

The British Bryological Society



REPORT FOR 1936.

VOL. III, PART 5.



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of the British Bryological Society
for 1936.**

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 Park, Bristol, 2. (Deceased, Oct. 6th, 1936).
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**Original members of the Moss Exchange Club.*

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STATEMENT OF*RECEIPTS.*

Balance from last Account	£102	19	1
Subscriptions—1936	£37	10	0	
„ Arrears	....	....		15	0	
„ 1937 (paid before due)	....	....	4	5	0	
Donation	....	....		15	0	
					43	5
					0	
Catalogues, etc., sold	....	....	....	....	1	2
					2	
					£147	6
					3	

BALANCE SHEET*LIABILITIES.*

Subscriptions, 1937—paid before due	....	....	£4	5	0
Distribution costs, 1936-37 (estimated)	....	....	4	10	0
Printing Report, 1936 (estimated)	....	....	20	0	0
Subscription to <i>Revue Bryologique</i>	....	....		16	0
Balance (excess of Assets over Liabilities)	....	....	86	15	3
					£116
					6
					3

Examined and found correct—J. Y. ELDER,

Barclays Bank, Berwick-on-Tweed.

14th January, 1937.

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ACCOUNT for 1936.*EXPENSES.*

Printing Report, 1935	£20	4	9
,, Circulars	1	7	0
Stationery	12	6	
Distribution Costs, 1935-36	....	....	....	....	5	1	4
Secretary's Expenses	....	....	....	....	1	14	0
Treasurer's Expenses	....	....	....	....	1	16	3
Librarian's Expenses	....	....	....	....	15	6	
Annual Excursion—Expenses	....	....	....	....	8	8	
Balance in hand, 31st December, 1936	....			....	115	6	3

£147 6 3

31st DECEMBER, 1936.*ASSETS.*

Cash in hand (General Account)	....	....	....	....	£115	6	3
Subscriptions in arrear (£4 5s.), estimated to produce	....	....	....	....	1	0	0

£116 6 3

J. B. DUNCAN, *Treasurer.*

N.B.—Subscriptions, 10/- per annum, Foreign and Colonial Members, 5/-, should be paid not later than 31st March each year.

REPORT OF SECRETARY.

The Fifteenth Annual Report of the British Bryological Society shows little change in the number of members or their keenness. It is a matter of great regret to the whole Society that Mr. Jones's illness should have caused him to resign the secretaryship, and his subsequent death is a very big loss to us all.

The work of a new Secretary would have been very arduous but for the kindness and generous help and advice of Mr. Duncan, which have made the task a comparatively light one.

The meeting at Cheltenham last year during Whitsuntide seems to have been very successful, and it is to be hoped the Irish gathering this year will be a large one.

Members are very grateful to the Distributors, Referees and Bibliographer for the time and trouble they have taken in the service of the Society. Mr. Richards and Mr. Nicholson have been very kind in taking on extra work at short notice. More specimens have been sent in for distribution than last year in all the various branches. The Distributors report favourably on the condition of the specimens of mosses and hepatics sent in, but suggest that in some cases more care might be taken in the naming of the plants. Most of the packets of sphagna were very neat and had been carefully got together but in the packets from one or two collectors the plants were badly mixed and in a poor state. A paragraph on p. vi. of Mr. Sherrin's Handbook might be read with profit.

All members are requested to read the notice in this Report about the herbarium belonging to the Society, kept at the British Museum (Nat. Hist.), and to make use of the specimens in it if they can do so.

A list of new V.C. records of Mosses and Hepatics received since publication of the Supplements to the Census Catalogues, but specimens not sent for distribution, is published in the Report and it is proposed to do this annually in future.

Any gifts of books on Mosses or Hepatics, or of specimens, will be gladly received on behalf of the Society by Mr. W. R. Sherrin.

Copies of new papers for the Bibliography should be sent to Dr. L. B. C. Trotter, and specimens of new Vice-County Records of Mosses to Mr. J. B. Duncan, of Hepatics to Mr. A. Wilson, and of Sphagna and Harpidia to Mr. W. R. Sherrin.

A. THOMPSON.

April 19th, 1937.

