96–98, (99, 103), 104, (108). H(1), 29, 39.

106 *Bartramia* Hedw.

- 1 **halleriana** Hedw.
35, 42–44, 46, 48, 49, (57, 62), 64, 65, (66), 69, 70, (72), 73, 75, (76, 80), 86–90, 92, 96–99, (100, 101), 103–106, 108. H1, (4, 6), 20, (36, 39).
- 2 **pomiformis** Hedw.
1–6, (7), 8–17, (18), 19, 20, (21), 22, (23), 24–28, (29, 30, 32), 34–37, (38), 39–52, (54, 55), 57–60, 62–70, (71), 72–110. H1–13, (16), 20–22, 27–31, 33–36, (37), 38–40. C.
- 3 **ithyphylla** Brid.
(2, 3), 13, (14–17, 25), 35, 36, (37), 40, (41), 42–44, 46–50, (55), 57–60, 62–70, (71), 72–84, (85), 86–112. H1, 6–8, (16), 22, (27), 30, (31, 35, 36, 38), 39, 40.
- 4 **aprica** Müll.Hal. [*Bartramia stricta*]
(14), 43, (47), 88. C.

107 *Conostomum* Sw.

- 1 **tetragonum** (Hedw.) Lindb.
(49, 69), 86–90, 92, 94, 96–100, 103–107, (108, 112).

108 *Philonotis* Brid.

- 1 **rigida** Brid.
1, (2), 3, 4, (43), 45, 48, 49, (50, 71), 75, (87). H1, (2, 3), 16, (20), 27, (33), 34, 35, 39. C.
- 2 **marchica** (Hedw.) Brid.
10, (65).

- 3 **capillaris** Lindb. [*Philonotis arnellii*]
1–4, (9, 10), 13, (14–17, 22, 23), 35, (36, 37), 40, 42–50, 57–60, 64, 67, 68, (69), 70, 72, (73), 75, 81–83, (86), 87, (90), 92, 93, 95–98, 101, 103–105, 108, (109), 111. H(16), 30, (36, 38, 39). (C).
- 4 **caespitosa** Jur.
1, 2, 4, (6), 8, (9–11, 13, 14), 17, (22, 38), 39–49, 57–60, 63, (64), 65–67, (68–70), 73, 75, 79, (81), 83–86, (90), 93, 95–98, (99), 102–105, 107, 108, 112. H(1, 4), 8, 12, (16), 20, 27, 29, 30, (31, 33), 37, 38, (39), 40. (C).
- 5 **fontana** (Hedw.) Brid.
1–14, (15), 16, 17, (18, 19), 20, (21), 22, 23, (24–26), 27, 28, (29), 30, (32), 33–55, 57–112. H1–10, (11), 12–18, (19), 20–40. C.
- 6 **tomentella** Molendo
49, (65, 68–70), 88, (89, 90), 94, 96–98, 103–105, 107, (110), 112. H27, 34, 35.
- 7 **seriata** Mitt.
49, 87–90, 92, 94–98, 103, 105–108, (111).
- 8 **calcarea** (Bruch & Schimp.) Schimp.
(2, 3), 4, 5, (7), 8, 9, 11, (12), 22, (23, 26), 27, 28, 32, (33, 34), 35, 36, (37), 38–52, 54, 57–70, 72, 73, (74), 75–83, 85–90, (91), 92, (93), 94, 95, (96), 98–105, (106), 107–112. H(1), 2, (6), 7, 9–11, 14–16, (17), 18–31, (32), 33–35, (36–39), 40.
- 9 **cernua** (Wilson) D.G.Griffin & W.R.Buck
(48, 90, 97, 98, 105, 110). H(1, 16), 27, 35.
- 109 **Breutelia** (Bruch & Schimp.) Schimp.
 - 1 **chrysocoma** (Hedw.) Lindb.
1–6, (9), 11, 35, 36, (39), 40–52, (54, 55), 57, (59), 60, (61), 62, (63), 64–70, (71), 72–80, (81), 83, (85), 86–90, (91), 92–112. H1–18, 20, (24), 25–40.
- 110 **Bryum** Hedw.
 - 1 **julaceum** Schrad. ex G.Gaertn., B.Mey. & Scherb. [*Anomobryum julaceum*]
1, (3), 35, 36, (39), 40–50, 52, 57, (59), 60, 64–70, (71), 72–83, 86–92, (93), 94–112. H1–3, 6, 7, 9, (15), 16, 20, 26–29, (30, 31), 33–36, (37), 38–40.
 - 2 **concinatum** Spruce [*Anomobryum concinatum*]

- 6, 36, 40–49, 57, (59), 60, 64, 65, (66), 68, 69, (70), 72, 76, 78–80, 82, 83, 87–90, 92, 94–99, (101), 102–105, 107, 108, 110. H1, 3, 6, 8, 9, 16, 26–29, 31, 33–35, 39, 40.
- 3 **marratii** Hook. & Wilson
41, 44, 46, 48, 49, (54, 59, 60, 62), 68, 70, (75), 82, (85, 90), 101–103, 105, 108, 109. H1, 21, 27, 34, 35, (40).
- 4 **canariense** Brid.
3, 6, 9, 10, (13, 14), 15, (16, 34, 36), 39–41, 44, 45, (47), 49–52, 57, 60. C.
- 5 **argenteum** Hedw.
1–112, H1–40. C.
- 6 **dixonii** Cardot ex W.E.Nicholson
87–90, 92, 96–98, 104–108, 110.
- 7 **gemmiferum** R.Wilczek & Demaret
1–4, 6, (7), 8–38, 40–42, 44–51, 53–68, 70, (71), 72, 75, 80–82, 84–86, 88, 95, 97, 101, (106), 108–111. H4, 5, 7, 8, 11, 12, 14, 18, 19, 21, 22, 24–27, 29, 30, 36, 38, 39. C.
- 8 **gemmilucens** R.Wilczek & Demaret
(6, 9), 11, (13), 20, 22, 25, (27), 28, (29, 34, 38), 53, 54, 56, (62), 63.
- 9 **dichotomum** Hedw.
1–112, H1–40. C.
- 10 **apiculatum** auct., non Schwägr.
1, 2.
- 11 **dyffrynense** Holyoak
1, 15, 48, 52, 59, 69. H16, 27, 35, 40.
- 12 **radiculosum** Brid.
1–43, 45–68, (69), 70–90, 92–94, 96–98, 100, (101), 102–104, (105), 106–109, (110), 111. H1–5, 7, (8), 9–13, (14), 15–23, 25, 27, 29–33, 35–40. C.
- 13 **ruderales** Crundw. & Nyholm
1–70, 72, 75, 76, 78–86, (87), 89, 90, 92–97, (99), 100–103, 105, 107–112. H1–14, (15), 16–22, (23), 24–27, 29–35, 37–40. C.
- 14 **violaceum** Crundw. & Nyholm
1–20, (21), 22–48, (49), 50, 51, 53–66, 68, 70, (71), 72–74, 76, 77, 79–85, 88, 89, 91–96, 98, (99), 101–103, 106–109, 111. H(1), 3–5, 7–9, 11, 13–15, 18, 19, 21–23, 26, 29, 31, 34, 35, (38), 39. C.

- 15 **klinggraeffii** Schimp.
1–20, 22–48, (49), 50–74, 76, 77, 79–83, (84), 85, (87), 88,
90–96, 98, (99), 101–103, 106, (108), 109–112. H(1), 3–26,
(27), 28–32, 34–36, 39, 40. C.
- 16 **sauteri** Bruch & Schimp.
1–5, 9, 11–16, 20, 22, 27, 28, 34–37, 41–52, 57, 60, 62, 63, 66,
69–71, 73–75, (76), 77, 81, (83), 85, (86, 87), 89–94, 96, 98,
(99), 100–104, 106, 107, 109, 111, 112. H1, 3, 4, (6), 7–9, 13,
16, 20, 27, 30, 31, 34, 35, 39. C.
- 17 **valparaisense** Thér.
1.
- 18 **riparium** I.Hagen
41, 43, 44, 46–49, 57, 64, (65, 69, 70), 72, 73, 75, 78, (80),
86–90, (92), 95–98, (99), 101–106, 108–110. H(1, 6), 16, 20,
27, (38).
- 19 **gemmiparum** De Not.
(3), 4, (35), 42. H26.
- 20 **tenuisetum** Limpr.
1, 2, 4, (9), 11, 12, (17), 20, 21, 24, (25), 29, 42, 43, 45–50, 52,
57, 59, (61), 63, 64, (70), 73, 75, 76, 78, 82, 83, (86, 90, 97), 98,
99, 101, 104, 108, 112. H29, 35. (C).
- 21 **subapiculatum** Hampe
1–17, 20–50, 52–69, (71), 72–88, (89), 90–94, 96–98, (99),
101–105, 108–112. H1, 3–6, (10), 12, 13, 15, 16, 20, 22, 23, 27,
(29), 30, 31, 34, 36, (37), 38–40. C.
- 22 **mildeanum** Jur.
(36), 42, 44, (49), 64, (65, 66, 69, 70), 80, (87–89, 91, 92), 97,
(98, 107), 108.
- 23 **muehlenbeckii** Bruch & Schimp.
49, 88, 92, 96–98, (103), 105, (106), 107, (108).
- 24 **alpinum** Huds. ex With.
1–5, 9, (10), 11, 12, (14, 18, 34), 35, 36, 40–50, (51), 52, (55),
57, (58, 59), 60, 63–80, (81), 82, 83, (84), 85–90, 92, 93, 95–112.
H1–9, (13, 14), 15, 16, 20, (21), 24, (25), 26–28, 30, 31, 33–36,
(37), 38–40. C.
- 25 **zieri** Hedw. [*Plagiobryum zieri*]
35, 36, (39–41), 42–44, 47–50, 57, (59), 60, (62), 63–66, (67),
68–70, 72, (73), 75–80, 82, 83, (85), 86–90, 92, 94, 96–99,

- (100), 101–108, (109), 110, 111. H1, 7, 8, 16, 27–29, 34, 35, 39, 40.
- 26 **demissum** Hook. [*Plagiobryum demissum*]
88, (89, 90), 98.
- 27 **warneum** (Röhl.) Brid.
4, (6), 15, (28), 41, (44, 46), 48, (49), 51, 52, 54, (58), 59, (60, 62, 66), 69, (75), 82, (85), 90, (95), 102, 105, 109. H21, 27, 34, 35.
- 28 **calophyllum** R.Br.
(4), 46, 48, (49), 52, (58, 59, 62, 66, 68, 69), 82, (85, 90, 95), 102, 105, 108, (109), 111. H16, 27.
- 29 **arcticum** (R.Br.) Bruch & Schimp.
88, 89, (90), 92, 104.
- 30 **uliginosum** (Brid.) Bruch & Schimp.
(22, 23, 37, 39, 48, 58–64, 68, 70, 72, 77, 82, 85, 86, 88, 90, 92, 108, 109). H(7, 18), 21, (25), 26, (33), 34, (39).
- 31 **pallens** Sw. ex Turner
1–6, (7), 8–20, (21), 22–25, (26), 27–30, (32), 33–73, 75–112.
H1–4, (5, 6), 7–10, (11), 12–20, (21), 22–40.
- 32 **turbinatum** (Hedw.) Turner
(13, 23, 35, 39, 42, 48, 59, 67, 104). H(27).
- 33 **schleicheri** DC.
var. **latifolium** (Schwägr.) Schimp.
86, (88).
- 34 **weigelii** Biehler
40, 49, (64), 65, (68), 69, 70, 72, 77–80, 87–90, (91), 92, (93), 94, (95), 96–98, 103–108, (109, 111). H(6).
- 35 **cyclophyllum** (Schwägr.) Bruch & Schimp.
(69, 70), 83, 86, (98), 99, (101, 105).
- 36 **algovicum** Sendtn. ex Müll.Hal.
var. **rutheanum** (Warnst.) Crundw.
1–4, (5), 6–9, (10), 11, (12), 13–15, (16, 17), 18, (19, 20), 22–29, (30), 31, 32, (33, 34), 36, 37, (39), 40, 41, (42), 43–60, (61), 62–64, (65), 66–70, (71, 72), 73–75, (77, 78, 80), 82–84, (85), 86, (87), 88–97, 100–112. H1–4, (5), 6, (7), 8, 9, (11), 12, (13, 14), 16–20, (21, 22), 23, 25–30, (33), 34, 35, 37, 38, (39), 40. C.
- 37 **salinum** I.Hagen ex Limpr.
(5), 68, 70, (75, 91), 102, 105, (106), 108. H1, (17).

