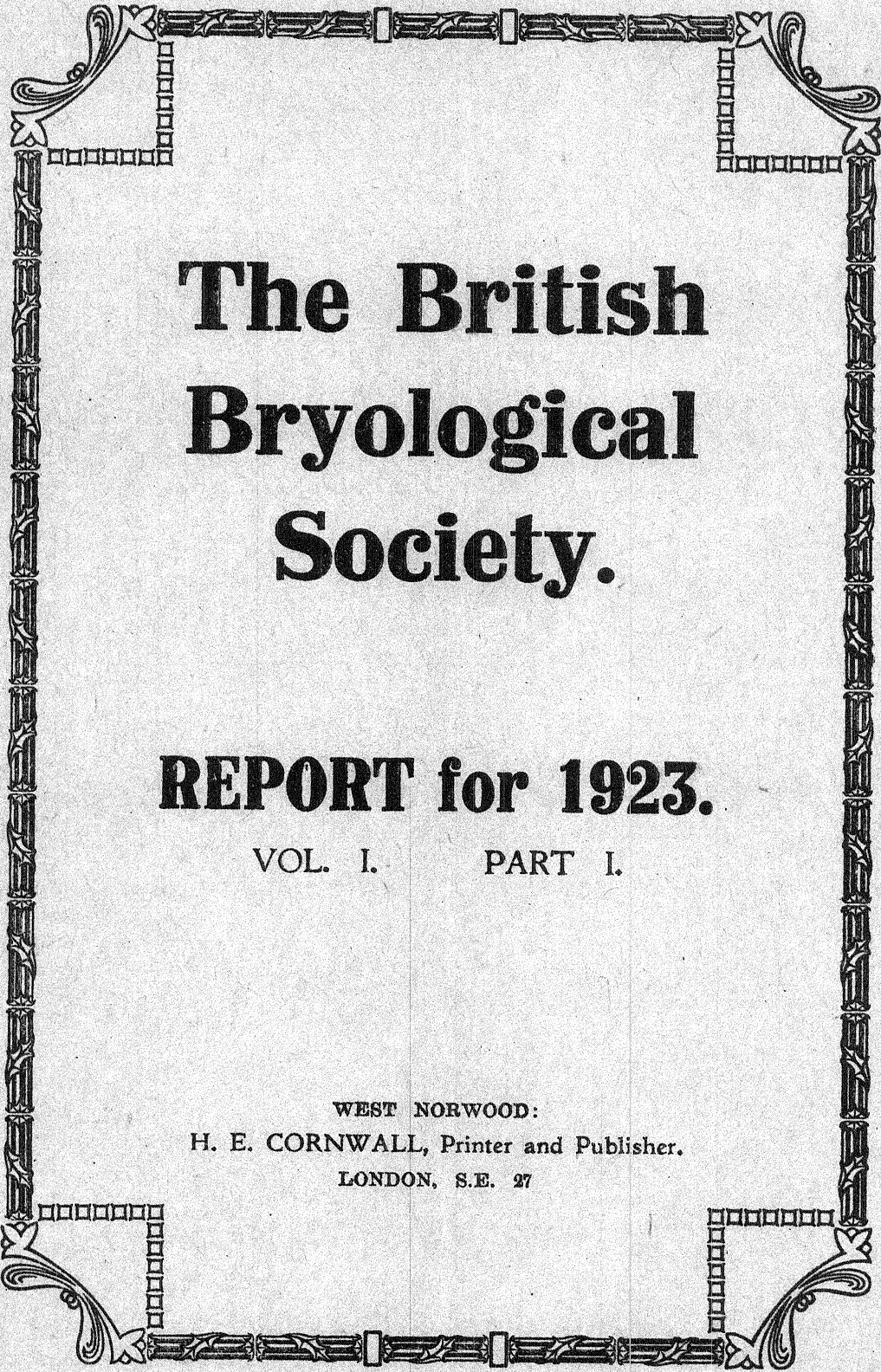




The British Bryological Society.

REPORT for 1923.

VOL. I. PART I.

WEST NORWOOD:
H. E. CORNWALL, Printer and Publisher.
LONDON, S.E. 27

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- *Mr. William Young, Fairview, Kirkcaldy.

Mosses and Hepatics for Distribution.

1922—1923.

				MOSES	HEPATICS	TOTAL
Miss E. Armitage	...	...	...	232	129	361
Mr. H. Beesley	...	...	...	41	40	81
Mr. W. Bellerby	...	...	...	161	48	209
Mr. D. Billing	...	...	...	78	...	78
Rev. C. H. Binstead	...	...	...	5	...	5
Mr. D. B. Bradshaw	...	...	...	11	7	18
Miss C. A. Cooper	...	...	...	8	...	8
Mr. H. N. Dixon	...	...	...	232	...	232
Rev. H. H. Harvey	...	...	...	8	...	8
Mr. J. D. Houston	...	...	...	18	...	18
Rev. R. Jackett	...	...	...	414	...	414
Mr. A. D. Jones	...	...	...	162	102	264
Mr. H. H. Knight	...	...	...	7	5	12
Rev. D. Lillie	...	...	...	58	...	58
Mr. St. John Marriott	...	...	...	34	20	54
Rev. W. R. Megaw	...	...	...	22	...	22
Mr. W. E. Nicholson	...	...	...	60	59	119
Mr. J. H. Payne	...	...	...	14	4	18
Mr. W. H. Pearson	...	...	...	...	54	54
Rev. P. G. M. Rhodes	...	...	...	126	15	141
Mr. P. W. M. Richards	...	...	...	78	...	78
Mr. F. Rilstone	...	...	...	40	20	60
Mr. G. B. Savery	...	...	...	33	...	33
Mr. W. R. Sherrin	...	...	...	79	9	88
Mr. R. W. Smitham	...	...	...	47	10	57
Mr. A. Sutton	...	...	...	183	...	183
Mr. N. Temperley	...	...	...	51	17	68
Mr. W. N. Tetley	...	...	...	146	33	179
Mr. W. G. Travis	...	...	...	30	42	72
Dr. L. B. C. Trotter	...	...	...	14	...	14
Dr. W. Watson	...	...	...	50	9	59
Mr. J. A. Wheldon	...	...	...	87	12	99
Mr. A. Wilson	...	...	...	73	31	104
Miss A. Wyndham	...	...	...	7	...	7
				2609	666	3275

REFEREES:

MOSSES—

Sphagnaceae	...	...	...	...	Mr. SHERRIN.
Andreaeaceae to Grimmiaceae	...	...	...	...	Mr. SAVERY.
Tortulaceæ to Orthotrichaceae and European					Mr. NICHOLSON.
Schistostegaceae to Leskeaceae, except Bryaceae					Mr. JONES.
Bryaceae and Hypnaceae	...	...	...	...	Mr. WHELDON.
Non-European and Referee in chief	...	...	...	...	Mr. DIXON.

HEPATICS—

Sphaerocarpus to Pedinophyllum	...	...	...	...	Mr. KNIGHT.
Leptoscyphus to Anthoceros	...	...	...	...	Mr. JONES.
Referee in chief	...	...	...	...	Mr. MACVICAR.

Report of General Secretary.

In submitting the first Annual Report of the British Bryological Society, it is gratifying to be able to record a membership of 87. Only a few of those who were members of the Moss Exchange Club have not joined. A fair number of Foreign Members have been admitted and it is to be hoped more will join when the Society becomes more widely known.

The results of the Distribution are encouraging and we anticipate greater activity next year.

We deeply regret to announce the death of our Vice-President, Mr. W. H. Pearson, M.Sc., A.L.S.; and, also, of the late Secretary of the Moss Exchange Club (Senior Section), Mr. William Ingham, B.A.

We are all greatly indebted to Miss Armitage for acting as Secretary *pro. tem.* after the resignation of Mr. Ingham. Thanks to her courtesy and tact, she proved a safe guide during a critical period.

The cordial thanks of the Society are also due to Messrs. Wilson and Rilstone for carrying out the heavy duties of the Distribution to a successful issue. Mr. Wilson has kindly undertaken to act as Distributor of Mosses for next year and Mr. Rilstone of Hepatics.

A third edition of the STUDENTS' HANDBOOK OF BRITISH MOSSES will be issued about the end of this year. Members who wish to have copies specially bound, or in India paper, or with Plates inserted in the text had better communicate with the Publishers.

In due course Circulating Catalogues will be sent round to Members, indicating our *Desiderata* and the number of specimens required to be contributed. Members are earnestly requested not to delay in circulating these Catalogues.

The amended Statement of Accounts printed in the Report covers the *whole* of the year, 1922. The one issued in the Circular last December only presented the financial transactions for *part* of the year, 1922 (not the year, 1921 as specified in that Circular).

Subscriptions for the year were due on January 1st, and should be sent direct to the Treasurer, Mr. J. A. WHELDON, 26, Marchfield Road, Orrell Park, Liverpool.

D. A. JONES,
General Secretary.

ROCK HOUSE, HARLECH,
July, 1923.

Report of Distributor (Mosses).

The mosses contributed for the first distribution of the Society reached the considerable total of 2609 packets. Sphagna were comparatively few but included Mr. Sherrin's welcome contribution of *S. armoricum*. A valuable series of *Brachythecium* and *Eurhynchium* forms was received from Mr. H. N. Dixon.

Return parcels were sent in March to contributing members and to others who were understood to wish to share in the distribution. Recipients of parcels are asked to check the naming on the packets with the corrections in the Report so as to obviate mistakes in case any uncorrected packets should have been sent out. Members are particularly requested by the referee to send well-prepared specimens of Sphagna for examination.

Mr. W. E. Nicholson comments on the plants sent to him as Referee:—

“ The general condition of the specimens submitted to me is good, and the specimens are for the most part well-prepared. In a few cases the name of the author has been omitted from the label, and I think that it would be a great pity if this practice were to become at all general.”

The thanks of the Society are due to the Referees for their valuable services.

F. RILSTONE.

POLPERRO,

June, 1923.

Report of Distributor (Hepatics).

No general list of desiderata having been issued for this, the Society's first exchange, it was difficult for members to estimate the number of specimens of each species that would be required. This uncertainty, and the rather limited time allowed for sending in oblata lists, probably accounted for the rather small exchange. Only 666 packets were received, contributed by 20 members, two of whom, however, sent fine parcels of over 100 packets each. 45 members received parcels, the participants being generally limited to new members, and to those who had communicated with the distributors.

The quality of the material was in almost all cases excellent, but the number of packets of some species was unfortunately inadequate to supply the wants of even the small number of members who sent in desiderata lists.

One of the most interesting plants contributed was *Lophozia Kunzeana*, gathered by Mr. Beesley in the Isle of Man in 1908, but only recently determined. It occurred on Slieau Monagh, the northern shoulder of Snaefell, at about 1000 ft. Previously in Britain this rare species had only been found as an alpine plant at from 2700 to 4100 ft. in the Highlands of Scotland, so that its occurrence in the Isle of Man shows a remarkable extension of its range.

The best thanks of the Society are due to Messrs. Knight and Jones for their valuable services as referees.

ALBERT WILSON.

SEDBERGH,

March 19th, 1923.

Statement of Accounts for 1924.