REPORT OF THE ANNUAL MEETING, 1936.

(Extracted from *The Journal of Botany*, January, 1937.)

This Society held its Annual Meeting at Cheltenham from May 29 to June 5, 1936, to study the varied flora of the two vice-counties of Gloucestershire, East (v.c. 33) and West (v.c. 34). The absence of the President, Dr. D. A. Jones, M.Sc., A.L.S., owing to illness, was much regretted. His place was taken by the Vice-President, Mr. J. B. Duncan. It was a small meeting, upwards of twenty members only being present.

Mr. H. H. Knight, the Local Secretary, whose knowledge of the Bryophyte flora of the area is unrivalled, planned a comprehensive series of excursions, in each of which he pointed out the most interesting plants. Some of the earlier records are now, unfortunately, being lost, owing to changes in terrain. For example, the area of the few and small *Sphagnum* bogs is becoming more restricted. Also with road changes the flora disappears. This is particularly the case with the wall-top flora of the Cotswold villages. Formerly the two mosses *Tortula pusilla* and *lamellata* were quite common in such situations, but are now never seen. However, there are large areas in the Forest of Dean woodland where the vegetation is unaltered, notably in the Buckstone woods above the River Wye.

The cold stormy weather, with north-east wind and heavy thunder-showers, rather spoiled the rambles.

On Saturday most of the day was spent on the hills at Whittington, where *Thuidium abietinum* and *Philiberti* were growing in the short turf and *Hypnum Sommerfeltii* on the oolitic walls. Then through Puckham wood with *Amblystegium confervoides* and *Seligeria pusilla* on the stones, and over the hills to Sevenhampton Marsh, where *Climacium dendroides* in fine fruit has been found. After a short halt near Notgrove Station to see *Cryphaea heteromalla* and *Zygodon conoideus* on Elders, Northleach was visited on the return journey.

Next day there was an afternoon ramble to Cleeve Hill and up to the summit (1070 feet), where the well-known golf links are situated. On the way *Cylindrothecium concinnum* was pointed out.

On Monday the drive was through Painswick to the woods above King's Stanley, where very heavy rain and tall wet undergrowth hindered work among the mosses, and consequently *Mnium serratum*, which grows in some quantity in the lower part of the wood was not found. Higher up in the wood *Bartramia Oederi* and *Lophozia Muelleri* were seen. Two interesting archæological sites were visited on Uley Downs :—the large earthwork of Uley Camp, covering the hill-top, with unusually high steep banks, and Uley Long Barrow, a perfect place of prehistoric sepulture, entered from the hill turf by a low stone doorway about $2\frac{1}{2}$ feet square. It contains five rock chambers about 6 feet high.

On Thursday a visit was made to the Forest of Dean, through Mitcheldean and Drybrook to explore Wigpool Common, a high open area with gorse and dwarf willow and some small *Sphagnum* bogs. These are rare in the Forest ; several *subsecundum* forms and a few others, as *molluscum*, are found. The hepatics seen were *Odontoschisma Sphagni*, *Alicularia Geoscyphus*, and a few sterile stems of *Cephaloziella striatula*. A marsh at Foxes Bridge showed more Sphagna, with *Hypnum stramineum*.

On Wednesday, the western side of the Forest of Dean was visited. A stop was made at Staunton for the rocks and woods about the Buckstone. Continuous rain made the woods too wet for exploration. *Hedwigia ciliata*, *Leptodontium flexifolium*, *Pterogonium gracile*, and a few other mosses were found. Some of the plants that grow here are *Andreaea Rothii*, *Cynodontium Bruntoni*, *Dicranum fuscescens*, *Bazzania trilobata*, *Cephalozia media*, etc. At Tintern the party saw *Fissidens rivularis* in the locality recently found by Mr. E. W. Jones, and the new species *Lejeunea planiuscula* growing with *Metzgeria furcata* on Old Red Sandstone rock ; also *Eurhynchium Swartzii* var. *rigidum* a new record for v.c. 35.