- 38 **knowltonii** Barnes
(4, 9, 19, 20, 22), 24, (25, 26), 28, 47–49, (52), 54, 59, (60, 62),
65, (66), 68, 69, (82, 90), 105, (106). H26.
- 39 **archangelicum** Bruch & Schimp.
1–6, (8), 9–13, (14), 15, (16, 17), 18, (19, 21), 22, (23), 24–26,
28, 29, (30), 32, (33, 34), 35–37, (38), 39–41, (42), 43–60, (61),
62–69, 71, (72, 73), 74, 75, (78), 81–84, (85), 86–98, (99), 100,
101, 103–112. H1–3, (4, 5), 6, 9, 10, (11), 12, 15–18, (20, 21),
22, (23), 24–33, 35, 36, (37), 38–40. C.
- 40 **intermedium** (Brid.) Turton
(1–4, 6, 8), 9, (10, 11), 12, (14), 15, (16–19, 21), 22, (23, 25, 26),
28, 29, 31, (32), 33, (34), 36, (37–39), 40, 41, (44–46, 48, 49),
51–55, (56, 57), 58–60, (61–63), 64, (65), 67–70, (73, 74), 81,
82, (83, 85, 86, 90–92, 97, 104), 109. H(4), 21, 26, (34), 38, 39,
(40).
- 41 **donianum** Grev.
1–6, (7), 8–14, (15–17), 18, 19, 23, 25–29, 34–37, 40–42,
44–50, 52, (53), 57, (59), 60, (71), 74. H1, 3–7, 9, 11, 12, 19–21,
(22), 23, 27, 28, 40. C.
- 42 **capillare** Hedw.
1–112, H1–40. C.
- 43 **elegans** Nees ex Brid.
(14), 33, (36), 40, 42, 47, 50, 57, 59, 60, 64–66, (68), 69, 70,
(81), 82, (87), 88–90, 92, 94, 95, 97, (98), 108. H28, 29.
- 44 **moravicum** Podp.
3–45, 47, 48, 50, 51, 53–70, 72, 74, 75, 78–85, 88, 89, 92–96.
H1.
- 45 **torquescens** Bruch & Schimp.
1–3, 5, 6, 8–12, (13), 14, 15, (16), 19, (23), 24, 26, (28), 29, 32,
33, (34, 36), 37, 41–43, 45, 47–50, 52, (54), 60, 63, (64, 66, 71,
75, 86, 87, 106). H(2, 5, 7, 9), 10, 11, (16, 21, 25), 33, 34, 39, 40.
C.
- 46 **creberrimum** Taylor
6, (9, 11, 13), 14, (16), 17, (23, 29, 34), 40, (42), 43, 49, 50, (57,
58), 59, (60, 61, 66, 69, 70, 77, 88), 89, 95, (96, 106). H4, 15,
21.
- 47 **pallescens** Schleich. ex Schwäger.
1–3, 6, 8, 9, 11, 13–15, (16), 17, (18), 19, 22, 23, 25–29, 31,

- 32, (34), 35–52, 55, 57–60, (61, 62), 63–65, (66, 67), 68, (69), 70–74, 78, (80), 81–83, (85), 87, (88), 90, 92–97, (98), 102, 104, 105, 107, 108, 110–112. H1–4, 7, 9–13, 15–18, 20, 22, 25–30, 32–36, (38), 39, 40. C.
- 48 **pseudotriquetrum** (Hedw.) G.Gaertn., B.Mey. & Scherb.
a var. **pseudotriquetrum**
1–3, 18, 28, (29), 42, 46, 47, 49, 57, 59, 64, 65, 68, 70–73, 82, 88–92, 102, 104–107, 109, 110, 112. H1–3, 7, 9, 12, 15–18, 21, 25–31, 33–35, (37), 38–40.
b var. **bimum** (Schreb.) Sw.
(1–3), 5, (6), 9, (10, 11), 12, (16), 17, (18), 19–22, (23), 24, 26, (27), 28–33, (34), 35, (36–38), 41, 44–46, 50, 51, (52), 53, 54, (55), 58–61, 63, (64), 66, (68), 69, 70, 75, 77, (81, 83, 86, 88, 90, 92), 96, (98), 99, (101, 106), 107, 109. H1, 2, 4, (9), 10, (11), 12, 15–18, (20, 23), 25–27, (28, 32), 33, 35, (38), 39, 40. (C).
- 49 **caespiticium** Hedw.
1, (2), 4, 5, 8, 9, 11, 12, 14–19, 22, 25, 28–30, (31), 32, (33), 35, 36, (37), 38, 44, 47–51, 53–55, 57–60, (61, 62), 63, 65, 67, (72), 75, 77, 80–83, (85, 87, 88), 90, (92), 94, 98, (99), 101, (108), 109. H(7), 11, 18, 26, 31, (39).
- 50 **kunzei** Hornsch.
1, 3, 6, (9, 14), 35, (36), 40, 41, 43, 47, 49, 51, 52, (57, 63, 66).
- 51 **bornholmense** Wink. & R.Ruthe
1–3, (5), 7–9, 11–17, 19, 20, 22–30, 36, 37, 39, (40), 41, 43–45, 47–50, (55), 56, 57, 60–62, 64, (67, 69), 72, 73, 79, 83, (86, 88, 90), 92, (95), 98, 102, (103, 105, 106), 110, (112). H(1), 2, 8, 21, 22, 35, 40.
- 52 **rubens** Mitt.
1–70, (71), 72–112. H1–29, 31, 33–35, (36), 37–40. C.
- 111 **Rhodobryum** (Schimp.) Limpr.
1 **roseum** (Hedw.) Limpr.
(2), 3–9, (10), 11–14, (15), 16, 17, 19, (20, 21), 22–24, (25), 26, (27), 28, (29), 30, 32, 33, (34), 35–37, (38), 39–52, 54, 55, 57, (58, 59), 60, 62, (63, 64), 65–70, (71), 72, (73, 74), 75, (76, 77), 78–84, (85, 86), 87–89, (90, 91), 92, 95–98, (99, 100), 101–105, (106), 107, 108, 110, 112. H(2, 4–6, 8), 9, 11, (15), 16, (18, 20), 22, 26, 27, (29), 31, 33, 35, (36, 38), 39, 40.

112 *Mielichhoferia* Hornsch.

- 1 **elongata** (Hoppe & Hornsch. ex Hook.) Hornsch.
62, 92, 108.
- 2 **mielichhoferiana** (Funck) Loeske
92, 98.

113 *Pohlia* Hedw.

- 1 **elongata** Hedw.
a var. **elongata**
2, (4, 11), 35, 40–50, 57, 59, 60, 63–70, 72, (73), 75, 76, 78,
86–89, (90), 92, 94, 96–98, (99), 100, 101, 103–108, 110. H1, 3,
(6), 7, 8, 16, 20, 27, 29, 34, 35, (38), 40.
b var. **greenii** (Brid.) A.J.Shaw
49, (69), 70, (73, 86), 87, 88, (89, 90, 92, 96), 97, 98, (99), 100,
103, (104), 105, 106, (107), 108. H(1), 7, 16.
- 2 **crudoides** (Sull. & Lesq.) Broth.
(96).
- 3 **cruda** (Hedw.) Lindb.
3, (4), 35, 36, 40, 42–44, 46–50, 57, 59, 60, (62), 63–70, 72,
(73), 75–99, (100, 101), 103–110, 112. H1, 2, 6–8, 10, 16, (20,
21), 27–29, 33–35, (38), 39, 40.
- 4 **nutans** (Hedw.) Lindb.
1–112, H1–4, (5), 6–13, (14, 15), 16–18, (19), 20–25, 27–30,
(32), 33–40. C.
- 5 **obtusifolia** (Vill. ex Brid.) L.F.Koch
(88), 94, 96, 97, 105.
- 6 **drummondii** (Müll.Hal.) A.L.Andrews
1–3, (7, 11), 12–14, (22), 27, 38, 40–49, 57–60, (62), 63–68,
(69), 72, 73, 75, 78–80, (81), 82–90, 92, 94–100, 103–108, 110,
112. H1, 3, 5, 12, 16, 27–29, 31, 34–36.
- 7 **scotica** Crundw.
87, 88, 96–99, 105, 106, 108.
- 8 **filum** (Schimp.) Mårtensson
2, (17), 43, 44, (60), 67, 73, (74), 83, (85, 86), 87–90, 92–99,
101, 105–107, (108), 112. H(6), 27, 35, 36, 40.
- 9 **andalusica** (Höhn.) Broth.
1–3, 88, 105. H3, 6.
- 10 **bulbifera** (Warnst.) Warnst.
2, 3, 5, 12, 27, 36, (38), 40, 42–50, 57–60, 63, 64, 67, 69, 70,

- 73–78, 81–84, 86–90, 92–100, (101), 102–108, 110, 111. H1, 3, (4), 6, 11, 16, 26–31, 34, 35, 38, (39).
- 11 **annotina** (Hedw.) Lindb.
1–25, (26), 27–30, 32, 34–36, (37), 38–52, 54–110, 112. H1, (2), 3, (4), 5–10, 12–14, 16, (19), 20, (21), 25–30, (31), 33–40. C.
- 12 **proligera** (Kindb. ex Breidl.) Lindb. ex Arnell
(37), 50, (69), 77, (80, 81, 86), 88–90, 92, (93), 94–96, (97), 106. H(40).
- 13 **camptotrachela** (Renauld & Cardot) Broth.
1–5, (6), 10, (11), 17, 23, 39–50, 52, 57–60, 62–65, 68–78, 80–100, (101), 102–109, 111, (112). H1–4, 6, 9, 10, 12, 16, 20, 26, 27, 30, 32–36, 38–40.
- 14 **flexuosa** Harv.
1–5, 41, 42, 44, 46–49, 57, 59, 60, 63–65, 69, 70, 72–75, 77, 78, 80, 83, 86–88, 95–100, (101), 102–106, 108, 110. H(1), 2, 3, (6), 7, 9, 16, 20, 27–29, 34, 36, 39, 40.
- 15 **ludwigii** (Spreng. ex Schwäger.) Broth.
(48), 49, (65), 68, (69, 70, 86), 87–90, 92, 94, 96–98, (99), 104–107, (108).
- 16 **lutescens** (Limpr.) H.Lindb.
1–20, 22–27, 29, 30, 32–52, 55–60, 62–64, 66–68, (69), 70, (71), 72–74, 78–83, 86, 89, 92, 93, 95, 96, 98–100, (101), 104, 107, 109. H(2), 3, 6, 8–10, 12, 20, 27, 33, 36, 37. C.
- 17 **lescuriana** (Sull.) Ochi
1–3, 6, 8, 10–17, 20, 21, 24, 29, 33–35, 39–41, 43–50, 57–60, 63, 64, 71, 76–78, 80, 85, 86, 88, 90–92, 96, 98, 99, 107–109. H3, 4, 8, 35.
- 18 **melanodon** (Brid.) A.J.Shaw
1–75, (76), 77–85, 88–95, 97–112. H1–40. C.
- 19 **wahlenbergii** (F.Weber & D.Mohr) A.L.Andrews
a var. **wahlenbergii**
1–20, (21), 22–112. H1–40.
b var. **glacialis** (Schleich. ex Brid.) E.F.Warb.
49, (68, 69), 78, 88, (89), 90, 92, 94, 96–98, 103–106, (107). H2, (28).
c var. **calcarea** (Warnst.) E.F.Warb.
(1), 2, (10, 14, 17), 25, (64). H16, 34, (35), 39.