RECEIPTS.					
			£	s	d.
By Balance, Sect. I.	...	...	2	19	5
Sect. II.	...	...	0	18	11
„ Sale of Publications ...	...	..	3	18	4
„ Subscriptions, Sect. I.	...	...	0	9	7
Sect. II.	...	...	8	15	0
	...	...	8	15	6
			17	10	6
			£21	18	5

REV. R. JACKETT,
Hon. Treasurer,
Cranwre Rectory,
Whitland,
Carmarthenshire.

EXPENDITURE.					
			£	s	d.
To Distribution, Sect. I.	...	...	1	14	7
Sect. II.	...	...	1	0	0
„ Printing Post Cards ...	...	...	0	7	6
Report, Sect. I.	...	...	7	7	0
„ „ II.	...	...	4	10	0
„ Secretarial Exp. Sect. I.	...	...	0	10	9
Sect. II.	...	...	1	6	1
„ Carriage of Publications etc. from York ...	...	...	0	7	0
„ Treasurers' Expenses, Sect. I.	...	...	0	6	2
Sect. II.	...	...	0	13	9
„ Prospectus, Stationery and Postages regarding B.B.S.	...	...	0	13	11
„ Balance	...	...	3	1	8
			£21	18	5

J. A. WHELDON, M.Sc.,
Hon. Treasurer,
26, Marchfield Road,
Orrell Park,
Liverpool.

Sphagna.

(An Asterisk (*) denotes New Vice-Comital Records).

Sphagnum fimbriatum Wils. var. *robustum* Braithw. f. *pycnocladum*, Studland, Dorset,* June, 1922, W.R.S., var. *validius* Card. f. *compactum* W., New Forest (11), June, 1922, W.R.S.

S. Girgensohnii Russ. var. *stachyodes* Russ., near Ullapool River, W. Ross, May, 1918, D.L.

S. Russowii W. var. *Girgensohnioides* Russ. f. *virescens* Russ., Edale (57), Sept., 1922, J.H.P.

S. fuscum v. Klinggr. var. *medium* Russ. f. *fuscescens* W., Ben Lawers (88), June, 1922, leg. D. R. Robertson, com. D.L.; f. *heterocladum* W., Ben Griain Beg, E. Sutherland July, 1914, D.L.; f. *anocladum* W., near Helmsdale, E. Sutherland, July, 1913, D.L.

S. rubellum Wils. var. *rubescens* W., Ben Eilideach, W. Ross, May, 1918, D.L.; var. *violascens* W., Darnholme, Goathland (62), Sept., 1875, leg. S. Anderson, com. H.B., teste J.A.W.—“ I prefer to call this var. *versicolor* as it matches a plant so named by Warnstorf ” W.R.S.; var. *purpurascens* Russ., marsh, Redmoor, April, 1921, R.W.S.

S. acutifolium Ehrh var. *pallescens* W. f. *heterocladum* W. Forfarshire (90), May, 1921, leg. D. R. Robertson, com. D.L.; var. *versicolor* W., Seater, Bower, Caithness (109), May, 1909, D.L.

S. quinquefarium W. var. *versicolor* Russ. f. *heterocladum* W., Forfarshire (90), May, 1921, leg. D. R. Robertson, com. D.L.; f. *dasycladum* Wheld., near Ullapool River, W. Ross, May, 1918, D.L.

S. plumulosum Roll. emend. W. var. *viride* W. f. *griseum* W. Braemore, Loch Broom, W. Ross, May, 1922, D.L.; var. *pallens* W. f. *pungens* Wheldon, Braemore, Loch Broom, May, 1922, D.L.; var. *purpureum* W. f. *robustum* W. “ Yes, very characteristic specimens of this beautiful plant ” W.R.S.; var. *versicolor* W., Edale (57), Sept., 1922, J.H.P. “ Yes, one packet contains f. *validum* ” W.R.S.; f. *tenellum* W., Pentre Gove, Herefordshire (36), May, 1922, E.A.; Whitehill of Auchterhouse, Forfarshire, Oct., 1921, leg. D. M. Robertson, com. D.L.; var. *ochraceum* f. *orthocladum* Wheldon, W. Ross (105), May, 1910, D.L.—“ I think this plant too near Warnstorf's f. *congestum* to separate. The branches certainly are erect. I think it would be better to call it a subform of *congestum*—*S. plumulosum* var. *ochraceum* f. *congestum* subf. *orthocladum* ” W.R.S.

S. compactum D.C. var. *subsquarrosum* W. f. *densum* W., Easthampstead (22), Feb., 1918, leg. H.W.M., com. E.A.

S. squarrosum Pers. var. *subsquarrosum* Russ. f. *elegans* Russ. and f. *gracile* Russ., Huntington, Herefordshire (36)*, May, 1922, E.A.

S. teres Angstr. var. *imbricatum* W. f. *compactum* W., Ben Lawers (88), June, 1922, leg. D. R. Robertson, com. D.L.

S. obtusum W. var. *recurviforme* W., Hoch Moor, Cockerham Moss, W. Lancs (60), June, 1900, A.W. and J.A.W., com. J.A.W.

S. amblyphyllum Russ. var. *macrophyllum* W., Cefn Hill, Herefordshire (36),* Sept. 1922, C.H.B. and E.A., com. E.A., var. *mesophyllum* W. f. *sylvaticum* Russ. subf. *imbricatum* W., Redgate (2), Aug., 1921, R.W.S.

S. pulchrum W. var. *fuscoflavens* W., marsh, Redmoor (2), Feb., 1921, R.W.S.; var. *sordido-fuscum* W., and var. *virescens* W. f. *undulatum* W., Wishmoor Common, Bagshot (17), Oct., 1922, leg. H.W.M., com. E.A.

S. recurvum P. de Beauv. var. *majus* Angstr. p. p. f. *sylvaticum* Russ., St. Cleer (2), Aug., 1921, R.W.S.; var. *parvulum* W. Keston Common (16), Dec., 1921, P.W.M.R.—“ This is *S. recurvum* var. *robustum* ” W.R.S.

S. cuspidatum Ehrh. var. *falcatum* Russ. f. *molle* W. subf. *eurycladum* W., Starrick Moor (2), July, 1922, W.R.S.; also Bodmin Moors, Aug., 1922, R.W.S.—“ A form near *eurycladum* ” W.R.S.; f. *rigidum* W. subf. *pungens* Grav., Cheesewring Moors, Aug., 1921, R.W.S.—“ Yes,” W.R.S. Also, Ben Lawers (88), June, 1922, leg. D.R.R., com. D.L., det. J.A.W.

S. molluscum Bruch. Under Mynydd Moel, Dolgelley (48), Aug., 1922, F.R.—“ Is var. *vulgatum* f. *robustum* ” W.R.S.; var. *vulgatum* W. f. *compactum* W., Easthampstead (22), Feb., 1918, leg. H.W.M., com. E.A.

S. obesum W., submerged, birch swamp, Huntington, Herefordshire (36), May, 1922, E.A.; var. *sanguineum* W., St. Cleer (2), Aug., 1920, R.W.S.—“ I think this plant comes best under var. *luxurians* near f. *versicolor*. It is also very near var. *sanguineum* which has also been recorded from the same place, but that plant has more decided red above. I have not seen an authentic plant of either variety ” W.R.S.

S. inundatum R. et W. var. *ovalifolium* W. f. *brachycladum* W., Huntington, Herefordshire (36),* May, 1922, E.A., f. *eurycladum* W. Pentre Gove, Herefordshire, May, 1922, E.A.; var. *lancifolium* W. f. *falcatum* Schlieph., Pentre Gove, Herefordshire (36)*, May, 1922, E.A., var. *diversifolium* W. f. *dasybrachycladum* W., Cefn Hill, Herefordshire (36),* Sept., 1922, C.H.B. and E.A.

S. auriculatum Schimp. var. *ovatum* W. f. *pallidoflavum* W., Cefn Hill (36),* Sept., 1922, C.H.B. and E.A., com. E.A.

S. crassycladum W., St. Breward (2), Sept., 1919, R.W.S.—“*S. crassycladum* var. *diversifolium* near f. *inundatum*” W.R.S. Also White Heath, Harefield (21), Oct., 1922, P.W.M.R.—“Is *S. crassycladum* var. *intermedium* f. *leptocladum*” W.R.S.; var. *magnifolium* W., Pentre Gove, Herefordshire (36),* May, 1922, E. Armitage; f. *plumosum* W., Keston Common (16), May, 1920, W.R.S.; var. *intermedium* W. f. *ovalifolium* W., Stanmore Heath (21), Sept., 1922, P.W.M.R.—“Is f. *leptocladum*” W.R.S.

S. Camusii W. Cradick Moor and St. Cleer (2), Aug., 1921, R.W.S.—“Two gatherings—branch leaves on both sides with numerous pseudopores, with very few small true pores; stem leaves 1.6, fibrillose in upper part; in some of the specimens the fibrils appear at the base.” W.R.S.

S. armoricum W., Wimbledon Common, Surrey, Feb., 1923, W.R.S. New to Britain.—“I think you are right in referring it to Warnstorff's group:—

Br. leaves on both sides multiporose 1. Hyalodermis in one layer. After this the key is unsatisfactory, dividing the species into groups by size of stem leaves—

* St. l. .5—1 mm.

** St. l. 1—1.5 mm.

*** St. l. 1—2 or 3 mm. long, rarely smaller.

Now this is very unsatisfactory. The majority of the stem leaves in your plant are about 1.7 to 1.9 mm. long, and this would bring it to either *S. rufescens* or *S. turgidulum* of our European species. I do not think it is either of these so I place it in the middle group. In this group we have *S. bavaricum*, *S. Camusii* and *S. armoricum* as probable. It is not *S. bavaricum* obviously, leaving only *S. Camusii* and *S. armoricum* to be considered. I did not put the latter in the key. Apart from the size of the leaves, it comes very near both these. The pore system of the st. leaves affords an excellent and tangible character in separating these two:—

1. Both sides of st. l. pauciporose (pores in each angle on inside, mainly aporose on outside)—*S. Camusii*.
2. On inside pores more numerous and frequently in middle between cell walls, on outer side few pores —*S. armoricum*.

On this character I think there can be no doubt that your plant agrees with, and is a form of *S. armoricum*. A further agreement is the habit somewhat like *S. squarrosus* and the occasionally squarrose leaves.

I do not attach much importance to the size of the leaves.

I believe that most of the species vary in this respect and I do not see why *S. armoricum* should not vary like *S. rufescens* and have parallel forms to var. *magnifolium*, etc. If this be so, you could indicate that your plant differs from Warnstorff's original one by calling it var. *magnifolium*." J.A.W., *in litt.*

S. imbricatum Russ. var. *cristatum* W. f. *spectabile* Wheldon, Cwm Bychan (48), July, 1922, D.A.J. and E.A., com. E.A.; var. *affine* W. (*S. turfaceum*), Keston Common (16), May, 1920, W.R.S.

S. papillosum Lindb. var. *normale* W. f. *squarrosulum* Ingham and Wheldon subf. *neglectum* Ing. and Wh., East-hampstead Moor (22), Feb., 1918, leg. H.W.M., com. E.A.; f. *brachycladum* W. subf. *flavofuscum* Wheldon, Ben Eilideach, W. Ross, May, 1918, D.L.; f. *confertum* W. subf. *fuscoluteum* Wheldon, Bower, Caithness, May, 1918, D.L.; var. *sublaeve* Limpr. f. *breviramosum* W., Pentre Gove, Herefordshire (36),* May, 1922, E.A.