On Thursday a drive was taken over the Cotswolds. After visiting the wood at Hailes the drive continued up Stanway Hill and down the River Windrush to Lower Guiting, and another halt was made at Kineton Thorns. The finds here included *Bryum inclinatum* and *Reboulia hemisphaerica*, the latter a new record for v.c. 33. The journey continued through Stow-on-the-Wold, Burford, Bibury, and back through Cirencester.

On Tuesday evening the Annual Meeting took place, with election of Officers :—President and Treasurer, Mr. J. B. Duncan ; Vice-President, Miss E. Armitage ; Hon. Secretary, Mr. A. Thompson. The place chosen for next year's meeting is Bundoran in Sligo, during the summer of 1937.

ELEONORA ARMITAGE.

REFEREES.**Mosses :—****Sphagnaceae :—**

Acutifolia and Cymbifolia	....	Mr. HORSLEY.
Rigida, Squarrosa and Cuspidata		Miss LOBLEY.
Subsecunda	....	Mr. THOMPSON.
Referee-in-Chief	....	Mr. SHERRIN.

True Mosses :—

Andreaeaceæ to Grimmiaceæ	....	Mr. SAVERY.
Tortulaceæ to Orthotrichaceæ	....	Dr. WATSON.
Schistostegaceæ to Leskeaceæ (except Bryum)	....	Mr. RICHARDS.
Hypnaceæ, except Harpidia	....	Mr. J. B. DUNCAN.
Harpidia and North American Mosses	....	Mr. SHERRIN.
European Mosses and British species of Bryum	....	Mr. NICHOLSON.
Non-European (except North American Mosses) and Referee- in-Chief	....	Mr. DIXON.

Hepatics :—

British and European	....	Mr. MILSOM.
Non-European and Referee-in- Chief	....	Mr. NICHOLSON.

REPORT OF DISTRIBUTORS (Mosses).

There is an increase in the total of packets sent in this year. We have had some useful plants from our members in Europe and in North America. When these are species which occur in Britain they are of extra interest to British bryologists studying our flora for purposes of comparison with the plants we ourselves gather.

From Scotland, Mr. Young has sent some useful and historical material collected by various Scottish bryologists of the last century. Two gatherings from West Inverness, *Pseudoleskea patens* and *Brachythecium glaciale* call for mention by reason of their location.

The usual standard of quality has been maintained in the preparation of the packets contributed, but we must mention that a little more care in naming is desirable. Our new President's specimens are a model of neatness and generosity that might well be taken as a model to be emulated.

Quite a number of members, mostly those who do not contribute to the Distribution have not sent any indication of their desiderata in spite of a request in last year's Report.

A fair number of new County Records have been made during the last twelve months, mostly by the keener members. Much work still remains to be done in working out the distribution of our British bryophytes, especially in Ireland, where there are many gaps to fill and doubtless discoveries of importance to be made.

Our thanks are due to Mr. W. R. Sherrin for giving facilities once more for part of the distribution work to be carried out at the South London Botanical Institute. Mr. G. F. Horsley has kindly dealt with the preparation of the detailed report on the Sphagna, and Mr. J. H. Albrecht the lengthier task of dealing with the true mosses.

A. M. SAUNDERS.
E. C. WALLACE.

April 3rd, 1937.

REPORT OF DISTRIBUTOR (Hepatics).

The number of packets sent in for distribution this year is 1,168 contributed by 25 members. This is a substantial increase on the numbers for last year. The referees report that in general the packets have been well prepared and are of ample quantity. In some cases, however, there has been a tendency to send very mixed gatherings. It should be pointed out that unless inevitable such mixtures should not be sent; if unavoidable, the name on the packet should at least be that of the predominating species. This of course does not apply to the case of one species of hepatic growing with Sphagnum.

With reference to *Scapania Jonesii* Schiffn., Mr. W. E. Nicholson sends the following note. "I enclose a few small specimens of a *Scapania* which I have recently received from Prof. Schiffner and which he found mixed with some other plants which the late Mr. D. A. Jones sent him from South-West Ireland. The plant is allied to *S. apiculata* Spr., a rare plant of rather wide distribution and Prof. Schiffner is doubtful whether to describe it as a substantive species or as a variety of *S. apiculata*. In any case it is quite a new British species and I should be very glad to see its name associated with that of the late Mr. D. A. Jones."