114 *Epipterygium* Lindb.

1 **tozeri** (Grev.) Lindb.

1–6, 8–19, 33, (34), 35, (36), 37, (40), 41–50, 52, 71, 93, (98),
101, 102. H1–6, 8, 9, 12, 20, 29, (34), 37–40. C.

115 *Mnium* Hedw.

1 **hornum** Hedw.

1–112, H1–40. C.

2 **spinosum** (Voit) Schwägr.

88–90, 92, (96), 97, 98.

3 **thomsonii** Schimp.

39, 44, 49, 57, 60, 64, 65, (69, 70, 72), 87–90, 94, 96–98,
104–106, 108. H9, 16, 28, 29, 33, 35.

4 **lycopodioides** Schwägr.

88, (90).

5 **marginatum** (Dicks.) P.Beauv.

a var. **marginatum**

(2, 3), 8, (13, 14, 22, 26), 33–37, 39, (40), 41, 42, 44, (46),
48–50, (52–54), 56, 57, 59, 60, (62), 63–67, (68), 69, 70, (72,
73), 75–77, (78), 79–83, (84–86), 87–92, 94, 96–98, (99, 101),
102–106, (107), 108, (109), 111, 112. H(1, 6), 7, 11, 16, 19, 20,
28, 29, 33, (34), 35, 39, (40).

b var. **dioicum** (H.Müll.) Crundw.

(13), 35, 41, 50, 57, (62), 63, (65, 88). H40.

6 **stellare** Hedw.

3–6, (7), 8–13, (14), 15–17, 19, 22–24, 27, 32–37, (38), 39–
54, (55), 56–70, (71), 72, 73, 75–91, (92), 94–108, 110–112.
H2, 6, 8–11, 16, (20), 21, (23), 28–30, 33, 34, (35), 36, 39,
(40).

116 *Cinclidium* Sw.

1 **stygium** Sw.

(26), 27, (28, 48, 60), 64–66, 69, 70, 79, 80, (87), 88, 89, (90),
92, 95, 96, (97), 98, 102, 104, 105, 108, 112. H9, 23, 28, 29,
39.

117 *Rhizomnium* (Broth.) T.J.Kop.

1 **punctatum** (Hedw.) T.J.Kop.

1–51, (52), 53–112. H1–21, 23–40. C.

2 **magnifolium** (Horik.) T.J.Kop.

87, 88, 90, 92–94, 96–98, 105–107.

- 3 **pseudopunctatum** (Bruch & Schimp.) T.J.Kop.
(3), 4, (6), 11, 12, (14, 18), 22, 25–28, 35, (37), 38–52, 57–60,
62–70, 72, (73, 74), 75, 76, (77), 78–81, 83, (84), 85, (86), 87–90,
(91), 92–98, 101, 102, (103), 104–112. H(2), 6, (12), 13, 15, 16,
19, (21), 22, 26–30, (31, 32), 33, 35, (36), 38, 39, (40).
- 118 **Plagiomnium** T.J.Kop.
- 1 **cuspidatum** (Hedw.) T.J.Kop.
1–4, (5), 6, (7), 8, (9), 10, (12), 13–17, (19), 20, 22, (23),
24, (25), 26–29, (30, 32), 33–37, (38), 39–52, 55–70, 72, (73),
75, (76), 77, 79–84, (85, 86), 87, 88, (89), 90, (91, 92), 93,
95–99, 101–105, 107–110, 112. H(1), 2–4, (7), 12, (15), 16,
(17, 20, 21, 24), 25–27, (28), 29, 30, (32), 33, 34, (35, 36),
38–40.
- 2 **affine** (Blandow ex Funck) T.J.Kop.
1–66, 68–70, 72–77, 80–83, (84), 85, (86), 87–102, (103),
104–106, 110. H1, 3, 4, 8, 10, (12, 14), 15, 17, 19–21, 25, 26, 33,
35, (36), 38–40. C.
- 3 **medium** (Bruch & Schimp.) T.J.Kop.
88, 90, 92, (97), 98, 103, 106, 108.
- 4 **elatum** (Bruch & Schimp.) T.J.Kop.
4–6, (7), 8, 9, (10), 11–15, (17, 18), 19, 20, 22–29, (30), 32,
33, 35, 36, (37), 38–53, (54), 55–70, (71), 72, 73, (74), 75–98,
(99), 100–112. H2, 3, (5), 7, (8), 9–11, 13, (14), 15, (16), 17–19,
21–36, 38–40.
- 5 **ellipticum** (Brid.) T.J.Kop.
1, 3, 6, (14, 17, 21), 22, 23, (24), 25–29, 32–35, 38–42, (43),
44–46, 48–50, 52–60, 62–70, (71), 72–83, 85, 86, (87), 88–112.
H1, (6, 7), 8, (9), 10, (15), 16, (17), 19, 20, 22–25, 27–37, (38),
39, (40).
- 6 **undulatum** (Hedw.) T.J.Kop.
1–112, H1–40. C.
- 7 **rostratum** (Schrad.) T.J.Kop.
(2), 3–6, (7), 8–37, (38), 39–51, (52), 53–108, (109), 110–112.
H1–11, 13, 14, 16–30, (31), 32–35, (36), 37–40. (C).
- 119 **Pseudobryum** (Kindb.) T.J.Kop.
- 1 **cinclidioides** (Huebener) T.J.Kop.
46, 48, 49, 68–70, (72, 73), 75, 76, 78–83, 88, (89), 90, (91), 92,
93, (94), 95–98, (99), 105, (106), 107–109, 112.

120 *Zygodon* Hook. & Taylor

- 1 **viridissimus** (Dicks.) Brid. [*Zygodon viridissimus* var. *viridissimus*]
1–112, H1–40. C.
- 2 **stirtonii** Schimp. ex Stirt. [*Zygodon viridissimus* var. *stirtonii*]
1–6, 9–16, (17), 18–20, 24–29, 31, (32), 33–37, 39–53, 56, 57, 60, 62–65, (68), 69–77, 79–91, 93–95, (97), 98, (99), 100–109, 111, 112. H1, 2, (3), 4, 5, (6), 8–11, (13), 16–18, 20–23, 25, 27–30, (31), 33–35, 38–40. (C).
- 3 **rupestris** Schimp. ex Lorentz
2–14, 16, 17, 19, 21–23, 25, 26, 28, 29, 31, 33–36, 39–50, 54, 57, 60, 63, 67, 69, 70, 72, 73, 75–77, 79–84, 86–90, 92–99, 101, 102, 104, 105, 107, 108, 110, 112. H1–4, 6, 7, (14), 16, 20, 28, 38, 39.
- 4 **conoideus** (Dicks.) Hook. & Taylor
a var. **conoideus**
1–77, 79–83, 85–88, 90, (91), 93, 95–108, 110, 112. H1–11, (12), 13–40. C.
b var. **lingulatus** S.R.Edwards
17.
- 5 **gracilis** Wilson
64.

121 *Codonoblepharon* Schwägr.

- 1 **forsteri** (Dicks.) Goffinet [*Zygodon forsteri*]
(5), 11, 18, 19, 24, (37).

122 *Orthotrichum* Hedw.

- 1 **anomalum** Hedw.
1–112, H1–13, (14), 15–40. C.
- 2 **cupulatum** Brid.
1–8, (9), 11–54, (55), 56–73, (74), 75–85, (86), 87–98, 100–112.
H1–31, (32), 33–40. C†.
- 3 **pulchellum** Brunt.
1–104, (105), 106–112. H1–13, (14), 15–23, (24), 25–30, 32–40.
C.
- 4 **columbicum** Mitt. [*Orthotrichum consimile*]
(13), 20, 24, 56, 57, 61, 63, 69.
- 5 **rivulare** Turner
2–5, (9, 13, 14, 16, 17, 33), 34–37, (38, 39), 40, 42–50, 52, (55, 57), 60, 62–70, 72, (73), 75–91, (92), 93, (94), 95, 96, 106. H1,

- 2, 4–6, 8, 9, (13, 20, 21), 28–31, 34, 36, 38–40.
- 6 **sprucei** Mont.
2–6, 8, 9, 11, 13, 14, 16, (17, 19), 24, (32), 33–37, (38), 39–50, 54, (55), 57, (58), 59–65, 67–70, 72, (73), 75, 79, 80, 88. H4–6, 12, 29, 36–38, (39).
- 7 **diaphanum** Brid.
1–98, (99), 100, (101), 102–112. H1–40. C.
- 8 **scanicum** Grönvall
17, 57.
- 9 **rogeri** Brid.
14.
- 10 **pallens** Bruch ex Brid.
13, 14, 20, 24, 35, 50, 57, (60, 62), 63, 64, (65), 66, 94, 97, (106). H(4), 13, (20), 26.
- 11 **pumilum** Sw. ex Turner
26, 28, 35, 57, 65, 66, 78.
- 12 **schimperi** Hammar
20, 24, (26), 29, 35, (62, 90), 91.
- 13 **tenellum** Bruch ex Brid.
1–15, (16), 17–53, 55–60, (61), 62–78, 80–83, 86, 88–91, 97, 98, (99), 100, (101), 103, 104, 106, (110). H(1), 2–13, (15), 16, 18–22, 24–29, 31–34, 36, 38–40. C.
- 14 **cambrense** Bosanquet & FLara
44.
- 15 **alpestre** Hornsch. ex Bruch & Schimp.
94.
- 16 **stramineum** Hornsch. ex Brid.
3–14, 16–73, (74), 75–100, 103–108. H(2, 10), 11–13, 20, 21, 31, (38, 39).
- 17 **patens** Bruch ex Brid.
25, 57.
- 123 **Lewinskya** FLara, Garilleti & Goffinet
- 1 **rupestris** (Schleich. ex Schwägr.) FLara, Garilleti & Goffinet
[*Orthotrichum rupestre*]
2, (3), 4, (6), 7, 21, (22), 28, (34), 36, (38, 40), 43, 47, 48, (49), 50, 52, 57, (59–61), 63, 65–68, (69–71), 72, (73), 74, 75, 78–83, 85, 86, (87), 88–90, (91), 92–98, (99), 100–112. H(1), 2, 8, 12, 16, (20, 21), 24, (25, 26), 27, (28), 29, 34, 35, (37–39), 40.