S. cymbifolium Ehrh. var. *glaucescens* W. f. *squarrosulum* Pers. subf. *deflexum* W. Braemore, Loch Broom, W. Ross, May, 1922, D.L.

True Mosses.

Andreaea Rothii W. and M. var. *falcata* Lindb. Rocks, Yes Tor (4), at 2028 ft.; Aug., 1922, D.B.—“ This is typical *A. Rothii* and not var. *falcata*. The leaves taper gradually from the base, and are not suddenly contracted above the wide base into a long, narrow limb as in the variety.” G.B.S.

Tetraphis pellucida Hedw. c fr., Birch swamp, Huntington Park (36), May, 1922, E.A.; Pine Woods, Saas-Almagel, Valais, Aug., 1922, P.W.M.R.; Bremgarten, Berne, Switzerland, Feb., 1916, leg. F. Savery, com. G.B.S.

Catharinea angustata Brid., Barcombe, E. Sussex (14), April, 1898, W.E.N.

Oligotrichum hercynicum Lam., Earthy banks near Cheesewring (2), F.R.

Polytrichum nanum Neck., Saddlescombe (13), May, 1922, A.S.; sandy ground near Leighton Hall, West Lancashire (60), March, 1905, A.W.

P. atoides Hedw., near Tintagel (2), Aug., 1922, leg. A.S.

Buxbaumia indusiata Brid., on firs, Diablerêts, Switzerland, Aug., 1910, D.A.J.

Pleuridium subulatum Rabenh., Saddlescombe (13), leg. A.S., May, 1922.

Ditrichum zonatum Limpr., Cwm Mawr, above Harlech (48), Sept., 1922, D.A.J.; var. *scabrifolium* Dixon, precipices, Cader Idris (48), Aug., 1922, leg. H.N.D., D.A.J. and E.A., com. E.A.; in large sheets, wet rocks, Clogwyn, Snowdon (49), July, 1922, D.A.J.

D. flexicaule Hampe var. *densum* B. and S. Tyn-y-Groes (48), Aug., 1922, R.J. “ Some of these packets contain only *Zygodon Mougeotii* B. and S.” E.A. and G.B.S.

Swartzia montana Lindb., Cader Idris (48), Aug., 1922, leg. D.A.J. and D.B.B., com. D.B.B.

Rhabdoweisia fugax B. and S., roadside near Barmouth (48), Aug., 1922, D.A.J., W.W. and F.R., com. F.R.

R. crenulata Jameson, c. fr., adit, Moelwyn Bach (48), September, 1922, D.A.J.

Dichodontium pellucidum Schp. var. *compactum* Schp., on wet stones, Mont Mort, Grand St. Bernard, Switzerland, July, 1922, P.G.M.R.

Dicranella heteromalla Schp., Par, E. Cornwall (2), July, 1921, W.R.S.

D. Schreberi Schp., marsh, Elphin (I.), Aug., 1922, J.D.H.

Blindia acuta B. and S., Dolgelley (48), Aug. 1922, R.I.; var. *trichodes* Braithw., Tyn-y-groes (48), Aug., 1922, R.J.

Campylopus flexuosus Brid., Burnham Beeches (24), Aug., 1920, leg. A.S. and W.R.S., com. A.S. (apparently N.C.R. for V.C. 24); rocks, Saas-Fée, Valais, 1922, P.W.M.R.; var. *uliginosus* Ren.? Burnham Beeches (24), Aug., 1920, A.S. "I do not think that the Burnham Beeches *Campylopus* is referable to var. *uliginosus*. The habit is not quite right, though approaching it; the stems are fairly tomentose, and the leaves are flexuose when dry, while in the var. they are generally rigid." H.N.D.; var. *zonatus* Limpr. Tyn-y-groes (48), Aug., 1922, E.A." Some of the tufts in these packets have the stems less red and shorter, also the leaves not secund. Probably the gathering will pass as var. *zonatus*, but somewhat stunted." G.B.S.; Tyn-y-groes (48), Aug., 1922, R. Jackett; also "falcate form," Tyn-y-groes, Aug., 1922, E.A. "I think these specimens belong to the var. *zonatus*." G.B.S.

C. fragilis B. and S. c. fr., Artro Valley above Harlech (48), April, 1922, D.A.J.

C. setifolius Wils., Tyn-y-groes, Aug., 1922, E.A.; var. *intermedius* Jones, banks, Cwm Mawr River, above Harlech (48), Oct., 1921; also, Llyn Gader, Cader Idris (48), Aug., 1922, H.N.D. and D.A.J.

C. atrovirens De Not., Keswick (70), Sept., 1922, C.M.C.; var. *gracilis* Dixon, Great End, Scafell Group, April, 1921, L.B.C.T.

C. introflexus Brid., Eagle's Nest, Killarney (I. 1) Aug., 1905, D.A.J.; near Locarno, Switzerland, April, 1914, leg. F. Savery, com. G.B.S.

Dicranodontium longirostre B. and S., Tyn-y-groes (48), Aug., 1922, R.J.

Dicranum molle Wils., Ben Nevis (97), Aug., 1909, D.A.J.

D. spurium Hedw., boggy heath, Skipwith, Yorkshire (61), Oct., 1922, W.B.

D. Bonjeani De Not., Stanmore Heath (21), 1922, P.W.M.R.

D. scoparium Hedw., unusual form growing on trees, Burnham Beeches (24), Aug., 1920, A.S. "Poor, stunted specimens. Some of the packets contain more *Campylopus flexuosus* than *D. scoparium*." G.B.S.; var. *orthophyllum* Brid., Craig Chailleach (88), Aug., 1922, W.N.T. "The leaves in this specimen are smooth at the back and almost entire towards the point. I think the plant should go under var. *spadiceum* rather than var. *orthophyllum*." G.B.S.

D. majus Turn. c. fr., rocky bank, Bickleigh (3), Aug., 1922, D.B.; Keswick (70), Sept., 1922, C.M.C.

D. fuscescens Turn., millstone grit rocks, Wyresdale (60), Sept., 1900, near var. *falcifolium*, J.A.W.; also, Hell Crag, Wyresdale, Sept., 1900, J.A.W.; also c. fr. trees, Rothiemurchies Forest, Easternness (96), July, 1908, A.W. and J.A.W., Ben Lawers (88), Aug., 1922, W.N.T.

D. brevifolium Lindb., rocks by the river, Abisko, Tornean Lapland, Aug., 1907, leg. H.N.D. and W.E.N., com. W.E.N.

D. Scottianum Turn. Roomie Gill, Orkney (111), June, 1922, L.B.C.T. "Is *D. fuscescens*." G.B.S.

D. flagellare Hedw., Harrow Weald Common (21), Nov., 1922, P.W.M.R. "This is *Campylopus flexuosus* Brid. The broad nerve, which is nearly half the width of the leaf towards the base, and the inflated auricles, are typical of this species; in *Dicranum flagellare* the nerve is quite narrow and the leaf-base hardly dilated." G.B.S.

D. viride Schp., Superbagnères de Luchon, Hautes Pyrénées, Aug., 1902, leg. H.N.D. and W.E.N., com. W.E.N.

D. arenaceum, Leipsa., Bohemia, Dec., 1887, leg. H. Schmidt, com. H.B.

D. montanum Hedw., on roots of trees, Bremgarten, Berne, Switzerland, Feb., 1916, leg. F. Savery, com. G.B.S.

D. uncinatum C.M., wood by Loch Assynt, W. Sutherlandshire, July, 1921, H.H.K. and W.E.N.

D. Sauteri Schp., trees near the Upper Gosan Lake, Salzkammergut, Aug., 1908, W.E.N.

Fissidens viridulus Wahl., on earth in hedge banks, Silverton (3), March, 1915, G.B.S.

F. incurvus Starke, Monk's Mere, Hendon (21), Dec., 1922, P.W.M.R. "I think these packets are correctly named, but with such very young fruit it is difficult to separate *F. incurvus* from *F. viridulus*." G.B.S.

F. crassipes Wils., Cassiobury Lock, Watford (20), June, 1922, A.S.

F. polypkyllus Wils., cave near Cob, Minffordd (48), April, 1922, D.A.J.

Octodiceras Julianum Brid., Quai Voltaire, Paris, Aug., 1922, P.W.M.R.

Grimmia apocarpa Hedw. var. *rivularis* W. and M., waterfall, River Plym (3), Aug., 1922, D.B.

G. conferta Funck var. *pruinosa* Braithv., on rotten trap rocks near Belfast (I. 39), Jan., 1923, W.R.M.

G. maritima Turn., Boscastle (2), Aug., 1922, A.S.

G. funalis Schp., Creag-an-Lochain-Lairige, Killin (88), Aug., 1922, W.N.T. "This is *Grimmia torquata* Hornsch. Note the coherent cushions, brown below, and the

spirally contorted leaves with very short hyaline points." G.B.S.

G. torquata Hornsch., Cader Idris (48), Aug., 1922, R. Jackett; Harter Fell, Westmoreland, Sept., 1900, J.A.W. and A.W., com. A.W.

Grimmia mollis Bry-Eur., bed of rivulet at 2,500 m., Mont Mort, Grand St. Bernard, Switzerland, July, 1922, P.G.M.R.

G. orbicularis Bruch, Scar limestone rocks, near Silverdale (60), March, 1910, leg. A.W. and J.A.W., com. J.A.W.; vineyard walls, Yvorne, Canton Vaud, Switzerland, June, 1911, P.G.M.R.

G. Lisae De Not, Vendée, rochers de la Vallée de la Mère, Feb., 1920, leg. J.C., com. W.B.

G. trichophylla Grev., rocks in stream, Tyn-y-groes (48), Aug., 1922, W.B.

G. Stirtoni, Schp., Midsummer Hill Camp, Malvern Hills (36),* Jan., 1923, C.H.B.; Arthur's Seat, Edinburgh (83), May, 1904, H.B.; rocks by roadside, Aberamffra, Barmouth (48), Oct. 1911, P.G.M.R.

G. Schultzi Wils., Loire Inférieure, Lavenay, rochers dans une lande près de l'Ile, May, 1916, leg. J.C., com. W.B.

G. Hartmani Schp., Tyn-y-groes (48), Aug., 1922, R.J.

G. robusta Ferg., Maentwrog Valley (48), Nov., 1920, D.A.J.

G. patens B. and S., Braeriach, at 2400 ft., East Inverness, July, 1908, leg. J.A.W. and A.W., com. A.W.; Moyrnheas Burn, Loch Tay (88), Aug., 1922, W.N.T.

G. arenaria Hampe, wall top, Dolgelley (48), Aug., 1922, W.B.

Racomitrium ellipticum B. and S., c. fr., Cader Idris (48), Aug., 1922, leg. D.A.J. and E.A., com. E.A.

R. heterostichum Brid., var.? Brown Willy (2), Aug., 1922, A.S. "I think this goes best under var. *gracilescens* B. and S., the diaphanous leaf points being very short." G.B.S.

Coscinodon cribrosus Spruce, Barmouth (48), July, 1919, A.S.

Hedwigia ciliata Ehrh., Cregrina (43), Aug., 1922, R.J.; var. *striata* Wils., boulder, Llyn Gafr, Cader Idris, Aug., 1920, D.A.J.