C. M. BEDFORD.

Taunton,
April, 1937.

MOSSES AND HEPATICS SENT FOR DISTRIBUTION, 1936—1937.

		<i>Sphagna</i>	<i>True Hep-</i>	<i>Mosses</i>	<i>atics</i>	<i>Total</i>
Mr. G. H. Allison	....	99	44	36	179
Miss E. Armitage	....	42	107	9	158
Mr. E. B. Bartram (U.S.A.)	....	—	58	—	58
Rev. C. H. Binstead	....	—	58	—	58
Dr. A. Boros (Hungary)	....	—	433	85	518
Mr. D. B. Bradshaw	....	—	31	—	31
Miss M. S. Brown (Nova Scotia)	....	—	30	21	51
Mr. W. H. Burrell	....	—	35	—	35
Mons. J. Charrier (France)	....	40	71	43	154
Miss C. A. Cooper	....	—	23	—	23
Mr. H. N. Dixon	....	19	94	—	113
Mr. J. B. Duncan	....	—	80	49	129
Dr. J. Froehlich (Austria)	....	—	44	3	47
Prof. T. C. Frye (U.S.A.)	....	—	—	165	165
Mr. E. W. Jones	....	—	122	35	157
Mr. H. H. Knight	....	—	19	41	60
Mr. J. R. Lee	....	—	31	12	43
Miss E. M. Lobley	....	73	102	31	206
Rev. W. R. Megaw	....	—	13	—	13
Mr. F. E. Milson	....	—	44	21	65
Mr. E. A. Moxley (Ontario)	....	—	112	—	112
Mr. W. E. Nicholson	....	—	63	55	118
Mr. P. W. Richards	....	—	14	33	47
Mr. F. Rilstone	....	—	9	9	18
Miss A. M. Saunders	....	—	8	—	8
Herr A. Schumacher (Germany)	....	196	75	107	378
Mr. F. A. Sowter	....	—	27	8	35
Captain C. Stenholm (Sweden)	....	15	120	45	180
Mr. W. G. Travis	....	—	16	13	29
Dr. L. B. C. Trotter	....	—	102	24	126
Mr. A. Turner	....	3	27	14	44
Mr. E. C. Wallace	....	—	214	216	430
Dr. W. Watson	....	—	—	8	8
Mr. A. Wilson	....	—	27	—	27
Mr. W. Young	....	—	650	85	735
		487	2,903	1,168	4,558	

REPORT ON PLANTS SENT IN BY MEMBERS.

(An Asterisk (*) denotes a new Vice-Comital Record.)

SPHAGNA.

Sphagnum fimbriatum Wils., Laughton (54), Oct., 1936, G.H.A.; Goyts Clough, Buxton (57), no date, H.N.D.; Wycollar near Colne (59), Oct., 1936, A.Tu. "A form common enough in the Arctic regions but which I have never seen before from this country," W.R.S.; var. *validius* Card., f. *spectabile* (Russ.) Warnst., New Ferry (58), July, 1924, leg. J. A. Wheldon, com. W.G.T.

S. Girgensohnii Russ., Glen Ogle (88), June, 1936, G.H.A. "Near the var. *microcephalum* Warnst. but taller and with smaller branch-leaves," G.F.H.; Waldmoor, Neuenhaehnen, Broelgebiet, Rheinland, Oct., 1936, A.Sch. "Not unlike the var. *gracilescens* Grav. but more robust," G.F.H.; var. *robustum* Warnst., Killin (88), June, 1936, G.H.A. "Correct but the scarcity of pores on the upper surfaces of the branch-leaves is worth noting," G.F.H.; var. *microcephalum* Warnst., Loch Coruisk, Skye (104*), July, 1936, E.M.L. "Near this var. but hardly robust nor are the branches strongly deflexed," G.F.H.; var. *gracilescens* Grav., Glen Nevis (97*), July, 1936, E.M.L. "The branch-leaves measure up to 1.45 x 0.7 mm. but there is no place for it elsewhere," G.F.H.; var. *stachyodes* Russ., Hochmoor, noerdl. Horbach, Schwarzwald, Sept., 1935, A.Sch. "These beautiful specimens may be f. *fuscescens* Warnst. Note the male catkins with antheridia," G.F.H.