- 2 **shawii** (Wilson) F.Lara, Garilleti & Goffinet [*Orthotrichum shawii*]
(75).
- 3 **striata** (Hedw.) F.Lara, Garilleti & Goffinet [*Orthotrichum striatum*]
1–36, (37), 38–59, (60), 61–73, 75–77, (78), 79, (80), 81, (82), 83, 84, (85, 86), 87–100, (101), 103–108. H1, 2, (3), 4–13, (14), 15–20, (21), 23, (25), 26, 28–30, (31), 32, 33, 36, 38–40. C.
- 4 **acuminata** (H.Philib.) F.Lara, Garilleti & Goffinet [*Orthotrichum acuminatum*]
36, 57.
- 5 **speciosa** (Nees) F.Lara, Garilleti & Goffinet [*Orthotrichum speciosum*]
9, (13), 14, 20, 24, 25, 28, 29, 57, 58, 62–64, 66, (88–90), 92, (94), 95, 96, 106.
- 6 **affinis** (Schrad. ex Brid.) F.Lara, Garilleti & Goffinet [*Orthotrichum affine*]
1–102, (103), 104–111. H1–40. C.
- 124 **Plenogemma** Plášek, Sawicki & Ochyra
 - 1 **phyllantha** (Brid.) Sawicki, Plášek & Ochyra [*Ulota phyllantha*]
1–98, (99), 100–112. H1–13, (14), 15–40. C.
- 125 **Pulviger** Plášek, Sawicki & Ochyra
 - 1 **lyellii** (Hook. & Taylor) Plášek, Sawicki & Ochyra [*Orthotrichum lyellii*]
1–29, (30), 31–50, (51), 52–73, (74), 75–83, 85–98, (99, 100), 101, 103, 105–107, 109. H2, 4–7, (8), 9–13, (14), 18–24, 27, 30–33, 36, (37), 38–40. C.
- 126 **Ulota** D.Mohr
 - 1 **coarctata** (P.Beauv.) Hammar
(5, 11), 12–15, 17, 24, 25, (27), 28, 37, 48, 56, (79, 86), 87, 88, (90, 96), 97, 98, 104, 105, (106). H2.
 - 2 **hutchinsiae** (Sm.) Hammar
(2, 3), 4, (7, 44), 48, 49, (62, 65), 67, (69, 70, 73), 75, (86), 87, 88, (89–91), 92, 95–98, (99), 101–108, 110, 112. H1–3, (4), 6, (15), 16, (20), 27, (28, 30, 32, 34), 35, (37, 38, 40).
 - 3 **drummondii** (Hook. & Grev.) Brid.
42, 43, 46–49, (60), 63, (65), 66–70, 72, (73), 75–83, 85–90, (91), 92–108, (109, 111). H(2, 6, 7, 20, 35, 39).

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- 4 **bruchii** Hornsch. ex Brid.
1–112, H1–40. C.
- 5 **crispula** Bruch
1–3, 10, 11, 14, 16, 22, 24–26, 28, 31, 32, 35, 38, 41, 43–49, 53,
55, 57, 61, 69, 71, 79, 82, 83. H20, 21. C.
- 6 **intermedia** Schimp.
4, 10, 11, 15, 16, 24–26, 36, 38, 41, 42, 46, 48, 52, 55–58, 63, 64,
67, 68, 71–73, 75, 80, 89, 100, 105–107, 110. H(2), 20, 36.
- 7 **crispa** (Hedw.) Brid.⁷
1, 2, 4–6, 8–12, 14, 17, 18, 24–26, 28, 29, 31–36, 42–44, 46–52,
54–58, 61–65, 69–72, (73), 75, 76, 80, 81, 83, 85, 87, 88, (97),
98, 100, 104, 105, 110. H1, (2), 20, 35. C.
- 8 **calvescens** Wilson
1, 2, 5, 6, 9, 13, 14, 17, 24, 32, 34–36, 38–40, 42–47, (48), 56–60,
62–65, 67–69, 72–76, (86), 87, 97, 98, 100–105, (106), 108,
110, (112). H1–3, 7–10, 12, 14–18, 20, 24, 26–30, 32–36, (39),
40.
- 127 **Nyholmiella** Holmen & E.Warncke
- 1 **gymnostoma** (Bruch ex Brid.) Holmen & E.Warncke [*Orthotrichum gymnostomum*]
92, 96.
- 2 **obtusifolia** (Brid.) Holmen & E.Warncke [*Orthotrichum obtusifolium*]
18, 21, (22–24), 28, 29, 31, (32), 33, (36, 38), 46, 57, 63, (65),
88, (90, 91), 92–96.
- 128 **Orthodontium** Schwägr.
- 1 **lineare** Schwägr.
1–70, (71), 72–102, 106, 107, 109, 110. H2, 5–9, 11, 18–22, 27,
29, 30, 32, 33, 36, (37), 38–40. C.
- 2 **gracile** (Wilson) Schwägr. ex Bruch & Schimp.
(3), 14, 34, (39, 40, 50, 51, 55), 58, 64, (68, 70, 75, 77), 83, (86).
H33.
- 129 **Leptotheca** Schwägr.
- 1 **gaudichaudii** Schwägr.
1†, 2†, 34†, 105†. H1†.

7 The distribution of *Ulotia crispa* s.lat., as defined by Smith (2004), and including *U. crispula* and *U. intermedia* is: 1–29, (30), 31–77, 79–112. H1–12, (13), 14, (15), 16, 18–30, 32–40. C.

- 130 **Calomnion** Hook.f. & Wilson
1 **complanatum** (Hook.f. & Wilson) Lindb.
H1†.
- 131 **Aulacomnium** Schwägr.
1 **palustre** (Hedw.) Schwägr.
1–22, (23), 24–32, (33), 34–112. H1–40. C.
2 **turgidum** (Wahlenb.) Schwägr.
(65), 88, 96–98, 103–107, (108).
3 **androgynum** (Hedw.) Schwägr.
(2, 3), 4–51, 53–70, 72, (73), 75–77, 80, 81, 83–90, (91), 92–97,
99, 100, 104–109. H2, 11, (18), 20, 30, 31, 33, (37–40).
- 132 **Achrophyllum** Vitt & Crosby
1 **dentatum** (Hook.f. & Wilson) Vitt & Crosby
1†.
- 133 **Calyptrochaeta** Desv.
1 **apiculata** (Hook.f. & Wilson) Vitt
1, 2, 14. H5.
- 134 **Daltonia** Hook. & Taylor
1 **splachnoides** (Sm.) Hook. & Taylor
41, 42, 44, 46, 48, 59, 63, 97–99, 104, 105. H1–6, 8–10, 14, 18,
20, (21), 27, 29, 30, 33, 36.
- 135 **Hookeria** Sm.
1 **lucens** (Hedw.) Sm.
1–6, 8–17, (18), 22, 24–29, 34–37, (38), 39–52, 55, 57–60,
62–90, (91), 92–112. H1–18, 20, (21), 22, 24–40. C.
- 136 **Cyclodictyon** Mitt.
1 **laetevirens** (Hook. & Taylor) Mitt.
1, 102. H1, 2, (3, 4, 6), 27, (29).
- 137 **Fontinalis** Hedw.
1 **antipyretica** Hedw.
a subsp. **antipyretica** [*Fontinalis antipyretica* var. *antipyretica*]
1–112, H1–40. C.
b subsp. **gracilis** (Lindb.) Kindb. [*Fontinalis antipyretica* var. *gracilis*]
1–3, 5, (19), 42–44, 46, (48), 49, (57, 59), 60, (63), 64, 65, 67,
(68, 69), 70, (71), 72, (74), 75–79, (80), 83, (88–91), 92, (93),
96, 98, (100), 104, (105, 106), 107, (108), 109, 110, 112. H(7),
9, 16, 27, 39, 40.

- 2 **squamosa** Hedw. [*Fontinalis squamosa* var. *squamosa*]
 1–5, (36, 37), 39–50, 57, 58, (59), 60, 62–75, (76), 78–80,
 86–88, (89), 90, (91), 92–98, (99), 100–102, 104–110. H1–8,
 12, 13, 15, 16, 20, 21, 27, 30, (33, 34), 35, (36, 37), 38, 40.
- 138 **Myurella** Bruch & Schimp.
- 1 **julacea** (Schwägr.) Schimp.
 (49), 64, (65, 87), 88–90, 92, 94, 96–98, 101, 104, (105, 107),
 108, 110. H(6), 28, 29, 34, 40.
- 2 **tenerrima** (Brid.) Lindb.
 88, (90).
- 139 **Platydictya** Berk.
- 1 **jungermannioides** (Brid.) H.A.Crum
 6, 34–36, (40), 42–45, 47, (48, 49), 50, 57, (59), 63–65, (66, 69,
 70, 72), 75, (76), 80, 82, (86), 87–90, (92), 94, 96–98, (99), 101,
 104, 106, 108, 110. H(2), 3, 11, 28, 29, 33, 35.
- 140 **Orthothecium** Bruch & Schimp.
- 1 **rufescens** (Dicks. ex Brid.) Schimp.
 42, (48), 49, (62), 64, (65), 69, (86), 87–90, (92), 96–99, (103),
 104, 105, (107), 108, 111. H9, 28, 29, 33, 35.
- 2 **intricatum** (Hartm.) Schimp.
 (4), 6, 34–36, 39, 41–44, 46–50, 52, 57, (59), 60, 62–67, 69, 70,
 (71), 72, (73, 75), 76, (77, 78), 79, 80, 83, 86–92, 94, 96–99,
 (100, 101), 102–108, 110, 111, (112). H1–3, 6–9, 16, 27–30, 33,
 (34), 35, 36, 39, 40.
- 141 **Plagiothecium** Bruch & Schimp.
- 1 **latebricola** Schimp.
 2–27, 31, 32, (33, 34), 35–37, (38), 39, 40, (41), 43–51, 54–58,
 (59), 62–64, (65, 81, 86). H29.
- 2 **piliferum** (Sw.) Schimp.
 (88, 90).
- 3 **denticulatum** (Hedw.) Schimp.
 a var. **denticulatum**
 1–6, (7), 8–50, (51), 52–112. H3, 4, 6, 8, 10, (12), 13, 15, 17–20,
 22, (24), 25, 26, 28, 30, 33, (36–38), 39, 40. C.
 b var. **obtusifolium** (Turner) Moore
 2, 4, 42, 44, 46, 48, 49, 64, (65), 69, 70, 72, 75, 78, 86–92,
 94–100, (101), 104–106, (107), 108, 110. H1, (3), 7, 8, 16, 27,
 (35, 40).

- 4 **laetum** Schimp.
12–16, 18–20, 22, 25–29, 32–36, 39, 40, 43, 47–51, 54–58, 60, 62–70, 75, 77, 78, (79), 81, 83, 86–89, (90, 91), 92, 94–96, 98, (99), 101, 105, (106), 109. H8, 20, (21, 33).
- 5 **curvifolium** Schlieph. ex Limpr.
2–40, 42–44, 46–51, 53–70, 72–75, 77–85, (86), 87–96, (98), 99, 103, 106, (107). H20, 29, 36, 40. C.
- 6 **platyphyllum** Mönk.
47, 49, (69), 70, 88, 89, (90), 92, 94, 96–99, 105–108. H6, 7, 20, 27.
- 7 **cavifolium** (Brid.) Z.Iwats.
1, 2, 26, 27, 42, (46), 47, 48, (49, 60, 62), 65, 69, (70), 78, (81), 82, 83, 88, 90, 92, 93, 95–98, 101, (103), 104–106, 108, 112. H1, 6, 27, 34.
- 8 **succulentum** (Wilson) Lindb.
1–28, 30–112. H1–12, 14, 16, (17), 18, 20–22, (24), 25–36, 38–40. C.
- 9 **nemorale** (Mitt.) A.Jaeger
1–71, (72), 73–77, 79, (80), 83–87, (88), 90, (91), 92, 93, 95–105, 108, 110–112. H1–11, 13, 15, (16), 19–21, (25), 27, (28), 29, (30), 31, 33–40. C.
- 10 **undulatum** (Hedw.) Schimp.
1–30, 32, 34–112. H1–10, 12–18, 20–23, 25–40. C.
- 142 **Isopterygiopsis** Z.Iwats.
 - 1 **muelleriana** (Schimp.) Z.Iwats.
49, 87–89, (90), 96–98, 103–107, (108). H1, 16, 27.
 - 2 **pulchella** (Hedw.) Z.Iwats.
(3), 5, 35, 36, 39, 41–44, 46–50, 57, 59, 60, (62), 63–66, (67), 68–70, 72, (73), 75–83, (85), 86–90, (91), 92–108, 110–112. H1–3, 6–8, 10, 16, (20), 27, 28, (29, 33), 34, 35, 38, 39, (40).
- 143 **Pseudotaxiphyllum** Z.Iwats.
 - 1 **elegans** (Brid.) Z.Iwats.
1–112, H1–16, 18, (19), 20–22, (23), 25–40. C.
- 144 **Herzogiella** Broth.
 - 1 **striatella** (Brid.) Z.Iwats.
(71), 86–88, (89), 90, 92, 94, 96–98, (99), 105–108.
 - 2 **seligeri** (Brid.) Z.Iwats.
3, 5–17, (19), 20–29, 31–37, 41, 43, 54, (61), 62.