Phascum cuspidatum Schreb., Saddlescombe (13), May, 1922, A.S.

P. Floerkeanum W. and M. (mixed with *P. cuspidatum*), Chalky field near Great Bedwyn, North Wilts, (7),* Sept., 1922, leg. C. P. Hurst, com. E.A.

Pottia recta Mitt., Box Hill (17), Dec., 1922, A.S.

Tortula aloides De Not., Stoke Road, Exeter (3), Dec., 1918, leg. W.R.S., com. A.S.; Williton (5), Nov., 1922, A.W.

T. membranifolia Hook. (= *Crossidium squamigerum*), vineyard wall above, Territet, Cant. Vaud, Jur., Switzerland, May, 1911, P.G.M.R.

T. cernua Lindb. c. fr., Permian belt, v. c. 63, March, 1922, J.H.P.

T. atrovirens Lindb. (*Desmatodon nervosus* B. and S.), hills above Kapoudjilar, Macedonia, March, 1918, leg. J.C., com. W.B.

T. Vahlia Wils., crumbling sandstone bank, Dymock (34), March, 1921, L.B.C.T.

T. angustata Wils., Mordiford (36), May, 1922, C.H.B.

T. mutica Lindb., by River Thames, Windsor (22), Aug., 1918, A.S.

T. spuria Amann, hot dry walls below Monterge, Sion, Valais, Switzerland, May, 1921, P.G.M.R.

T. ruralis Ehrh., Neyland (45), Oct., 1922, R.J.

T. aciphylla B. and S., at 6000 ft., Rochers de Naye, Montreux, Vaud, Switzerland, June, 1911, P.G.M.R.

Barbula sinuosa Braithw., Ballochmore, near Enniskillen (1. 33), March, 1922, W.N.T.

B. paludosa Schwaegr., rocks., Baie de Montreux, Vaud, Switzerland, May, 1911, P.G.M.R.

B. Nicholsoni Culmann, near Exeter (3), April, 1915, leg. H. Boyden, com. A.S.

Leptodontium flexifolium Hampe, on thatch, Williton (5), Nov., 1922, A.W.

Weisia curvirostris C. M. var. *commutata* Dixon, Nant-y-Ffrith near Wrexham (50), Aug., 1913, D.A.J.; also, rocks, by the Artle Beck (60), June, 1915, A.W.; var. *scabra* Lindb., dripping rock of basal conglomerate, Sedbergh (65), Jan., 1921, A.W.; also, rock, between Morenish Burn and Edramuchy Burn, near Killin (88), Aug., 1922, W.N.T. "I think this plant is good enough for the variety. The degree of scabrousness varies in some of the leaves, while the upper ones are narrow and the cells rather long. Generally, however, the areolation is subquadrate and the papillosity is quite distinct in the cells, back of the nerve and the stem." D.A.J.

Trichostomum crispulum Bruch var. *elatum* Schp., Tecwyn Ravine above Talsarnau (48), Nov., 1922, D.A.J.

T. mutabile Bruch var. *cophocarpum* Schp., rocks, Cader Idris (48), Aug., 1922—leaves with long, sharp points, E.A. "This plant was submitted to Miss Armitage, who on re-examination referred it to *Weisia rupestris* C.M., in which

opinion Mr. Dixon concurs." F.R.

T. nitidum Schp., Scar limestone, Silverdale, W. Lancs. (60), June, 1911, J.A.W.

T. tortuosum Dixon, c. fr., Creggagh (I. 35), July, 1922, J.D.H.; var *fragilifolium* Dixon? Cliffs on Cader Idris (48), Aug., 1922, E. Armitage. "I should agree with the suggested identification." W.E.N.

Cinclidotus Brebissoni Husnot, (34—36) (county boundary), on tree trunk subject to inundation, April, 1922, L.B.C.T.

Eucalypta vulgaris Hedw., Mickleham (17), Dec., 1922, leg. A.S. with W.R.S., com. A.S.

E. rhabdocarpa Schwaeg., Craig Cailleach (88), Aug., 1922, W.N.T.

Anæctangium compactum Schwaeg., Cader Idris (48), Aug., 1922, W.B. and R.J.; also, c. fr. E.A.; c. fr. Cwm Moch, Talsarnau (48), Oct., 1922, D.A.J.; Brown Gill, Great Langdale, Westmoreland, May, 1908, J.A.W. and A.W.

Zygodon viridissimus R. Brown, c. fr., wall top, Fowey (2), May, 1922, D.B.; Elphin (I. 25), 1922, J.D.H.; Monk's Cove (45), Jan., 1923, R. J.

Ulota crispa Brid., on oak and alder, Tyn-y-groes (48), Aug., 1922, W.B.

U. phyllantha Brid., tree, Fowey (2), May, 1922, D.B.; Monk's Cove (45), Jan., 1923, R.J.

U. Hutchinsiae Hamm., Tyn-y-groes (48), Aug., 1922, R. J. and W.B. "The moss is correctly named but both gatherings are much mixed with *Rhacomitrium protensum* Braun c. fr. to the extent of more than 50 per cent. in some packets." W.E.N.

Orthotrichum Lyellii Hook. and Tayl., tree by River Tummel, Pitlochry (88), Sept., 1922, W.N.T.; ash trees, Semur-en-Auxois (Côte d'Or) Sept., 1922, P.W.M.R.

O. affine Schrad. var. *rivale* Wils., willows, Moseley Common (36), May, 1922, E.A.

Schistostega osmundacea Mohr., hedge bank, St. Keyne (2), June, 1922, D.B.

Splachnum ampullaceum L., Breadalbane Mts. (88), leg. D. A. Haggart, com. W.N.T.

Tetraplodon Wormskjoldii Lindb., Breadalbane Mts. (88), leg. D. A. Haggart, com. W.N.T.

Nanomitrium tenerum Lindb., Crowborough, E. Sussex (14), Oct., 1898, W.E.N.

Physcomitrella patens, B. & S., Longleat, Aug., 1922, St.J.M.

Physcomitrium sphaericum Brid., Hedgecourt Pond, Felbridge, Surrey (17), Oct., 1921, W.E.N.

Funaria calcarea Wahl., Berwig near Wrexham, Aug., 1922, D.A.J.; Silverdale, W. Lancs., April, 1918, A.W.

Aulacomnium palustre Schwag., *c. fr.*, Arran (100), June, 1900, St.J.M.; with flagelliform pseudopodia, Pentre Gove (36), May, 1922, E.A.; var. *imbricatum* B. & S., Mahollam, Herefordshire (36),* May, 1922, E.A. "This form possibly might be brought under the variety but it is not a very well-marked form of it." W.E.N.

A. androgynum Schwaeg., *c. fr.*, Alton, June, 1868, ex. coll. W. Wilson *per* W.R.S., com. A.S.; Harrow Weald Common (21), Nov., 1922, P.W.M.R.

Catoscopium nigrum Brid., *c. fr.*, Ben Lawers, July, 1910, St.J.M.

Conostomum boreale Swartz., above Loch Coire an Lochain, Braeriach (96), June, 1911, A.W.; Ben Lawers (88), Aug., 1922, W.N.T.

Bartramia Oederi Swartz., Craig Cailleach, Killin (88), Aug., 1922, W.N.T.

B. stricta Brid., Stanner (43), Oct., 1920, L.C.B.T.; Macedoine, Collines au-dessus de Kapoudjilar, leg. J.C.

B. Halleriana Hedw., Long Sleddale (69), July, 1904, A.W.; Saas-Fée, Valais, 1922, P.W.M.R.

Philonotis Wilsoni Braithw., *c. fr.* Cwm Bychan (48), July, 1922, E.A.; Bwlch Tyddiad, Cwm Bychan (48), Oct., 1922, D.A.J.

P. rigida Brid., Harlech (48), April, 1922, D.A.J.

P. caespitosa Wils., Talsarnau (48), Sept., 1921, D.A.J.; var. *laxa*, dripping rock, St. Blazey (2), July, 1922, D.B.

P. seriata Mitt., Wells of Dee, Braeriach (92), alt. 4,000 ft., June, 1911, leg. A.W. "This plant did not agree with the specimens of *P. seriata* Mitt. in my herbarium, as the leaves are scarcely if at all seriate, and the nerve is not very strongly developed. I therefore submitted it to Mr. Dixon who says 'I should call this *P. fontana* approaching *P. adpressa* very nearly.' " W.E.N.

Breutelia arcuata Schp., Tyn-y-groes, Dolgelley (48), Aug., 1922, W.B.

Webera commutata Schp., Summit of Cader Idris (48), Aug., 1920, D.A.J., also, Aug., 1922, F.R.

Bryum turbinatum Schwaeg. var. *latifolium* B. & S. *c. fr.*, Isenard, Diablerets, Switzerland, Aug., 1910, D.A.J.

B. Duvalii Voit, Lawers (88), Aug., 1922, W.N.T. "Yes, associated with what I presume is a form of *Brachythecium rivulare*, having remarkably broad, strongly plicate and decurrent leaves, often suddenly apiculate, and with a strong, frequently forked nerve. I do not know this variety." J.A.W.

B. pseudo-triquetrum Schwaeg. var. *compactum* B. and S., Morfa, Harlech (48), July, 1922, D.A.J.

B. binum Schreb., Tyn-y-groes, Dolgelley (48), Aug., 1922, W.B.

B. caespiticium L., near Exeter (3), March, 1918, leg. W.R.S., com. A.S.

B. capillare L. var. *torquescens* Husn., Harlech Sandhills (48), May, 1913, D.A.J.

B. atropurpureum W. and M. var. *gracilentum* Tayl., on soil in flower pots, Silverton (3), Dec., 1922, G.B.S.

Mnium rostratum Schrad., Harrow Weald Common (21), 1922, P.W.M.R.; near Snaefell, Isle of Man (71), July, 1902 and Feb., 1903, H.B.

M. serratum Schrad., Craig-an-Lochain-Lairige, Killin (88), Aug., 1922, W.N.T.

M. orthorrhynchum B. and S., Craig Cailleach, Perthshire (88), Aug., 1922, W.N.T.

M. riparium Mitt., bank of a stream near Cuckfield, W. Sussex (13), June, 1917, W.E.N.

M. cinclidioides Hübn., banks of Glaslyn River near Glaslyn Inn, Portmadoc on Merionethshire side (48), April, 1922, D.A.J.

M. punctatum L., dripping rock, St. Blazey (2), July, 1922, D.B.

Fontinalis antipyretica L. in a well, St. Keyne (2), June, 1922, D.B.; var. *gracilis* Schp., on stones in Dozmary Pool (2), Aug., 1921, D.B.

Cryphaea heteromalla Mohr, Monk's Cove (45), Jan., 1923, R.J.

Neckera crispa Hedw. c. fr., Cregrina (43), Aug., 1922, R.J.; scar limestone, Silverdale, W. Lancs., Jan., '1910, J.A.W.; rocks and cliffs, Richmond (65), Jan., 1923, N. Temperley, and Creggach (I. 25), July, 1922, J.D.H.; var. *falcata* Boul., Cader Idris (48), Aug., 1922, E.A.

Neckera pumila Hedw. var. *Philippean* Milde, trees, Fowey (2), May, 1922, D.B.