S. Russowii Warnst., Hangmoor, Neuenhaehnen, Broelgebiet, Rheinland, Oct., 1936, A.Sch.

S. fuscum (Schp.) v. Klinggr., Tromsø, Norway, July, 1936, E.A.; near var. *medium* Warnst., stem leaves larger, Wildseemoor bei Kaltenbrunn, Schwarzwald, Aug., 1932, A.Sch. "I agree but apart from the colour and the presence of a very few minute ringed pores at the extreme apex of the branch-leaves, I cannot separate this species from *S. rubellum* Wils.," G.F.H.

S. Warnstorffii Russ., Ljusnedal, Haerjedalen, Sweden July, 1935, C.S. "The minute ringed pores typical of this species will be found literally in hundreds on the lower surfaces,

of the leaves of the quinquefarious branches but only where these are not covered by other leaves. This suggests a physiological relation rather than a specific character but I am unable to guess what it is," G.F.H.

S. rubellum Wils., var. *versicolor* Warnst., Hochmoor am Tanneck, Vogesen, 1936, leg. E. Issler, com. A.Sch.

S. acutifolium Ehrh., Mitterbach, Austria, July, 1923, A.B. "This is *S. amblyphyllum* Russ., var. *parvifolium* Warnst.," G.F.H.; var. *versicolor* Warnst., Wildseemoor bei Kaltenbrunn, Schwarzwald, Aug., 1932, A.Sch. "Is it well known that these vars. are turned blue by ammonia or other alkalies, regaining a red colour when treated with acids?" G.F.H.

S. quinquefarium (Lindb.) Warnst., Killin (88), June, 1936, G.H.A. "Correct but the stem-leaves are faintly fibrillose and few of the spreading branches have distinctly 5-ranked leaves," G.F.H.; Ben Lui (98), July, 1936, G.H.A.; var. *viride* Warnst., Ramsau, Bavarian Alps, Aug., 1936, leg. Lina Mannherz, com. A.Sch. "Male plants with unripe antheridia and female plants with old capsules were found in the same packet. The species is described as polyoicous but I did not notice any autoicous plants," G.F.H.

S. plumulosum Roell., Fort William (97*), July, 1936, E.M.L. "Male and female plants in the same packet, the former with old catkins but no antheridia," G.F.H.

S. molle Sulliv., Laughton (54*), Oct., 1936, G.H.A. "This is *S. cymbifolium* Ehrh., a hemi-isophyllose form. One packet is marked "Usselby, Sept., 1936." This contains young plants of one of the *subsecunda* group, which are not sufficiently developed for a more exact determination," G.F.H.; with *Erica tetralix* etc., Hangmoor bei Neuenhaehnen, Broelgebiet, Rheinland, Oct., 1936, A.Sch. "This is the var. *Molluscooides* (C. Muell.) Warnst.," G.F.H.

S. strictum Sulliv., Glen Nevis (97*), July, 1936, E.M.L.; Hohen-Hengstenberg, Ebbegebirge, Westfalen, May, 1936, A.Sch.

S. compactum DC., Tromsø, Norway, E.A.; Gudendorf, Juetland, Sept., 1936, leg. Claussen, com. A.Sch.; var. *sub-squarrosus* Warnst., Scald Hill, Cheviot (68*), Oct., 1936, E.M.L.; Loch Coruisk, Skye (104*), July, 1936, E.M.L.; near f. *strictum* Warnst., Kircheip, Westerwald, Rheinland, Aug., 1936, A.Sch.

S. squarrosus Pers., var. *spectabile* Russ., Lambs Rigg, Hexhamshire Common (67*), Sept., 1936, E.M.L.; Scald Hill,

Cheviot (68*), Oct., 1936, E.M.L. ; var. *subsquarrosum* Russ., Usselby (54*), Sept., 1936, G.H.A. "This is the var. *spectabile* Russ.," E.M.L.