- 145 *Pterigynandrum* Hedw.
 1 **filiforme** Hedw.
 26, 29, (42), 49, (57, 68–70, 72), 79, 87–90, 92–98, 104–108,
 (112). H(20, 21, 38, 40).
- 146 *Habrodon* Schimp.
 1 **perpusillus** (De Not.) Lindb.
 (3, 4), 5, 6, 9, 36, 41, 42, 44, 47, 60, (65, 69, 70, 75), 78, 88, 90,
 94, 97–99, (100).
- 147 *Climacium* F.Weber & D.Mohr
 1 **dendroides** (Hedw.) F.Weber & D.Mohr
 1–9, 11–20, (21), 22, 23, (24), 25–31, (32–34), 35–112. H1–4,
 (5), 6, 7, (8), 9, 10, (11, 12), 13–30, 32–40.
- 148 *Myrinia* Schimp.
 1 **pulvinata** (Wahlenb.) Schimp.
 9, 13, (14, 17, 30), 33, 35, 36, 40, (42, 43), 44, 47, 48, 50, (59),
 60, (61), 62, (63), 64, 65, 69, (73, 77, 87), 88, 89.
- 149 *Kandaea* Jan Kučera & Hedenäs
 1 **elodes** (Lindb.) Jan Kučera & Hedenäs [*Campyliadelphus elodes*]
 1, (4), 7, 9, 11, 12, 15, (17), 18, 19, 22, (24), 26–30, 34, (38),
 41, 44, 46–49, 51, 52, 54, (55), 59, 60, (61, 62), 64, (65), 67–70,
 (73), 79–82, (85, 87, 89), 90, (96), 97, 98, 101–104, (105),
 106–110, 112. H2, (7), 8–10, (12, 15), 16, 17, (18), 19, (20),
 21–23, (25), 26, 28, (30), 33–35, (36, 37), 38, (39, 40).
- 150 *Cratoneuron* (Sull.) Spruce
 1 **filicinum** (Hedw.) Spruce
 1–112, H1–40. C.
 2 **curvicaule** (Jur.) G.Roth
 88.
- 151 *Palustriella* Ochyra
 1 **commutata** (Hedw.) Ochyra
 1–7, 9, (10), 11–15, (16), 17, 19, (20), 22–28, (29, 30), 32–37,
 (38), 39–112. H1–4, (5), 6–11, (13), 14, 16, (17), 18–23, (24),
 25–31, (32), 33–40. (C).
 2 **falcata** (Brid.) Hedenäs
 (1, 2), 3–5, (6, 7), 9, 11, (12, 14, 18), 22, 23, (25), 26–28, (29),
 32, 33, (34), 35–37, (38), 39–50, (51), 52, 53, (54), 55, 57, (58),
 59, 60, (61), 62–70, (71), 72–85, (86), 87–112. H1, (2), 3, 8, 9,
 11, (12, 13), 14, 16–20, 22–31, 33–36, (37, 38), 39, 40.

- 3 **decipiens** (De Not.) Ochyra
88–90, (91), 92, 96, 97, (98), 106.
- 152 **Campylium** (Kindb.) R.S.Chopra
 - 1 **bambergeri** (Schimp.) Hedenäs, Schlesak & D.Quandt
[*Hypnum bambergeri*]
88, (89), 90, 92, (96), 97, 98, 108.
 - 2 **stellatum** (Hedw.) Lange & C.E.O.Jensen
1–9, 11–13, (14), 15, (16), 17, (18), 19, 20, 22–29, (30, 31),
32–37, (38), 39–112. H1–3, (4), 5–40. C.
 - 3 **protensum** (Brid.) Kindb.
1–3, (4), 5, 6, 8–20, (21), 22–24, (25), 26, 28–30, (31), 32–37,
(38), 40–42, 44–75, (76), 77, 78, 80–84, (86), 87–92, 94–98,
100–106, 108–112. H1–3, (4), 5, 7–11, 15–17, (18), 19, 20, 22,
23, 25–31, 33–36, (37), 38–40.
 - 4 **chrysophyllum** (Brid.) Lange [*Campyliadelphus chrysophyllus*]
1, (2), 3–24, 26–30, 32–70, (71), 73, 75, (76), 79–85, (86), 88,
89, (90), 92, 94, 96–98, 101–105, (106), 107–112. H1, 2, 5,
7–11, (12), 13, (14), 15–19, (20), 21–29, (30, 31), 33–35, (36,
37), 38–40. (C).
- 153 **Amblystegium** Schimp.
 - 1 **serpens** (Hedw.) Schimp. [*Amblystegium serpens* var. *serpens*]
1–112, H1–40. C.
- 154 **Hygroamblystegium** Loeske
 - 1 **fluviale** (Hedw.) Loeske
1–6, 17, 18, 22–24, (33, 34), 35–37, (38), 39–51, (52), 55, 57–60,
62–84, (85), 86, 87, (88), 89–96, (99), 100, (103), 104, 107, 109.
H4–6, 8–10, 12, 13, 19, 20, 25, 30, (35, 38), 39. C.
 - 2 **tenax** (Hedw.) Jenn.
1–18, (19), 20–24, 26, 31–55, 57–60, (61), 62–93, (94), 98, 99,
101, 102, 106, 108, 109, (111). H(1, 2), 5, 6, (7), 8, 10–13, (15),
17, 19, (20), 21, (25), 27, 28, (29), 32, 33, 38–40. C.
 - 3 **varium** (Hedw.) Mönk.
1, 3–6, (7), 8–17, 19, 20, (21), 22–38, (39), 40–42, 45, 48–50,
(51), 52, 53, (54), 55–58, (59), 60–62, (63), 64–66, (67, 69), 70,
(71), 73–75, (80), 81, 83, 88, (89), 90, (91, 97), 98, 99, 101–103,
108, (110). H6, (8), 9, 15, (16, 17), 22, 24–28, 30, (33–38), 39,
(40). (C).
 - 4 **humile** (P.Beauv.) Vanderp., Goffinet & Hedenäs

3–15, (16), 17–29, 31, 32, 35, (36), 37, (38), 40, 41, 47, (48, 50),
51, 53, (54), 55–58, 61, (62), 63, (64, 85, 90), 92, 109. H15, 25,
30, 39, (40).

155 *Leptodictyum* (Schimp.) Warnst.

1 **riparium** (Hedw.) Warnst.

1–70, (71), 72–75, (76), 77, 79–90, (91), 92, 93, 95, 96, 98–100,
103, (104–107), 108, (110), 111, 112. H(1), 2–5, (6), 7–9, 11–15,
(16), 17–33, (35), 36–39, (40). C.

156 *Conardia* H.Rob.

1 **compacta** (Müll.Hal.) H.Rob.

2, 3, 10, 34, 36, (37, 40), 56, 57, 63, 64, 66, (67, 68, 72), 81–83,
85, 90, (91), 95, 98, 100, 101, 108. H(28).

157 *Drepanocladus* (Müll.Hal.) G.Roth

1 **polygamus** (Schimp.) Hedenäs

1, 3, 4, (5), 9, (11, 13–15), 16, 17, (18), 22, (23), 24–29, (31), 35,
(37, 38), 39–41, (43), 44–50, 52, 54, 55, 58–60, (61), 62, (64),
67, (68), 69, (70, 71), 73, (74), 75, (76, 77), 80–84, (85, 86, 88),
89, (90), 92, 93, 95, 98, 100, (101), 102–112. H1–4, 9, 12, 13,
16, 17, (19), 20, 21, (22), 23, (24, 25), 27, (28), 33–35, (37), 38,
(39, 40).

2 **aduncus** (Hedw.) Warnst.

1–49, 51–90, (91), 92, 93, (94), 95, 96, 98, (99), 100, (101),
102–105, 107–112. H1–3, 5–11, (12, 14), 15–25, 27, (28, 29),
30–40. C.

3 **sendtneri** (Schimp. ex H.Müll.) Warnst.

1, 2, 4, (11, 15, 18, 23, 24, 26–28, 30, 32), 33, 34, (35, 37–39),
41, 43–45, 48, 51, 52, (53, 54), 59, (60–64), 65, (68, 70), 82, (85,
87, 90, 96, 100, 103, 105, 109), 110, 111. H1, 9, 15–17, 21, 23,
(24), 25–28, (34–37, 39), 40.

4 **lycopodioides** (Brid.) Warnst. [*Pseudocalliergon lycopodioides*]

1, (3), 4, (11, 25, 27), 28, (38), 41, 45, 52, (54), 59, (60–62, 65–68,
85, 90), 92, 95, (96), 106, 107, (109), 110, (111). H9, 15, 17, (20,
21), 23–27, (35, 37), 38, (39), 40.

5 **turgescens** (T.Jensen) Broth. [*Pseudocalliergon turgescens*]

60, 88.

6 **trifarius** (F.Weber & D.Mohr) Broth. [*Pseudocalliergon trifarium*]

(86), 87–89, (90), 92, 94, 96–98, (99, 103), 104–108, 112. H9,
16.

158 *Tomentypnum* Loeske

- 1 **nitens** (Hedw.) Loeske
26, (27), 28, (37), 39, (40), 43, 46, 47, 49, 50, (52, 58, 62, 64, 65), 66, 67, (68), 69, 70, 72, 75, 77–81, 83, 85, 87–89, (90), 91, (92), 93–95, (96), 104, 106, 109. H8, 16, 19, 22, 23, 27, 28, (33), 35.

159 *Hygrohypnum* Lindb.

- 1 **luridum** (Hedw.) Jenn.
1–9, 11–73, (74), 75–112. H1–5, (6), 7, (8), 9–11, 13, (14), 15–17, 19–21, (22), 23–25, (26), 27–31, (32), 33, (34), 35–37, (38), 39, 40.
- 2 **styriacum** (Limpr.) Broth.
96.

160 *Platyhypnum* Loeske

- 1 **smithii** (Sw.) Ochyra [*Hygrohypnum smithii*]
88, (89), 90, 92, 96–98, 105.
- 2 **molle** (Hedw.) Loeske [*Hygrohypnum molle*]
92, 94, 96, 97.
- 3 **duriusculum** (De Not.) Ochyra [*Hygrohypnum duriusculum*]
48, 49, (65), 68, (69), 70, 88, 90, (91), 92, 94–97, (98), 105, 106, 108, (112). H1, (2), 27.

161 *Serpoleskea* (Limpr.) Loeske

- 1 **confervoides** (Brid.) Schimp. [*Amblystegium confervoides*]
(2, 3), 6, (7, 16), 22, (23), 33–36, 39–42, 44, 50, 57, 60, (62, 64), 65, 66, 69, (70, 90), 94. H8, 9, 15, (21), 33.

162 *Campylophyllopsis* W.R.Buck

- 1 **calcareum** (Crundw. & Nyholm) Ochyra [*Campylophyllum calcareum*]
3, 5, 6, (7, 8, 10, 11), 12, (13), 14–17, (18), 19, 20, (21), 22–26, 29, 30, 32–38, 40–42, 47, 49–51, (54), 55, 57, 61–63, (64), 65, (67), 69, (70, 73, 75, 86, 88), 89, 90, (94), 95, 96. H20.

163 *Campylophyllum* (Schimp.) M.Fleisch.

- 1 **halleri** (Hedw.) M.Fleisch.
88, (90), 97.