Pterygophyllum lucens Brid., dripping rock, St. Blazey (2), July, 1922, D.B.; also, Becka Brook (3), Nov., 1918, leg. W.R.S., com. A.S.

Leucodon sciuroides Schwaeg., Mickleham (17), Dec., 1922, A.S.; also Cregrina (43), Aug., 1922, R.J.

Pterogonium gracile Swartz var. *harlacense* Jones, trees, Artro Valley, Harlech (48), Mar., 1921, D.A.J.

Habrodon Notarisii Schp., plane trees, Killin (88), Aug., 1920, W.N.T.

Antitrichia curtipendula Brid., near Dolgelley (48), Aug., 1922, D.B.B.; Cader Idris (48), Aug., 1922, R.J.;

and by River Tummel, Pitlochry (88), Sept., 1922, W.N.T.

Myurella julacea B. & S., Lochain-na-Chait, Ben Lawers (88), Aug., 1922, D.A.J.

Leskea polycarpa Ehrh., Beaulieu (11), June, 1920, St.J.M.; also, Cregg (43), Aug., 1922, R.J. "These specimens are very much mixed with *Brachythecium rivulare* B. & S., *Amblysiegium serpens* B. & S., and other things," W.E.N.

Anomodon viticulosus Hook & Tayl., Lyndhurst (11), June, 1922, St.J.M.; also, rye field, Elphin (I. 25) Sept., 1922, J.D.H.

Leptodon Smithii Mohr., near Brighton (13), Aug., 1915, leg. W.R.S., com. A.S.; also, Williton (5) Nov., 1922, A.W.

Pterigynandrum filiforme Hedw., on beech tree, Bremgarten, Berne, Switzerland, Feb., 1916, leg. F. Savery, com. G.B.S.

Pseudoleskea catenulata (Brid) Kindb., calcareous rocks, Champéry, Valais, Switzerland, May, 1911, P.G.M.R.

Thuidium abietinum B. & S., Villeneuve, Vaud, 1922, P.W.M.R.

T. hystricosum Mitt., Box Hill (17), Nov., 1922, P.W.M.R.

T. delicatulum Mitt., Wasdale Hd., Cumberland (70), April, 1922, W.N.T.

Climacium dendroides W. and M., Borrow Wood, Keswick (70), Sept., 1922, N.T.; also Gower (41), Oct., 1922, R.J.

Cylindrothecium concinnum Schp., Cudham (16), on chalk, July, 1922, St.J.M.

Orthothecium rufescens B. and S., Craig-an-Lochain-Lairige, Killin (88), Aug., 1922, W.N.T.

Brachythecium glareosum B. and S., thatched roof, Ibthorpe, Hants, Nov., 1910, leg. C. P. Hurst, com. H.N.D.; rocks, Bracklinn Falls, Callander, Perthshire, July, 1897, and north side of Craig Chailleach, Perthshire, on rock alt. 3,000 ft., July, 1897, H. N. D.; also, Edw. v. c. 43, Aug., 1922, R.J. "Is *Sanionia uncinata* (Hedes) Loeske var. *sueta* (Sanio), J.A.W.

B. albicans B. and S., mud cap of wall, Staverton, Northants, Oct., 1887, H.N.D.

B. salebrosum var. *palustre* Schp., among grass in field, Plain Woods, Blisworth, Northants, June, 1899, H.N.D.

B. rutabulum B. and S. var. *robustum* B. and S., tree trunk, Four Slips Copse, Steane, Northants, Sept., 1899, H.N.D.; f. *palustre*, Byfield Reservoir, Northants, April, 1895, H.N.D.

B. rivulare B. and S., Par, Cornwall (2), July, 1921, W.R.S.; forma; marsh, Fowey (2), June, 1922, D.B.; forma; Cader Idris (48), Aug., 1922, F.R.; f. *homomalla*, rocks in stream, Bolton, W. Yorkshire, July, 1896, H.N.D.; var. *latifolium* Husn., rivulet above Llyn-y-cae, Cader Idris (48),* July, 1901; also, Twll Du, Ogwen (49), N. Wales, July, 1888, H.N.D.; var. *chrysophyllum* Spr., Glen Dubh, Inchnadamph, Sutherland, July, 1899, W.E.N., E. S. Salmon and H.N.D.

B. velutinum B. and S., Ravensworth, N.T.—“Is chiefly *Brachythecium rutabulum* and *Amblystegium serpens*,” J.A.W.; also, on tree, Ravensworth—“Correct” J.A.W.; and Strawley and on ground, Ravensworth—“*Eurhynchium praelongum*” J.A.W.

B. populeum B. and S., wall, Clapham, W. Yorkshire, July, 1896, H.N.D.

B. plumosum B. and S., Erwood, The Wye, Aug., 1922, R.J.

B. purum Dixon, c. fr., Clawton, Devon, Jan., 1923, H.H.H.

B. cirrosum Schp., Ben Lawers, Perthshire, H.N.D.

Hyocomium flagellare B. and S., submerged form, River Lank, Bodmin Moors, Cornwall, Aug., 1886, H.N.D.; also, c. fr., Nant-y-daren, Corris Valley, Merioneth, July, 1901, H.N.D.; c. fr., Nantcol Ravine, Llanbedr, Merioneth, Oct., 1920, D.A.J.; rocks by stream, c. fr., Aber, Carnarvon, N. Wales, Jan., 1899, H.N.D.

Eurhynchium piliferum B. and S., Ashton, Northants, March, 1894, H.N.D.; c. fr. Nantcol Ravine, Llanbedr, Merioneth, Nov., 1903, and later, leg., D.A.J., com., H.N.D.

E. crassinervium, B. and S., Filching Glen, Eastbourne, Sussex, Jan., 1888, H.N.D.; also, Monk's Cove (45), Jan., 1923, R.J.; and c. fr. Quarry Tip, Eastnor (36), C.H.B. and L.B.C.T.

E. speciosum Schp., Hedgebank by water, Ulleskelf, Yorkshire, Dec., 1897, leg. W. Ingham, com. H.N.D.; also, near Porth Dafarch, March, 1856, ex. coll., W. Wilson, com. A.S.

E. praelongum Hobk. var. *Stokesii* Brid., on stone, Fowey (2), 1920, D.B.

E. Swartzii Hobk. c. fr., banks and stones, Boughton Park, Northampton, Jan., 1898, leg. H.N.D.

E. pumilum Schp., Trevicket Mill Stream, Erwood, Brecon, July, 1903, H.N.D.; granite trough, Fowey (2), Feb., 1922, D.B. “I think this is a small state of *Amblystegium Juratzkanum*, the leaves being erect-patent and the basal marginal cells are rectangular and not quadrate, other-

wise it is near *A. serpens*. The leaves are not sharply serrate as in *E. pumilum* and have much longer points." J.A.W.

E. Teesdalei Schp., wet rocks, Malham Cove, Yorkshire, July, 1896, H.N.D.

E. tenellum Milde, Mickelham (17), Sept., 1922, A.S.; also, Monk's Hill (45), Jan., 1923, R.J.

E. myosuroides Schp. var. *rivulare* Holt, Torrent Walk, Dolgelley, Aug., 1922, W.B. "The type, or a slight approach only to the variety. The colour and shape of the leaves will hardly do for the variety, in which the leaf points are much less narrowly and longly acuminate." J.A.W.; also, Arran Valley, Dolgelley, Aug., 1922, E.A. "Yes, characteristic." J.A.W.; and, Torrent Walk, Dolgelley, Aug., 1922, W.B. "This is *Hyocomium flagellare*." J.A.W.; var. *cavernarum*, Llechwedd, Harlech (48), Jan., 1923, D.A.J.

E. circinatum B. and S., Durlleston, Swanage (9), Nov., 1921, W.E.N.

E. meridionale De Not., stony banks by the sea, Porthand (9), Nov., 1921, W.E.N.

E. megapolitanum Milde var. *meridionale* Schp., Macedoine; ravine entre Kapoudjilar et Hortchiackeij, Feb., 1918, leg. J.C., com. W.B.; type, Silvertown (3), Nov., 1922, G.B.S.

Sematophyllum demissum Mitt., Tyn-y-groes (48), Aug., 1922, R.J.

S. micans Braithw., dripping rock, Borrowdale, June, 1920, L.B.C.T.

H. Haldanianum Grev., ad margines fossarum in silvaticis prope Lochn (Gelria) March, 1859, leg. Dr. Th. Sprée, com. H.B.

Plagiothecium elegans Sull., with branchlets, Hergest Ridge (36), May, 1922, E.A.

P. denticulatum B. and S. var. *aptychus* Spruce, Abbey Wood (16), Aug., 1922, St.J.M.

P. silvaticum B. and S., var. *Sullivantiae* Spruce, Ravensworth and Lambton, N.T. "Some of these are autoicous, and represent *P. denticulatum*. Other packets contain only *P. elegans*. I found no *P. silvaticum* in any." J.A.W.

P. undulatum B. and S. (imbricate form), slopes of Cader Idris (48), Aug., 1922. "A luxuriant plant in deep tufts, 3, 4 or more inches long, on moist, open grassy mountain slope, forming conspicuous patches of creamy green colour. Leaves all strongly imbricated round the stem; this gives the plant quite a different aspect to the common complanate form. See Handbook, p. 489: 'In dry places the branches become shorter, with more densely imbricated,

less complanate leaves.' A specimen is enclosed, for comparison, of an imbricated tufted form from Co. Kerry, which answers to the description better than the present form. Could one venture to suggest that the wording might possibly be modified to include all imbricate forms." E.A. "The *Plagiothecium undulatum* from Cader may very well be called f. *imbricata*, I think, although it is a less distinct form than the particular plant referred to in the Handbook, and that sent by Miss Armitage from Brandon Mt." H.N.D.

Amblystegium filicinum De Not, var. *Whiteheadii* Wheldon, wet dunes near Ainsdale, South Lincs, April, 1909, J.A.W.; also, Oct., 1912, W.G.T.; var. ? wet rock, Pentre Higgin, Herefordshire, Sept., 1922, C.H.B. and E.A. "A very slender elongate aquatic form with much denuded leaves and many paraphyllia for which I can suggest no varietal name." J.A.W.

Hypnum elodes Spruce, Southport, May, 1884, *Ex coll.* W. Wilson *per* W.R.S., com. A.S.

H. polygamum Schp. var. *fallaciosum* (Turn) Milde, Marais à Hobsken, Anvers, Sept., 1913, leg. H.V., com. W.B. "Yes = var. *stagnatum* Wilson." J.A.W.

H. stellatum Schreb., Fonab Moor, near Pitlochry (88), Sept., 1922, W.N.T.; Saas Fée, Valais, 1922, P.W.M.R. "I should put this under var. *protensum* Schp." J.A.W.

H. chrysophyllum Brid., Coulsdon (17), May, 1920, leg. W.R.S., com. A.S.

H. aduncum Hedw. var. *aquaticum* Sanio? Higham (16) Jan., 1923, St.J.M.—"Is *Drepanocladus polycarpus* (Bland) var. *attenuatus* (Boul.), J.A.W.; var. *polycarpon* Bland., prairie humide à Deurne, Anvers, Sept., 1916, leg. H.V.B., com. W.B.

Drepanocladus Sendtneri (Schp), wet dunes between Formby and Freshfield, South Lincs., (59), Aug., 1908, J.A.W.; also, Gullane Links (82), July, 1912, leg. J. McAndrew, com. W.E.N.

H. lycopodioides Schwaeg., Newborough Sandhills (52), Aug., 1907, D.A.J. " = *Drepanocladus lycopodioides* (Schwaeg.) Wtf." J.A.W.

Drepanocladus Wilsoni (Schp.) Roth., wet dunes near Freshfield, S. Lincs (59), May, 1905, J.A.W.; also, June, 1911, W.G.T.

H. fluitans L. var. *gracile* Boul., moorland pool, St. Cleer (2), 1921, D.B.—"Yes = *Warnstorfia fluitans* (Dill) Loeske var. *gracile* (Boul.); *H. fluitans*, Holy Isle (68), July, 1922, N.T. "Is *Drep. aduncus* (Hedw) Roth. var. *Wheldoni* Ren." J.A.W.; in water (not acid), Wicken Fen, Cambridge, Aug., 1922, N.T.—"Is *Drep. polycarpus* (Bland)

Wtf var. *intermedius* (Schp.) f. *laxa* (Schp.).” J.A.W.; var. *falcifolium* f. *viridis* N. Boul., Mare à Capellen, Anvers, Oct., 1913, H.V.B., com. W.B.

H. exannulatum Güm. var. *pinnatum* f. *stenophylloides* Pentre Gove (36), May, 1922, E.A. “A weak form of *Warnstorfia stenophylla* (Wils.) Wheld.” J.A.W.

H. uncinatum Hedw. c. fr. Finlarig Burn, Killin (88), Aug., 1922, W.N.T. “Yes=*Sanionia uncinata* Loeske var. *sueta* (Sanio) Wheldon.” J.A.W.

H. vernicosum Lindb., Marais à Warrel, Anvers, July, 1886, leg. H.V.B., com. W.B.

Limprichtia revolvens Loeske, pale form, and, also, var. *typicum* New Forest (11), June, 1922, W.R.S.

H. intermedium Lindb., Cefn Hill, Herefordshire (36), Sept., 1922, C.H.B. and E.A.—“Yes=*Limprichtia intermedia* (Lindb.) Loeske f. *vera* (Sanio).” J.A.W.; Cader Idris (48), Aug., 1922, R.J.—“A slender form of *H. revolvens*—*Limprichtia revolvens* (Sw) Loeske.” J.A.W. *Limprichtia intermedia* (Schp.) Loeske var. *Cossoni* (Ren) forma, Freshfield (59), Aug., 1908, J.A.W.

H. commutatum Hedw., Bosinney Cove near Tintagel (2),* in waterfall, Aug., 1922, A.S.; various localities, N.T. “Mostly *Cratoneuron glaucum* (Lam.) subsp. *falcatum* (Hedw).” J.A.W.

Harpidium—? Under Cader Idris (48),* Aug., 1922, E.A.—“Is *Limnobium ochraceum* var. *complanatum* Milde.” J.A.W.; drying hill top, Hegert Ridge, at 1300 ft., Aug., 1922, E.A.—“Is *Warnstorfia fluitans* (Dill) Loeske var. *falcata* Schp—a starved state.” J.A.W.

H. cupressiforme L. var., Brown Willy (2), on rocks at summit, Aug., 1922, A.S.—“Is var. *resupinatum*” J.A.W.; var. *filiforme* Brid., beech trees, Bremgarten, Berne, Switzerland, Feb., 1916, leg. F. Savery, com. G.B.S.—“This does not show the neat complanate habit and bifarious arrangement of the leaves found in this variety. I should prefer to consider it a form of var. *longirostre* Schp., which I believe Mr. Dixon unites with var. *resupinatum* Wils.” J.A.W.; var. *minus* Wils.?, Stoke Wood, Exeter (3), March, 1918, leg. W.R.S., com. A.S.—“Yes!” J.A.W.; var. *mamillatum* Brid., Tyn-y-groes (48), Aug., 1922, E.A.; var. *elatum* B. and S.?, Mickleham (17), on ground, Sept., 1922, A.S. “Is, I think, a rather robust state of var. *tectorum* Brid.” J.A.W.

H. fastigiatum Schp. ad saxa convallium alpest., Helv. Æstate, 1847, leg. W. P. Schimper, com. H.B.

H. callichroum Brid., Tyn-y-groes (48), Aug., 1922, D.A.J. and E.A., com. E.A.

H. molluscum Hedw., tufted form near var. *fastigiatum*?
Pentre Higgin, Cefn Hill (36), Sept., 1922, E.A. "So I should name it." J.A.W.

H. crista-castrensis L., wood, near Killin (88), Aug., 1922, W.N.T.

H. palustre Huds. var. *subphaericarpon* B. and S.,
Torrent Walk, Dolgelley (48), Aug., 1922, R.J.

H. (Hygrohypnum) molle (Dicks) Kindb., Grand St.
Bernard, Switz., July, 1922, P.G.M.R.

H. eugyrium Schp., The Arran (48), Aug., 1922, R.J.—
"Yes, but some packets contain a mixture, and another
consists entirely of *Brachythecium plumosum*." J.A.W.;
var. *Mackayi* Schp., Torrent Walk, Dolgelley (48), Aug.,
1922, E.A.

H. ochraceum Turn. var. *flaccidum* Milde, Cader Idris
(48), Aug., 1922, R.J.

H. scorpioides L., Fonab Moor, Pitlochry (88), Sept.,
1922, W.N.T. "var. *typicum* f. *fuscescens* Wheld. and var.
gracilescens Sanio," J.A.W.; Orkney—"Yes, my f. *fuscescens*."
J.A.W.; Wybunbury Bog., 1849, ex. coll. W.
Wilson, com. A.S.; "var. *typicum* f. *virescens* Wheldon."
J.A.W.

H. stramineum Dicks., boggy heath, Skipworth (61),
Oct., 1922, W.B. "A somewhat slender and off-type form
of *H. giganteum*, approaching *H. cordifolium* in habit, but
not at all resembling *H. stramineum*." J.A.W.

H. turgescens Schp., Lochain-a-chait, Lawers (88), July,
1913, leg. D. Haggart com. W.N.T.; also below Llyn Gafr,
Cader Idris (48),* Aug., 1922, R.J. "This is a very
interesting extension of the range of this moss. Hitherto, it
has only been recorded from Ben Lawers. Only a few stems
were detected by Mr. Jackett in a tuft of *Hyp. falcatum* Brid.
and were submitted to Mr. Dixon who confirmed his naming.
Further search in the above locality might prove it to occur
in larger quantities." D.A.J.

H. cordifolium Hedw., Stanmore Heath (21), Sept.,
1922, P.W.M.R.

H. giganteum Schp., Stanmore Marsh (21), 1922,
P.W.M.R.; also, Cader Idris (48), Aug., 1922, R.J.; and
Wybunbury Bog., Aug., 1860, W. Wilson, com. A.S.

H. sarmentosum Wahl., mountain tarn, Cader Idris (48),
Aug., 1922, W.B.; also, R.J. and Lawers (88), Aug.,
1922, W.N.T. "Yes, but much mixed with a pretty
red form of *Limprichtia revolvens* (Sw) Loeske." J.A.W.

H. cuspidatum L. Pond, Fowey (2), June, 1922, D.B.
"Yes, it is var. *submersum* Holt, of which I have not seen
a description, but possess a specimen exactly matched by

these. It must not be confused with the very different var. *fluitans* Klinggr." J.A.W.

H. Schreberi Willd., *c. fr.* near Tecwyn Ravine, Talsarnau (48), Oct., 1922, D.A.J.

Hylocomium splendens B. and S., Keswick, 1922, C. M. Cooper; also *c. fr.* hedge, Pensilva (2), Aug., 1922, D.B.; and Mickleham (17),* Sept., 1922, A.S. "Is var. *gracilius* Boul." J.A.W.

H. umbratum M. and S., Ceunant Llenyrch, Maentwrog Valley (48), April, 1922, D.A.J.; also, Flégère, near Chamonix, France, July, 1922, leg. W.E.N. and H.H.K., com. H.H.K.

H. loreum B. and S., Lodore and Barrow, N.T. "Yes, except the Barrow plant in fruit, which is *H. triquetrum* in part. I have placed the latter all in one packet." J.A.W.

H. triquetrum B. and S., *c. fr.*, Williton (5), Nov., 1922, A.W.

Non-European

Racopilum tomentosum C Muell., Guy Fawkes Rivulet, near Holway, Tasmania, Sept., 1890, leg. W. A. Weymouth, com. W.B. "This is *R. cristatum* H. f. and W. *R. tomentosum* is not an Australasian species. I prefer the spelling *Rhacopilum* (c. f. *Rhacomitrium*, etc.)." H.N.D.

Meteorium squarrosus Hook., Burmah, 1891, leg. M. Gandy, com. H.B. "This is *Pterobryopsis Hookeri* (Mitt) Card and Dixon. (*Meteorium Hookeri* Mitt. *Calyptothecium Hookeri* Broth. in Engler and Prantl). H.N.D.

Acanthocladium (Hypnum) extenuatum, Torgariro, N. Zealand, March, 1902, leg. J. Kay, com. H.B.

Thamnum alopecurum subsp. *caucasicum* Kindb. On the bark of boxwood imported into Liverpool from North Persia, Dec., 1922, comm. W.G.T., det. H.N.D.

Pleuropus euchlorum (Bruch) Broth. On the bark of boxwood imported into Liverpool from N. Persia, Dec., 1922, comm. W.G.T., det. H.N.D.

Schlotheimia Grevilleana Mitt. On the bark of boxwood imported into Liverpool from Knysna, Cape Colony, May, 1922, comm. W.G.T., det. H.N.D.

Hepatics

Riccia glauca L. var. *subinermis* (Lindb.) Warn., Buncombe Wood, near Taunton (5*), Oct., 1922, W.W.

Conocephalum conicum (L.) Dum., Great Canfield (19*), July, 1922, E.A.

Metzgeria furcata (L.) Dum., La Châtaigneraie, Vendée, France, July, 1911, J. Charrier, com. W.B.

Metzgeria pubescens (Schrank) Raddi, Nant-y-Ffrith, near Wrexham (50), Aug., 1921, D.A.J.

Pellia Neesiana (Gottsche) Limpr., Cefn Hill (36*), Sept., 1922, E.A.

Pellia Fabbroniana Raddi, Great Canfield (19*), July, 1922, E.A.; var. *lorea* Nees, above Talsarnau (48), Oct., 1920, D.A.J.

Blasia pusilla L., Morenish Burn, Loch Tay (88), Aug., 1922, W.N.T.

Petalophyllum Ralfsii (Wils.), Gottsche, Sandhills, Freshfield (59), July, 1922, W.G.T.

Fossombronia Wondraczeki (Corda) Dum., Putley (36*), Nov., 1922, C.H.B.

Fossombronia angulosa (Dicks.) Raddi, Prenteg, near Portmadoc (49), Jan., 1921, D.A.J.

Gymnomitrium concinnatum (Lighf.) Corda, Ben Ledi (87), Aug., 1860, R. Braithwaite, com. H.B.; Cader Idris (48), Aug., 1922, E.A. and D.A.J.; Cader Idris (48), Aug., 1922, F.R. "This is *Gymnomitrium obtusum* (Lindb.) Pears." H.H.K.; at 2500 metres, Mont Mort, Grand S. Bernard, Switzerland, July, 1922, P.G.M.R. "Correct, but in one of the specimens *Marsupella apiculata* Schiffn. is growing with the *Gymnomitrium*, and possibly it may be found in the others. This *Marsupella* resembles slender stems of the *Gymnomitrium*." H.H.K.