164 *Pseudocampyllum* Vanderp. & Hedenäs

- 1 **radicale** (P.Beauv.) Vanderp. & Hedenäs [*Amblystegium radicale*]
2, 41, 44–46, 48, 49, 107, 109.

165 *Microhypnum* Jan Kučera & Ignatov

- 1 **sauteri** (Schimp.) Jan Kučera & Ignatov
108.

166 *Warnstorfia* Loeske

- 1 **fluitans** (Hedw.) Loeske
1–9, 11–14, (15), 16–22, 24, 27, 28, 30, (34), 35–55, 57–70,
(71), 72–84, (85), 86–90, (92), 93–100, (101), 102–112. H1,
2, (3), 6, (7), 10, 12, (13, 15), 16–21, 23–25, 27, 30, 31, (32),
33–35, 38–40.

167 *Sarmentypnum* Tuom. & T.J.Kop.

- 1 **exannulatum** (Schimp.) Hedenäs
1–5, (6), 8, 9, 11–13, 17–19, (20), 22, 23, (25, 26), 27, 28, (30),
34–36, (37), 38–55, 57–84, (85, 86), 87–90, (91), 92, 93, 95–98,
(99), 100–112. H1–4, (5), 6, 7, (8), 9, 10, 12, 14–16, 18–20,
(21), 22, (24), 25–40.
- 2 **sarmentosum** (Wahlenb.) Tuom. & T.J.Kop.
1, 2, 42–51, (52), 60, 64–67, 69, 70, (71), 72–76, (77), 78, 79,
(85), 86–92, 94–112. H1–3, 16, (20), 26–30, 34, 35, (38, 39).

168 *Straminergon* Hedenäs

- 1 **stramineum** (Dicks. ex Brid.) Hedenäs
1–6, (7), 8, 9, (10), 11–17, (18–21), 22, 24, 25, 27, 28, 30, 34–50,
(51), 52, 54–112. H1, 2, 4–6, (7), 9, 10, 12–18, 20, (21), 22, 23,
(24), 26–40.

169 *Calliergon* (Sull.) Kindb.

- 1 **cordifolium** (Hedw.) Kindb.
1–28, 30–32, 34–87, (88), 89–104, (105), 106–112. H2, 3, (4),
5–7, (8), 9, 10, 12, 13, (15), 16–18, 20, (21), 22–25, 27–34, 36–40.
- 2 **giganteum** (Schimp.) Kindb.
1, 3, (7, 9), 11, 12, (13, 14), 17, (21), 22, (23), 26–28, (29, 31–
34), 35, 36, (37), 38–40, (41), 42–52, 54, (55), 57–60, (61), 62,
64–70, (71), 72–90, (91), 92, 94–104, 106, 108–112. H1, 4, 6,
(7), 8–11, 13–19, (20), 21–40.

170 *Sanionia* Loeske

- 1 **uncinata** (Hedw.) Loeske
1–4, 6, 9, 11–13, (14), 15, (16–19), 22, 24, 25, (26), 27–29, 31–
37, (38), 39–52, 54, 56–60, 62–112. H1, 2, 4, 6, 7, (8), 9, 10, 12,
14, (15–17), 18, 20, (21), 22, (24), 25, 26, 28–30, (31), 32, 33,
(34), 35, 36, (37), 38–40.

- 2 **orthothecioides** (Lindb.) Loeske
91, 93, 94, 104, (105), 108–112.
- 171 **Hygrohypnella** Ignatov & Ignatova
- 1 **ochracea** (Turner ex Wilson) Ignatov & Ignatova [*Hygrohypnum ochraceum*]
1–5, 35, 36, 39, 41–51, 57–60, 62–110, 112. H1–10, (12), 13, 15, 16, (19), 20, 21, 27, (31), 33–36, 38–40.
- 2 **polaris** (Lindb.) Ignatov & Ignatova [*Hygrohypnum polare*]
105.
- 172 **Hamatocaulis** Hedenäs
- 1 **vernicosus** (Mitt.) Hedenäs
3, 4, (11, 15), 27, 38–50, 52, (57, 58, 60), 63, (64, 65), 67, 69, 70, 72, 75, 76, 78–80, (83), 86, 88–90, (91), 96, 98, 99, (100), 103, 104. H6, (12), 15, 16, 20, 22, 23, 27, 30, 34, 35, 38, 39.
- 173 **Scorpidium** (Schimp.) Limpr.
- 1 **revolvens** (Sw. ex Turner) Rubers
1–5, 9, 11, 12, 17, 27, 28, (29), 35, 36, 39–50, (54), 57, (58, 59), 60, 62–70, 72–81, (83, 85), 86–92, 94, (95), 96–98, 100–112. H1–3, (4, 5), 6, 7, 9, 10, 12, 14–16, (17), 18, 20, 21, (23), 26–31, 33–40.
- 2 **cossonii** (Schimp.) Hedenäs
1, (3), 4–6, 9, 11, 12, 22, 23, (25), 26–28, (32), 33, (34), 35, 36, (37, 38), 39–52, (53, 54), 57, (58), 59–70, 72–83, 85–94, 96, 98, (99), 100–112. H1, (2, 7), 8–10, (11), 14–16, (17), 18, 19, (20), 22–29, 31–35, (37), 38–40.
- 3 **scorpioides** (Hedw.) Limpr.
1, (2), 3, 4, (6, 7), 9, 11, (12, 13), 17, (25, 26), 27, 28, (29), 35, (37), 39–50, (51), 52, (54, 57, 58), 59, (60, 61), 62, (63), 64–70, (71), 72–77, 79–82, (83), 85, (86), 87–90, (91), 92–112. H1–3, (4), 9, 10, (11), 13–19, 21–35, (36, 37), 38–40.
- 174 **Leskea** Hedw.
- 1 **polycarpa** Hedw.
1–48, (49), 50–70, (71), 72, (73, 74), 75–90, (91), 93, 95, 96, 98, 99. H1–7, 9, 11–13, 15, 18–22, 24–30, (31), 32–40. (C).
- 175 **Lescuraea** Bruch & Schimp.
- 1 **patens** Lindb. [*Pseudoleskea patens*]
88, 90, 92, 96–98, 105, 106.
- 2 **incurvata** (Hedw.) E.Lawton [*Pseudoleskea incurvata*]
(80), 88–90, (92, 94), 97.

- 3 **saxicola** (Schimp.) Molendo
(88).
- 4 **plicata** (Schleich. ex F.Weber & D.Mohr) Lindb. [*Ptychodium plicatum*]
88–90, 97.
- 176 **Pseudoleskeella** Kindb.
- 1 **catenulata** (Brid. ex Schrad.) Kindb.
64–66, 69, 70, 88–90, 92, 94, 96, (97, 98), 108.
- 2 **rupestris** (Berggr.) Hedenäs & L.Söderstr.
49, (69), 88–90, 92, 94, 96–98, 104, 105, 108.
- 3 **nervosa** (Brid.) Nyholm
92.
- 177 **Abietinella** Müll.Hal.
- 1 **abietina** (Hedw.) M.Fleisch.
a var. **abietina**
1, 8, 12, 13, (15, 19), 20, (23, 25), 26–30, (32), 33, 41, 44, (49),
52, 53, 55, 64, (66), 69, (71, 75), 82, (85, 87), 88, (89), 90, (94,
106). H(21), 40.
b var. **hystricosa** (Mitt.) Sakurai
6, 8, 9, 11–13, 15–17, 20, 22–24, (26), 30, (64, 65, 88). H27, 28,
34, 35, 40.
- 178 **Thuidium** Bruch & Schimp.
- 1 **tamariscinum** (Hedw.) Schimp.
1–112, H1–40. C.
- 2 **delicatulum** (Hedw.) Schimp.
(1), 2–5, (6), 9, 11, (12), 17, 25, 34, 35, 40, 42–50, (52), 57,
59, 60, 64–66, (67), 69, 70, (71), 72–84, 86–89, (91), 96–110,
112. H1–3, (6), 7, (8, 9), 10, 12, 15, 16, 18–20, 25–29, (30, 31),
32–36, 38–40.
- 3 **assimile** (Mitt.) A.Jaeger
(3, 4), 5, 6, (7), 8, (9, 10), 11–15, (16), 17, (19), 20, (21), 22–24,
(25, 26), 27–30, (32), 33–35, (36), 37, (38, 39), 40–44, 46–52,
(54, 55), 57, 60, (61), 62–70, 72–74, (75), 80–85, (86), 87–90,
92, 94, 97, 98, (100), 101–106, (107), 108–110. H1, (7, 9), 10,
11, (14, 16), 17–20, 22–25, 28, (32), 34, (35, 37), 38–40.
- 4 **recognitum** (Hedw.) Lindb.
6, (34), 35, 50, 51, 57, 60, 64, (69, 86, 87), 88, 90, 92, 96–98,
104, 105, (106, 107), 108. H(9), 16, (26, 29), 33–35, 40.

- 179 **Helodium** (Müll.Hal.) Müll.Hal.
1 **blandowii** (F.Weber & D.Mohr) Warnst.
(58, 62, 64, 65).
- 180 **Pseudoscleropodium** (Limpr.) M.Fleisch.
1 **purum** (Hedw.) M.Fleisch.
1–112, H1–40. C.
- 181 **Scorpiurium** Schimp.
1 **circinatum** (Brid.) M.Fleisch. & Loeske
1–3, (4), 5, 6, 8–11, 13–15, 17, 22, 24, 34–36, 41, 44, 45, 50, 52.
H(1), 2, 5, (6), 8–11, 15, 23–26. C.
- 182 **Plasteurhynchium** M.Fleisch.
1 **meridionale** (Schimp.) M.Fleisch.
9.
2 **striatulum** (Spruce) M.Fleisch.
3–7, 9, 10, (11), 12–14, 17, 29, 33–36, 39–42, 44, 45, 49, 50, 52,
57, 60, 63–65, 69, 98. H(1, 2), 5, 8, 9, 15, (16), 17, (20), 25, 26,
28, 29.
- 183 **Eurhynchium** Bruch & Schimp.
1 **striatum** (Hedw.) Schimp.
1–112, H1–40. C.
- 184 **Rhynchostegium** Bruch & Schimp.
1 **riparioides** (Hedw.) Cardot [*Platyhypnidium riparioides*]
1–112, H1–13, (14), 15, 16, 18–40. C.
2 **alopescuroides** (Brid.) A.J.E.Sm. [*Platyhypnidium lusitanicum*]
1–5, (35, 36), 41–50, 57–60, 63, (69–71), 73–75, 80, (91, 92),
94, 98, 105–108. H1, 2, 5, 6, 12, 16, 19–21, 27, 33, (35).
3 **murale** (Hedw.) Schimp.
1–70, (71), 72, (73), 74, 76–78, 80–85, (86), 87, (88–91, 95), 98,
(99), 100, (101), 102, (103), 104, (106, 108, 111), 112. H1, (2, 4, 7,
8), 9, 10, (12, 14, 15), 17, 18, (19), 20–29, 33, (34, 36–38), 39. (C).
4 **confertum** (Dicks.) Schimp.
1–78, (79), 80–90, (91), 92–94, (95), 96–105, (106), 110–112.
H1–13, (14), 15–29, (30), 31, 33–40. C.
5 **megapolitanum** (Blandow ex F.Weber & D.Mohr) Schimp.
1–6, (7), 8–31, (37, 38), 41, 44–46, 48–54, 57–60, 64, (67, 71,
73, 75), 81, 82, 85, (90). H(1), 5, 6, 12, 20, 21, (33). C.
6 **rotundifolium** (Scop. ex Brid.) Schimp.
(6), 14, 33.

- 185 *Rhynchostegiella* (Schimp.) Limpr.
- 1 **tenella** (Dicks.) Limpr.
1–66, (67), 68–86, 88–91, (97), 98–106, 108, 110. H1–40. C.
 - 2 **litorea** (De Not.) Limpr.
2, (3), 5, (6), 10–14, (15, 16), 17, 19, (21), 22, (23), 29.
 - 3 **curviseta** (Brid.) Limpr.
2–6, (7), 8–15, (16), 17, 19, 22–25, 29, (30), 32–34, (35, 36), 37, (38), 39, 40, 46, (62). H(33, 39). (C).
 - 4 **teneriffae** (Mont.) Dirkse & Bouman
1, (2), 3, 5–9, 11–14, 22–24, 29, 32–37, (38), 39–47, 49, (50), 51, 52, (53), 57, (58), 59, 60, (61), 62–66, (67), 68–70, 72, (73), 75–77, 80–83, (85, 86), 87, (88), 89, 90, (91), 97, 98, (99), 100, 101, 104, 108, (111). H(1, 3), 4–6, 8–11, 15, (16), 20, 21, 28, 29, 33, (34), 35, 38–40. C.
- 186 *Cirriphyllum* Grout
- 1 **piliferum** (Hedw.) Grout
1–111, H1–12, (13), 14–29, (30), 31–36, (37), 38–40. C.
 - 2 **crassinervium** (Taylor ex Wilson) Loeske & M.Fleisch.
1–60, (61), 62–71, (72, 73), 75–77, 79–85, (86), 87–91, 93–105, (106), 108, (111), 112. H1–11, (12), 13, 15–17, (18), 19–28, (29), 30, (32), 33, 35, (36, 38–40). C.
- 187 *Microeurhynchium* Ignatov & Vanderp.
- 1 **pumilum** (Wilson) Ignatov & Vanderp. [*Oxyrrhynchium pumilum*]
1–75, (76), 77, 78, 80–85, 87–91, 93–95, 97, 98, (99), 100–105, (106), 108–112. H1–13, (14), 15, (16), 17–23, 25, 27–31, (32), 33–40. C.
- 188 *Oxyrrhynchium* (Schimp.) Warnst.
- 1 **hians** (Hedw.) Loeske
1–112, H1–40. C.
 - 2 **schleicheri** (R.Hedw.) Röll
3–17, 19, 20, 22–24, (27), 33–37, 40–44, 46, 47, 50, 58, 60, (62), 64, (67, 68), 69, 79, (80), 81. H10.
 - 3 **speciosum** (Brid.) Warnst.
1–3, 5–17, 19–32, (33), 34–41, (42), 43–47, (48), 49, 52–58, (59), 60, 61, (62, 63), 64, (68), 69–71, (73), 74, 75, 81, (90), 91, (98, 101), 102, 103, 111, 112. H2, 4, 5, (6), 8, 9, 15, 17, 18, (19), 20, 21, (22), 25, 28, 32, (35, 36), 37, (38), 39, (40). C.

189 *Kindbergia* Ochyra

- 1 **praelonga** (Hedw.) Ochyra
1–112, H1–40. C.

190 *Sciuro-hypnum* (Hampe) Hampe

- 1 **starkei** (Brid.) Ignatov & Huttunen
88, 90, 92, 97, (105), 106.
- 2 **glaciale** (Schimp.) Ignatov & Huttunen
88, 90, 92, 94, 96–98, 105, 106.
- 3 **reflexum** (Starke) Ignatov & Huttunen
88–90, 92, 96–98, (105), 106, 107.
- 4 **populeum** (Hedw.) Ignatov & Huttunen
1–9, 11–30, (31), 32–60, (61), 62–70, (71), 72–91, (92), 93–
110, (111), 112. H1–5, (6), 7–13, 16, (19), 20–27, 29, (30),
31–33, (34), 35–40. C.
- 5 **plumosum** (Hedw.) Ignatov & Huttunen
1–6, 8, 9, 11, 13–17, 32, 34–50, (51), 52, (53, 54), 55, 57–60,
(61), 62–112. H1–16, 18, 20, (21, 24), 25–40. C.

191 *Brachythecium* Schimp.

- 1 **albicans** (Hedw.) Schimp.
1–85, (86, 87), 88–112. H1, 3–6, 9, 12, 16, (19), 20–22, 27, 28,
31, 34, 35, (37), 38–40. C.
- 2 **erythrorrhizon** Schimp.
(108).
- 3 **glareosum** (Bruch ex Spruce) Schimp.
1–3, (4, 5), 6–18, (19), 20, (21), 22–24, (25), 26–47, (48), 49–55,
57, 58, (59), 60–69, (70, 72), 75, (77, 79), 80–83, 85, 87–90, (91),
94–98, (100, 101), 102–106, 108, 110. H1, (2, 3, 6), 7, (8), 9, 15,
16, (18), 19, 20, (21), 22, (25), 26–29, (31), 33–35, (38), 39, 40.
(C).
- 4 **salebrosum** (Hoffm. ex F.Weber & D.Mohr) Schimp.
(3, 9), 12–14, (15), 17, 20, 22–36, (37), 38, 40, 44, (54), 57, (62),
63, 64, (66), 67, (80), 88, (90), 92.
- 5 **mildeanum** (Schimp.) Schimp.
1–20, 22–60, (61), 62, 64–67, (68, 69), 70, 73–75, (81, 82),
83, 85, (86, 88), 90, 94, 95, (96), 97, 100, 102, (104), 105–112.
H(1), 2, 4–8, 10, 11, 13, 16–21, (22), 23, 26–28, 34, 35, (37), 39,
40. (C).
- 6 **rutabulum** (Hedw.) Schimp.

- 1–112, H1–40. C.
- 7 **rivulare** Schimp.
1–112, H1–13, 15–40. C.
- 8 **cirrosum** (Schwägr.) Schimp.
88, 98, 105, 106.
- 192 **Scleropodium** Bruch & Schimp.
- 1 **cespitans** (Müll.Hal.) L.F.Koch
1–40, 42–50, 52, 54–58, (59), 61, (62), 63, 64, (65), 67, 68, 70,
72, 73, 75, 79–81, 98, 99. H2–7, 9, 12, (13), 20, 21, 28–30, 33,
35, 36, 38, 39. C.
- 2 **touretii** (Brid.) L.F.Koch
1–6, (7), 8–11, (12), 13–17, (18–20, 22, 23), 24, (26–29, 33), 34–
37, (38), 40–52, (71), 74, 75, 81, (88). H3–5, (6, 12, 21, 37, 39). C.
- 193 **Eurhynchiastrum** Ignatov & Huttunen
- 1 **diversifolium** (Schimp.) J.Guerra [*Eurhynchiastrum pulchellum*]
(26), 89, 90, 92, 104. H40.
- 194 **Brachytheciastrum** Ignatov & Huttunen
- 1 **velutinum** (Hedw.) Ignatov & Huttunen
1–70, (71), 72, 73, 75–99, 101–104, 106–109, 111, 112. H9, 18,
20, (21), 28, (37–39). C.
- 2 **trachypodium** (Brid.) Ignatov & Huttunen
(88), 96–98.
- 195 **Homalothecium** Schimp.
- 1 **sericeum** (Hedw.) Schimp.
1–112, H1–40. C.
- 2 **lutescens** (Hedw.) H.Rob.
1–71, 73, 75, (77, 78), 79–88, (89), 90–99, 101–112. H1–31,
33–35, (37), 38–40. C.
- 196 **Hypnum** Hedw.
- 1 **cupressiforme** Hedw.
a var. **cupressiforme**
1–112, H1–40. C.
b var. **lacunosum** Brid.
1–75, (76), 77–112. H1–13, (14), 15–31, 33–40. C.
c var. **heseleri** (Ando & Higuchi) M.O.Hill
28, 29.
d var. **resupinatum** (Taylor) Schimp.
1–112, H1–40. C.

- 2 **andoi** A.J.E.Sm.
1–55, 57–60, 62–83, 85–108, 110, 112. H1–13, 15–18, 20–23, 25–36, 38–40. (C).
 - 3 **uncinulatum** Jur.
H1–3.
 - 4 **jutlandicum** Holmen & E.Warncke
1–112, H1–40. C.
 - 5 **imponens** Hedw.
(3), 8, 9, 11–13, (14, 15), 17, 22, 24, 28, 49, 50, 54, (59), 60, (61, 62, 64), 66–70, 72, 77–79, (80), 81–83, (88), 95, (105).
- 197 **Taxiphyllum** M.Fleisch.
- 1 **wissgrillii** (Garov.) Wijk & Margad.
3–17, 19, 20, (21), 22–24, 33–37, (38), 39–45, 47–53, 56, 57, (58, 59), 60–66, (67, 68), 69, 70, 72, (73, 75, 77), 80–84, (85), 86–90, 93, (97), 98, 101, 103, 104, (108). H(2), 5, 7, 9, 11, 16, (21), 23, 28–30, 33, 34, (38, 39), 40.
- 198 **Platygyrium** Bruch & Schimp.
- 1 **repens** (Brid.) Schimp.
6–8, 10–17, 19–38, 40, 42, 50, 53, 54, 57, 81, 82.
- 199 **Stereodon** (Brid.) Mitt.
- 1 **callichrous** (Brid.) Brid. [*Hypnum callichroum*]
44, 46, 48, 49, (50, 51, 64, 68), 69, 70, (72), 73, (78), 80, (85), 86–90, 92, 94, 96–108, 110, 111. H1, (2), 3, 16, 27, (28, 29, 34, 35).
 - 2 **hamulosus** (Schimp.) Lindb. [*Hypnum hamulosum*]
(48), 49, (64), 69, 70, 87–89, (90, 91), 92, (94), 96–98, (103), 104–106, (107), 108. H27.
- 200 **Pseudohygrohypnum** Kanda
- 1 **eugyrium** (Schimp.) Kanda [*Hygrohypnum eugyrium*]
4, 36, 42, 44, 45, 47–50, 64–66, 68–70, 72, 73, (74), 75, 76, 78–80, (81), 83, 86–90, (91), 92, 95–100, 102–108, 110, (112). H1–3, 6, (7), 8, 16, 20, 27, (31), 33–36, (38), 39.
 - 2 **subeugyrium** (Renauld & Cardot) Ignatov & Ignatova [*Hygrohypnum subeugyrium*]
(36, 48), 49, 70, (72), 73, 87, 96–99, (101), 103–105, 108.
- 201 **Calliergonella** Loeske
- 1 **cuspidata** (Hedw.) Loeske
1–112, H1–40. C.

- 2 **lindbergii** (Mitt.) Hedenäs
 1–5, (6, 7), 8–17, (18, 19), 20, 22, 23, (24), 30, 31, 33–37, (38),
 39–53, 55, 57–60, 62–70, (71), 72, 73, (74), 75–88, (89), 90, 93,
 (94), 95–98, (99), 100–108. H1–5, (6), 7, (8), 9, (10), 11–14,
 (15), 16, 18, 20–23, 25–29, (31), 32–40.
- 202 **Pylaisia** Schimp.
 1 **polyantha** (Hedw.) Schimp.
 6–8, (13), 14, (15, 19), 22–24, 26–29, 32–37, (38), 39–41, 43,
 44, 48, 51, (52), 53, (54, 55), 56–59, 61–63, (64), 65–68, (69, 70,
 73–75, 78), 80–83, (85), 88–91, 94. (C).
- 203 **Homomallium** (Schimp.) Loeske
 1 **incurvatum** (Schrad. ex Brid.) Loeske
 (64), 65, 66, 69, (70, 87–89), 90.
- 204 **Roaldia** P.E.A.S.Câmara & Carv.-Silva
 1 **revoluta** (Mitt.) P.E.A.S.Câmara & Carv.-Silva [*Hypnum
 revolutum* var. *revolutum*]
 88.
- 205 **Buckia** D.Rios, M.T.Gallego & J.Guerra
 1 **vaucheri** (Lesq.) D.Rios, M.T.Gallego & J.Guerra [*Hypnum
 vaucheri*]
 88, 89, 94.
- 206 **Pseudostereodon** (Broth.) M.Fleisch.
 1 **procerrimus** (Molendo) M.Fleisch. [*Ctenidium procerrimum*]
 88, 96.
- 207 **Ptilium** De Not.
 1 **crista-castrensis** (Hedw.) De Not.
 (26), 28, 34, 47–49, 54, 57, 60, (62), 63, 64, (65), 67, 69, 70, 72,
 (73), 78–81, 83, (85), 86–90, (91), 92, (93), 94–99, 101–108.
 H27.
- 208 **Sematophyllum** Mitt.
 1 **demissum** (Wilson) Mitt.
 48, 49. H1–3, 16.
 2 **substrumulosum** (Hampe) E.Britton
 1–14, 16, 23, 24, 28–30, 34–36, 38, 41, 44–46, 52, 55. H1, 2, 12,
 13, 38, 40. C.
- 209 **Pleurozium** Mitt.
 1 **schreberi** (Willd. ex Brid.) Mitt.
 1–31, (32), 33–112. H1–13, (14), 15–40. (C).