Gymnomitrium obtusum (Lindb.), Pears., Cwm Moch (48), Nov., 15, D.A.J.

Gymnomitrium crenulentum Gottsche, Cader Idris (48), Aug., 1922, E.A. and D.A.J.; Moelwyn Bach (48), Aug., 1922, D.A.J.

Gymnomitrium alpinum (Gottsche) Schiffn., Moelwyn Bach (48), Aug., 1922, D.A.J.

Marsupella Stableri Spruce, Cader Idris (48), Aug., 1922, D.A.J.

Marsupella Funckii (Web. et Mohr) Dum., Wasdale Head and Sty Head Gill (70), April, 1922, W.N.T. "This is a small *Marsupella emarginata*. *M. Funckii* has the leaves more deeply lobed." H.H.K.

Marsupella emarginata (Ehrh.) Dum. var.? Slieau Monagh (71), June, 1908, H.B. "This is *Lophozia Kunzeana*

(Hub.) Evans." H.H.K. "I agree with Mr. Knight. The transversely inserted bilobed leaves and the bifid underleaves point to *Lophozia Kunzeana*. The occurrence of this rare alpine species south of the Tweed, hitherto only recorded from Scotland, is remarkable and encourages further search in the hilly parts of England and Wales." D.A.J.

Since the above note was written, Mr. Beesley sent me an Irish specimen of *Lophozia Kunzeana*, received from Mr. M. B. Slater and named by Dr. Spruce. Messrs. Macvicar and Pearson confirmed it. **Lophozia Kunzeana*, Benbulbin, Co. Sligo, June, 1880, legit D. McArdle." "It was mixed with *Lophozia Mulleri*, c. per." D.A.J.

Marsupella emarginata (Ehrh.) Dum., Ceunant Llenyrch, Maentwrog Valley (49), Nov., 1920, D.A.J.

Marsupella Pearsoni Schiffn., Seatoller, Borrowdale (70), June, 1910, A.W.

Alicularia compressa Nees, var. *gigantea* Macv., Bow Fell (69), June, 1916, J.A.W. and A.W.

Alicularia scalaris (Schr.) Corda, var. *distans* Carr., Llanberis (49), Aug., 1919, W.G.T. "Two specimens are correct; the others are *Aplozia crenulata*." H.H.K. See Report, 1920, p. 265.

Alicularia Geoscyphus De Not., Haida, Bohemia, April, 1892, A. Schmidt., com. H.B.

Souhbya nigrella (De Not.) Spruce, Quarry near Easton, Portland (9), April, 1922, H.H.K. and W.E.N.

Aplozia crenulata (Sm.) Dum., var. *inundata* (Schiffn.) Macv., St. Cleer (2*), April, 1920, R.W.S.

Aplozia cordifolia (Hook.) Dum., Torrent Walk, Dolgelley (48), Aug., 1922, W.B.

Gymnocolea acutiloba (Kaal.) K. Müll., Rhinog Fawr (48), April, 1922, D.A.J.; Cwm Bychan (48), July, 1922, E.A. and D.A.J.; Rhinog Fach (48), Oct., 1922, D.A.J.

Lophozia decolorans (Limpr.) Steph., Terminal moraine of glacier, Argentière, Haute Savoie, France, July, 1922, W.E.N. and H.H.K. The "Revue Bryologique," 1922, p. 48, says:—"MM. Knight et Nicholson ont trouvé, à la moraine terminale du glacier d'Argentière (Haute-Savoie), une espèce nouvelle pour la France, le *Lophozia decolorans* Steph."

Lophozia turbinata (Raddi) Steph., Ravensworth Park and Gibside (66), Oct., 1922, N.T. "These are both *Cephalozia bicuspidata*." H.H.K.

Lophozia badensis (Gottsche) Schiffn., Sandhills, Freshfield (59), June, 1912, W.G.T.

Lophozia bantriensis (Hook) Steph., Ireby Fell (60), Sept., 1906, A.W.

Lophozia alpestris (Schleich.) Evans, near Pas de Marengo, Switzerland, July, 1922, P.G.M.R.

Lophozia quinquedentata (Huds.) Cogn., var. *aquatica* (Pearson MS. sub *L. Lyoni*), among moss in rocky marsh at 2470 metres, Mont Mort, Grand S. Bernard, Switzerland, July, 1922, P.G.M.R. "Upper leaves often only bifid; bracts obtusely lobate; perianth broadly oval, mouth entire, 6 folded." Pearson in litt., Oct., 1922.

Lophozia Hatcheri (Evans) Steph., Argentières, Hte. Savoie, France, July, 1922, H.H.K. and W.E.N.; wall near Keswick (70*), Sept., 1922, H.H.K.

Lophozia Floerkii (Web. et Mohr) Schiffn., Mount Carron (71), June, 1908, H.B.; Edale (57), Sept., 1922, J.P.H.

Lophozia attenuata (Mart.), Dum., Burnham Beeches (24), May, 1920, W.R.S.; near Glen Maye (71), July, 1903, H.B.

Anastrepta orcadensis (Hook.) Schiffn., Cader Idris (48), Aug., 1922, E.A.; Sty Head Gill (70), April, 1922, W.N.T.

Plagiochila asplenoides (L.), Dum., var. *minor* Lindenb., Snaefell (71), July, 1902, H.B.; var. *major* Nees, Lyndhurst (11*), June, 1922, St.J.M.; var. *major* Nees, forma *subintegerrima* Schiffn., Hergest Ridge (36*), May, 1922, E.A.

Plagiochila spinulosa (Dicks.) Dum., Woods, Fowey r. (2) Aug., 1921, R.W.S.; Tyn-y-Groes (48), Aug., 1922, E.A.; Tal-y-Llyn (48), April, 1919, W.H.P.; Torrent Walk, Dolgelley (48), Aug., 1922, W.B.; Snaefell (71), July, 1902, H.B.

Plagiochila punctata Tayl., Torrent Walk, Dolgelley (48), Aug., 1922, W.B.; Tyn-y-Groes (48), Aug., 1922, E.A.

Plagiochila tridenticulata Tayl., Tyn-y-Groes (48), Aug., 1922, E.A.

Plagiochila Stephensoniana Mitten, New Zealand, S. Chadwick, com. H.B., det. W.H.P.

Leptoscyphus Taylora (Hook.) Mitt., c. fr., Bwlch Tyddiad, Cwm Bychan (48), July, 1922, E.A. and D.A.J.; Ingleborough (64), June, 1914, W.G.T.; Red Pike, Mosedale (70), April, 1922, W.N.T.

Lophocolea cuspidata Limpr., Ravensworth, and Lambton (66), Nov., 1922, N.T.; Beetham (69), July, 1913, H.B.; Billy Banks Woods, Richmond, (65), Dec., 1922, N.T. "Yes, but one packet is mostly made up of *Plagiochila asplenoides*." D.A.J.

Lophocolea heterophylla (Schrad.) Dum., Ravensworth (66), Feb., 1921, N.T. "This plant is paroicous and belongs here. One packet only contains *Lophocolea cuspidata* Limpr." D.A.J.

Lophocolea minor Nees, Macuguaga, N. Italy, July, 1913, and Argentières, Hte. Savoie, France, July, 1922,

H.H.K. and W.E.N.

Chiloscyphus polyanthus (L.) Corda, Vallon du Foussac, Loire-Inférieure, France, March, 1916, J. Charrier, com. W.B.; var. *fragilis* (Roth) K. Müll., near Precipice Walk, Dolgelley (48), August, 1922, D.A.J.

Harpanthus Flotowianus Nees, below Tarmachan, Killin (88), Aug., 1913, D.A.J.

Harpanthus scutatus (Web. et Mohr) Spruce, Cwm Bychan, Harlech (48), May, 1922, D.A.J.

Cephalozia ambigua Massal., at 2230 metres, Combes des Mortes, Grand S. Bernard, Switzerland, July, 1922, P.G.M.R.

Cephalozia media Lindb., Tyn-y-Groes (48), Aug., 1922, W.B.; var. *pallida* (Spruce) Massal., Artro Valley (48), Dec., 1920, D.A.J.

Cephalozia serriflora Lindb., Tyn-y-Groes, near Dolgelley (48), April, 1914, D.A.J., and Aug., 1922, E.A., and D.A.J.

Cephalozia leucantha Spruce, Ceunant Llenyrch, Maentwrog Valley (48), Nov., 1920, D.A.J.

Nowellia curvifolia (Dicks.) Mitt., Ceunant Llenyrch (48), April, 1922, D.A.J.

Cephaloziella aeraria (Pears.) Macv., Tyn-y-Groes (48), Aug., 1922, E.A.

Cephaloziella Baumgartneri Schiffn., Bourneau, Vendée, France, Sept., 1912, J. Charrier, com. W.B.

Cephaloziella Starkei Nees, Savenay, Loire-Inférieure, France, July, 1918, J. Charrier, com. W.B.

Eremonoius myriocarpus (Carr.) Pears., Ben Laoigh (88), Aug., 1913, D.A.J.

Pleuroclada albescens (Hook.) Spruce, at 2500 metres, Mont Mort, Grand S. Bernard, Switzerland, July, 1922, P.G.M.R.

Adelanthus decipiens (Hook.) Mitt., Artro Valley (48), Oct., 1921, D.A.J.; Tyn-y-Groes (48), Aug., 1922, E.A.

Calypogeia arguta Nees et Mont., S. Michel-le-Avucy, Vendée, France, Sept., 1913, J. Charrier, com. W.B.

Bazzania tricenata (Wahl.) Pears., Cwm Bychan (48), July, 1922, E.A. and D.A.J.

Bazzania triangularis Pears., Tyn-y-Groes (48), Aug., 1922, E.A.

Lepidozia reptans (L.) Dum. var. *tenera* (Hübner) Nees, Torrent Walk, Dolgelley (48*), Aug., 1922, E.A.; Wyre Forest (37), Aug., 1922, F. J. Epps, com. St. J.M. "A small aquatic form but not var. *tenera*." W.H.P. and S.M.M.; Styne Head Gill (70), April, 1922, W.N.T. "I don't think this is correctly named. It is very lax, and much too large for that variety. The leaves are very distant, erecto-patent.

narrower and more deeply lobed than in *Lepidozia reptans*. I should name it *Lepidozia Pearsoni* Spruce." D.A.J.

Lepidozia Pearsoni Spruce, Torrent Walk, Dolgelley (48), Aug., 1922, E.A. and W.H.P.

Herberta Hutchinsiae (Gottsche) Evans, Torrent Walk, Dolgelley (48), Aug., 1922, W.B.; Cader Idris (48), Aug., 1922, E.A.

Mastigophora Woodsii (Hook.) Nees, Roshven (97), May, 1899, S.M.M. and W.H.P.

Trichocolea tomentella (Ehrh.) Dum., Lyndhurst (11*), June, 1922, St.J.M.; Portmadoc (49), Dec., 1920, D.A.J.; near Sedbergh (65), Dec., 1918, A.W.