- 210 **Rhytidiadelphus** (Limpr.) Warnst.
1 **squarrosus** (Hedw.) Warnst.
1–112, H1–40. C.
2 **subpinnatus** (Lindb.) T.J.Kop.
(36), 41, 42, 44, 45, 47, 48, (57, 58), 60, 64, (65), 69, 70, 86, 98.
H(6).
3 **loreus** (Hedw.) Warnst.
1–18, 20, (21), 22–55, 57–112. H1–22, (24), 25–40. C.
- 211 **Hylocomiadelphus** Ochyra & Stebel
1 **triquetrus** (Hedw.) Ochyra & Stebel [*Rhytidiadelphus triquetrus*]
1–17, (18), 19, 20, (21), 22–112. H1–40. C.
- 212 **Loeskeobryum** Broth.
1 **brevirostre** (Brid.) M.Fleisch.
1–9, (11), 12–15, (16), 17, (20), 22, (23), 24, 29, 32–35, (36),
37, (38), 40–50, 54, (55), 57, (58), 59, 60, (62), 63–65, 67, 69,
70, 72–77, 79–81, 87–89, (90), 92, 96–108, 110. H1–20, (21),
22–31, (32), 33–37, (38), 39, 40. (C).
- 213 **Hylocomiastrum** Broth.
1 **pyrenaicum** (Spruce) M.Fleisch. ex Broth.
88–90, 92, (96), 97, 98, (104), 105, 106, (107).
2 **umbratum** (Hedw.) M.Fleisch. ex Broth.
46–50, 64, 69, 70, 72, 73, 75, 76, (78), 79, 80, 86–90, 92, 94–106,
(107), 108, 110. H1, 2, 16, 20, 27, 28, (29), 35, (39).
- 214 **Hylocomium** Bruch & Schimp.
1 **splendens** (Hedw.) Schimp.
1–17, (18), 19, 20, (21), 22–112. H1–40. (C).
- 215 **Hageniella** Broth.
1 **micans** (Mitt.) B.C.Tan & Y.Jia
48, 70, 86, 87, 97–99, 101, 103–105. H1–3, 16.
- 216 **Rhytidium** (Sull.) Kindb.
1 **rugosum** (Hedw.) Kindb.
6, (23), 26, 28, (29, 36, 39), 49, 57, (59), 60, (64), 65, 66, 69, 70,
82, (85), 86–90, (92, 96), 97, 98, 103–106, (108). H40.
- 217 **Entodon** Müll.Hal.
1 **concinus** (De Not.) Paris
6–17, 19, 20, 22–24, 29, 30, 32–34, (36), 37, (38, 39), 40, 41, 49,
50, (52), 53, 54, (55), 56, 57, (59), 60, (61), 62, 64–67, 69, 70,
(71), 72, 79–83, 85–90, 92, 97, 98, (101), 102–110. H1, (6), 7,

(8), 9, 10, 13, 15–17, 19, (20), 21–31, 33–35, 38–40.

218 *Cryphaea* F.Weber

1 *heteromalla* (Hedw.) Brid.

1–77, 79–86, (87), 88, 89, (90), 97–100, (101–103), 104, (106), 110. H1–40. C.

219 *Dendrocryphaea* Broth.

1 *lamyana* (Mont.) P.Rao

2–4, 44–46.

220 *Nogopterium* Crosby & W.R.Buck

1 *gracile* (Hedw.) Crosby & W.R.Buck [*Pterogonium gracile*]

1–4, (5), 6, 7, 9–13, (14), 16, (17, 21, 26, 34), 35–37, 40–50, 52, 57, 60, 64–66, 68–70, (71), 72–75, 77–83, 85–91, (92), 96–110, 112. H1–4, 6–8, (13), 16, 20–22, 27, (28, 31, 33), 35, (38, 39). C.

221 *Leucodon* Schwägr.

1 *sciuroides* (Hedw.) Schwägr. [*Leucodon sciuroides* var. *sciuroides*]

1–17, (18), 19, 20, (21), 22–30, (31), 32–50, 52–59, (60), 61–66, (67, 68), 69, 70, (71), 72, (73, 76), 78–83, (85), 87–94, (95), 96, (97), 98, 101, 102, (103), 104, 105, (106), 107, 108. H(3), 6, 7, (9), 11, (14, 16), 18–20, (21), 22, 23, 31, 33, (39). C.

222 *Antitrichia* Brid.

1 *curtipendula* (Hedw.) Brid.

2, 3, (4), 6, (10), 13, (14), 15, (17–23, 25), 26, (27), 28, 29, (32, 33), 34, 35, (36–40), 42, (45), 46, (47), 48–50, (52, 55), 57, (60, 62), 63–65, (66), 67, (68), 69, 70, 72, 73, 75, 77–81, (82), 83, (85), 86, (87), 88–90, (91), 92–99, (101), 103–112. H1, 3, 6, 7, (12, 20, 28, 32), 33, (34, 36, 39), 40.

223 *Neckera* Hedw.

1 *pennata* Hedw.

(90).

2 *pumila* Hedw.

1–10, (11), 12–17, (18, 19), 20, 22–25, (27), 32–37, 40–50, 52, (55), 57–59, (60, 62), 63–65, 67, 69, 70, 72, 73, 75, 78, 80, 85, (86, 87), 88–91, 96–99, 101–105, 111. H1–13, (14), 15, (16), 17–20, (21), 22–34, 36–38, (39), 40. C.

3 *crispa* Hedw.

(1, 2), 3–17, 20, (22), 23, 24, 26, 30, 31, 33–37, 39–53, (54, 55), 56, 57, 59–70, (71), 72–83, (85), 86–90, (91, 92, 94), 96–106,

- (107), 108–110, (111). H1–3, (4, 5), 6–11, 14–18, 20, 23–31, 33–36, (37), 38–40. C†.
- 4 **complanata** (Hedw.) Huebener
1–112, H1–40. C.
- 5 **smithii** (Hedw.) Müll.Hal. [*Leptodon smithii*]
1–6, (7), 8–15, 17, (18), 22, (23), 28, 41, 45, (48), 49, 52, 69, (70). H(3), 6, 9. (C).
- 224 **Homalia** Brid.
1 **trichomanoides** (Hedw.) Brid.
1–94, (96), 97–104, 106, 108, 111, 112. H1–6, 8–12, (13), 14–16, 18–29, 31–34, 36–40. C.
- 225 **Thamnobryum** Nieuwl.
1 **alopcurum** (Hedw.) Gangulee
1–112, H1–40. C.
- 2 **maderense** (Kindb.) Hedenäs
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- 3 **angustifolium** (Holt) Nieuwl.
57, 70.
- 4 **cataractarum** N.G.Hodgetts & Blockeel
64.
- 226 **Pseudanomodon** (Limpr.) Ignatov & Fedosov
1 **attenuatus** (Hedw.) Ignatov & Fedosov [*Anomodon attenuatus*]
70, (88), 90.
- 227 **Heterocладиella** Ignatov & Fedosov
1 **dimorpha** (Brid.) Ignatov & Fedosov [*Heterocladium dimorphum*]
(87), 88–90, 96, 97, (99).
- 228 **Heterocladium** Bruch & Schimp.
1 **heteropterum** (Brid.) Schimp. [*Heterocladium heteropterum* var. *heteropterum*]
1–6, 13–16, 34–37, 39–52, 55, 57–60, 62–84, (85), 86–93, 95–112. H1, 3, (4, 5), 6–8, (9), 10–13, (14), 16, 20, 21, 25–29, (30), 31, 33–36, (37), 38–40. C.
- 2 **flaccidum** (Schimp.) A.J.E.Sm. [*Heterocladium heteropterum* var. *flaccidum*]
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- 3 **wulfsbergii** I.Hagen
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- 229 **Isothecium** Brid.
- 1 **myosuroides** Brid. [*Isothecium myosuroides* var. *myosuroides*]
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- 2 **interludens** Stirt. [*Isothecium myosuroides* var. *brachythecioides*]
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- 3 **alopescuroides** (Lam. ex Dubois) Isov.
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- 4 **holtii** Kindb.
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- 230 **Ctenidium** (Schimp.) Mitt.
- 1 **molluscum** (Hedw.) Mitt. [*Ctenidium molluscum* var. *molluscum*]
1–70, (71), 72–112. H1–40. C.
- 231 **Hyocomium** Bruch & Schimp.
- 1 **armoricum** (Brid.) Wijk & Margad.
1–6, 11, 13–16, 34–36, 39–50, 57–60, 62–75, (76), 77–80, 86–92, 95–108, 110, (111), 112. H1–10, (11), 12–16, 18, 20, 21, 25–40.
- 232 **Myurium** Schimp.
- 1 **hochstetteri** (Schimp.) Kindb.
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- 233 **Anomodon** Hook. & Taylor
- 1 **longifolius** (Schleich. ex Brid.) Hartm.
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- 2 **viticulosus** (Hedw.) Hook. & Taylor
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Annotations

- [1] Intraspecific taxa in *Blepharostoma trichophyllum* have not previously been recorded in Britain and Ireland, but the recent discovery of subsp. *brevirete* in Scotland necessitates a re-evaluation of existing records. The specimen reported for South Devon (vice-county 3) in Hodgetts (2021) is known to belong to subsp. *trichophyllum*.
- [2] The distributions of *Fossombronia caespitifformis* s.str. and *F. husnotii* have been reinstated from the 1998 Census Catalogue (Blockeel & Long, 1998), with subsequent additions. The record of *F. caespitifformis* s.lat. from vice-county 46 in Hodgetts (2019) belongs to *F. husnotii* (det. T.W. Ottley).
- [3] The distribution of the varieties of *Lophozia ventricosa* is far from complete, owing to uneven recording and different taxonomic concepts over the years: *L. ventricosa* var. *silvicola* has variously been regarded as a synonym of the type, a variety or a species. The vice-county distribution given here is based on information in the BBS database.
- [4] *Microbryum davallianum* var. *davallianum* and *M. davallianum* var. *conicum* are equivalent to *Pottia starckeana* subsp. *minutula* and *P. starckeana* subsp. *conica* of the 1981 Census Catalogue (Corley & Hill, 1981). Their distributions have been reinstated based on a revision by M.O. Hill for the 1981 Census Catalogue and subsequent vice-county records, but they are certainly incomplete. Some old records that could not safely be localised to hectad (10 km square) have been disregarded.
- [5] T.W. Ottley has reviewed the diagnostic characters of *Racomitrium heterostichum* s.str. and *R. obtusum*, and has provided some initial records of their distributions (Ottley, 2021).

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Finally, we are indebted to all members of the British Bryological Society who have sent in vice-county records over the years. Their work provides the firm foundation on which this and previous Census Catalogues are based.

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