Diplophyllum albicans (L.) Dum., Gibside (66), and Keswick (70), Sept., 1922, N.T.

Diplophyllum obtusifolium (Hook.), Dum., Crowborough (14), Aug., 1917, W.E.N.

Scapania compacta (Roth) Dum., La Roche-sur-Yon, Vendée, France, March, 1911, J. Charrier, com. W.B.

Scapania gracilis (Lindb.) Kaal., St. Breward (2), Sept., 1919, R.W.S.; Tyn-y-Groes (48), August, 1922, W.B.; Vendée, France, March, 1920, J. Charrier, com. W.B.; var. *minor* Pears., Tyn-y-Groes (48), Aug., 1922, E.A. and W.H.P.

Scapania dentata Dum., Lyndhurst (11*), June, 1922, St. J.M.

Scapania undulata (L.) Dum., Wolla (2), Aug., 1921, R.W.S. "This is *Scapania dentata* var. *ambigua* De Not. The postical lobe is reflexed and more or less dentate as in that variety." D.A.J.

Scapania undulata app. var. *heterophylla* Howe, Moelwyn Bach (48), Sept., 1922, D.A.J.

Scapania obliqua (Arnell) Schiffn., Lawers (88), Aug., 1922, W.N.T.

Scapania obliqua (Arnell) Schiffn., forma, Moelwyn Bach (48), April, 1922, D.A.J.

Scapania irrigua (Nees) Dum., Rainford Junction (59), June, 1913, W.C.T.

Scapania umbrosa (Schrad.) Dum., Finlarig, Killin (88), Aug., 1922, W.N.T.

Radula voluta Tayl., Nantcol Ravine, near Llanbedr (48), Oct., 1920, D.A.J.; Tyn-y-Groes (48), Aug., 1922, E.A.

Pleurozia purpurea (Lightf.) Lindb., Mangerton, South Kerry, July, 1909, W.G.T.; Rannoch Moor (88), July, 1910, J.A.W. and A.W.

Madotheca laevigata (Schrad.) Dum., Killarney, July, 1909, W.G.T.

Madotheca Thuja (Dicks.) Dum., Polperro (2*), Jan., 1923, F.R.

Madotheca platyphylla (L.) Dum., Pelynt (2), Jan., 1923, F.R.; Great Canfield (19*), July, 1922, E.A.; Blenheim (23), Aug., 1921, N.T.; Richmond (65), Dec., 1922, N.T.; Frascati, near Rome, Italy, May, 1922, N.T.

Madotheca rivularis Nees, var. *simplicior* (Zett.) K. Müll., Cefn Hill (36*), Sept., 1922, E.A.

Madotheca Porella (Dicks.) Nees, near Fingle Bridge (3), March, 1913, W.E.N.

Cololejeunea minutissima (Sm.) Schiffn., La Chataigneraie, Vendée, France, Jan., 1913, J. Charrier, com. W.B.

Microlejeunea ulicina (Tayl.), Evans, New Forest (11), May, 1922, W.G.T.; Tyn-y-Groes (48), Aug., 1922, E.A.; Forêt de Vouvant, Vendée, France, April, 1913, J. Charrier, com. W.B.

Harpalejeunea ovata (Hook.) Schiffn., Tyn-y-Groes (48), Aug., 1922, F.A. "Yes, but one packet contains *Lejeunea patens* Lindb., accompanied by *Plagiochila tridenticulata* Tayl." D.A.J.

Marchesinia Mackaii (Hook.) Gray, Portland (9*), April, 1922, H.H.K. and W.E.N.; Killarney, June, 1910, W.H.P.

Jubula Hutchinsiae (Hook.) Dum., Tyn-y-Groes (48), Aug., 1922, E.A. and D.A.J.

Frullania Tamarisci (L.) Dum., Highcliffe (11), June, 1922, St.J.M.; var. *robusta* Lindb., Cader Idris (48), Aug., 1922, E.A. and D.A.J.

Frullania microphylla (Gottsche) Pears., Kynance Cove (1), Nov., 1919, H.H.K. and W.E.N.

Frullania fragilifolia Tayl., Tyn-y-Groes (48), Aug., 1922, E.A.

Anthoceros punctatus L., Highcliffe (11*), June, 1922, St.J.M.

CORRECTION FOR SUTHERLANDSHIRE (108):—

Mr. W. E. Nicholson writes that the plant sent to the Club last year under the name of *Diplophyllum gymnostomophilum* from Glen Dubh., Inchnadamph, Sutherlandshire, proves on further examination to be *Scapania Bartlingii*, being quite different from the true *Diplophyllum gymnostomophilum* he found some years ago in Glen Beag.

Obituaries.

WILLIAM HENRY PEARSON, M.Sc., A.L.S.,

1849—1923.

Born at Pendleton, near Manchester, July 22nd, 1849, died at Manchester, April 19th, 1923. Early in life he lived at Eccles, where he made the acquaintance of Dr. Carrington. At that time he was interested in Ferns and Fern Culture and Alpine Plants. He attended a Botany class held by Dr. Carrington. This developed into an intimate friendship between the two with the result that he was influenced to take up the Hepatics as a special study.

In collaboration with the Doctor "The Carrington and Pearson Exsiccata of British Hepatics" was issued in three fascicles. He was in frequent correspondence with Dr. Spruce who gave him valuable assistance and guidance in his studies.

He became intimately connected with the older Manchester Botanists. He helped to form the Manchester Cryptogamic Society of which John Whitehead was first President, who, on his resignation, was succeeded by Dr. Carrington.

In 1902 he published his great work, the "Hepaticae of the British Isles" in two large volumes, describing and illustrating all the species and varieties then known. This work, together with the Exsiccata, gave a considerable impetus to the study of this interesting group. He also published a large number of valuable papers on the subject from time to time.

The following British species have been named after him:—*Sphenolobus Pearsoni* (Spruce) Steph.; *Lepidozia*, Spruce; *Bazzania* (Steph.) Pears; *Marsupella*, Schiffn.

His Herbarium which formed the basis on which the "Hepaticae of the British Isles" was written, was acquired by the British Museum. His Library, containing very valuable books (Foreign and British) on Hepatics was bought by the Manchester Corporation Free Library Committee and forms part of the Reference Library, Piccadilly, Manchester. Of late years he was much engaged with Foreign Hepaticae. He was corresponding member of the Linnean Society of New South Wales, the Royal Society of Tasmania, the Christiania Vedenskabs Selskabs and Vice President of the British Bryological Society as well as Referee for Foreign Hepatics.

He was a delightful man, well-known for his geniality and kindness. The writer spent a few days in his company last Easter at Beddgelert, when he attended the Annual Meeting of the Rucksack Climbing Club. He was as enthusiastic as ever, full of the reminiscences which ever charmed and endeared him to his friends. An important link with the old school of Botanists has been snapped, and our Society, and, indeed, Bryology in general have suffered a loss from which it will take some time to recover. He was buried at the Southern Cemetery, Manchester, on April 23rd. Mr. H. C. Broome, of Failsworth, who was a personal friend and to whom I am indebted for much of the information given above, represented our Society at the funeral.

WILLIAM INGHAM, B.A.,

1854—1923

Born at Manchester in the year 1854; died May 25th, 1923. He received his education at the York Training College and was a graduate of the London University. After completing his degree he accepted the post of Organizing Inspector of Church Schools in the Diocese of York, serving for many years in that capacity. He was subsequently appointed on the Staff of the York Education Office.

He was an ardent student of Bryology. He contributed many papers on the subject to the Journals. He made an exhaustive study not only of the Mosses and Hepatics of the York District, but, also, of Upper Teesdale, adding several new and interesting records. In 1906 the British Association met at York. He was deputed to write a Handbook of the Cryptogamic Flora of the District. It contained a list of the Freshwater Algae and Fungi, together with a full and excellent account of the Mosses and Hepatics. He was a former President of the York Naturalists' Society and Chairman of the Bryological Section of the Yorkshire Naturalists' Union.

In the year 1903 he accepted the Secretaryship of the Moss Exchange Club, succeeding the Rev. C. H. Waddell, M.A., B.D. In 1907 the Census Catalogue of British Mosses was published, of which he was Editor; and in 1913 the Census

Catalogue of British Hepatics followed, giving evidence of his untiring energies. He was always ready to assist students of Bryology examining and reporting on their plants. A large number of Mosses and Hepatics passed through his hands from time to time. He was very keen in the field and was well acquainted with most of the British Mosses and Hepatics in their native habitats. For some time he was in failing health and early last year he resigned the Secretaryship of the Club very much to the regret of all the members. His services were duly recognised by a well-merited testimonial and by his name being placed among the Honorary Members of the Society. He was buried at the York Cemetery on June 1st, and Mr. William Bellerby, of York, was able on behalf of our Society to be present to pay the last tribute to his memory.

NOTICES.

It has been suggested that 2nd Editions of the Moss and Hepatic Census Catalogues should be issued when the funds of the Society allow. In the meantime Mr. J. B. Duncan, 6, Summerhill Terrace, Berwick-on-Tweed, has kindly undertaken to compile the New County Records for Mosses, and Mr. A. Wilson, F.L.S. Haveria Bank, Sedbergh, Yorks., for Hepatics. All such records accompanied by *authentic* specimens should be sent direct to the above.

Herr Stephani of Leipzig, is now issuing copies of all his drawings of Hepatics, traced by his daughter Fraulien Stephani at the rate of 10/- per 100. The Students of Bryology all over the world are much indebted to him, and an opportunity is afforded of recognising his services in his old age. All orders will be gladly received by Mrs. Theo Wadsworth, Turnsteads, 10, Burlington Road, Buxton, Derbyshire.

This letter was included in BBS Report 1923 Vol 1.
It does not have a page number.

Rock House, Harlech.

December 1922.

DEAR SIR OR MADAM

As you are aware, members of Sections I. and II. of the Moss Exchange Club have been approached in order to ascertain their views respecting the amalgamation of these two Sections. The replies received show general unanimity in favour of such amalgamation.

Several members, Miss E. Armitage, Rev. C. H. Binstead and R. Jackett, Messrs. Bellerby, Bradshaw, Broome, Dixon, Jones, Marquand, Pearson, Rilstone and Watson, of both Sections met at Dolgelley last August, and at an informal meeting held at the County School various recommendations were considered and passed. The enclosed rules are based on those recommendations, which, we hope, will meet with your approval.

The following members were recommended as Officers for the next two years:—

President—Mr. H. N. DIXON, M.A., F L.S.

Vice-President—Mr. W. H. PEARSON, M.Sc., A.L.S.

Foray Secretary—Mr. H. C. BROOME.

Distributors—Mosses—Mr. F. RILSTONE.

Hepatics—Mr. A. WILSON. F.L.S., F.R.Met.S.

Treasurers—Mr. J. A. WHELDON, M.Sc.

Rev. R. JACKETT.

General Secretary—Mr. D. A. JONES, M.Sc.

Secretary—Miss ELEONORA ARMITAGE.

Unless I hear to the contrary, I shall take it for granted that you agree to the enclosed rules and list of Officers mentioned above.

A joint balance-sheet winding up the affairs of Sections I. and II. of the Original Club is enclosed.

May I add that all subscriptions should be sent direct to Mr. J. A. Wheldon, and all communications to the General Secretary.

Yours faithfully,

D. A. JONES.