S. teres (Schp.) Ångstr., var. *imbricatum* Warnst., Glen Ogle (88), June, 1936, G.H.A. ; Loch Coruisk, Skye (104*), July, 1936, E.M.L. ; var. *subteres* Lindb., Sengelbusch, Wiehltal, Rheinland, Aug., 1936, A.Sch.

S. Lindbergii Schp., Tromsø, Norway, July, 1936, E.A.

S. obtusum Warnst., Pomáz, Hungary, July, 1923, A.B. "Five of the packets contain the var. *recurviforme* Warnst.," E.M.L.

S. Dusenii C. Jens., Eschengrundmoos bei Baerental, Schwarzwald, Sept., 1935, A.Sch.

S. amblyphyllum Russ., var. *mesophyllum* Warnst., Usselby (54), Oct., 1936, G.H.A. ; Loch Torr-a-Bheithe near Arisaig (97*), July, 1936, E.M.L.

S. pulchrum (Lindb.) Warnst., Lambs Rigg, Burntridg Moor (67*), Sept., 1936, E.M.L.

S. recurvum Pal. de Beauv., Ebbegebirge, Westfalen, Aug., 1932, A.Sch. "This is the var. *majus* Ångstr.," E.M.L. ; Fornos, Hungary, Oct., 1926, A.B. "This is *S. amblyphyllum* Russ. The larger plant is the var. *macrophyllum* Warnst., whilst the smaller is the var. *mesophyllum* Warnst.," E.M.L.

S. cuspidatum Ehrh., Roulston Scar (62), June, 1899, leg. W. Ingham, com. H.N.D. "This is the var. *submersum* Schp.," E.M.L. ; Hildener Heide, Jaberg, Rheinland, Oct., 1928, A.Sch. "This is the var. *falcatum* Russ.," E.M.L.

S. molluscum Bruch., "*S. tenellum*," Bog on Ben Odhar, Perthshire, July, 1897, C.H.B. et H.N.D.

S. Holtii Warnst., Long Downs (2), May, 1936, G.H.A. "The packets contain some of this plant but mixed with *S. obesum* Warnst.," A.Th.

S. obesum (Wils.) Warnst., Laughton (54), Oct., 1936, G.H.A. ; var. *plumosum* Warnst., Epworth (54*), Aug., 1936, G.H.A. ; Laughton (54), Oct., 1936, G.H.A. ; Stanhope Common, Weardale (66*), Aug., 1933, E.M.L. "Rather a weak form. These plumose varieties should be floated out, otherwise their characteristic is not evident," A.Th. ; var. *sanguineum* Warnst., Tulloch (96*), July, 1936, G.H.A.

S. subsecundum Nees, Sucé, Loire Infre., France, Aug., 1935, J.Ch. "This is near var. *tenellum* Warnst.," A.Th. ; near Loch Doon (75), July, 1896, H.N.D. "These appear to

be young plants of *S. auriculatum*," A.Th. ; var. *tenellum* Warnst., Killin (88), June, 1936, G.H.A. "A mistake has been made here ; the moss is *S. contortum* Schultz," A.Th. ; f. *subfalcatum* Warnst., Spielmannswies bei Wittenschwand, Schwarzwald, Sept., 1935, A.Sch. "I agree to species and var.," A.Th. ; var. *intermedium* Warnst., Killin (88), June, 1936, G.H.A. "Two packets are correct, but the third contains *S. inundatum* Warnst., as well as *S. subsecundum*," A.Th. ; Tulloch (96), July, 1936, G.H.A. "I can find no *subsecundum* in these packets, but *inundatum* and *auriculatum* are present," A.Th.

S. inundatum Russ., p.p., Warnst., Epworth (54), Aug., 1936, G.H.A. "This is *S. auriculatum* Warnst.," A.Th. ; Sucé, Loire Infre., France, Aug., 1935, J.Ch. ; var. *lancifolium* Warnst., Colt Crag near Barrasford-on-Tyne (67*), Sept., 1936, E.M.L.

S. auriculatum Schp., Glen Ogle (88), June, 1936, G.H.A. "This should have been named *S. obesum* Warnst., var. *sanguineum* Warnst.," A.Th. ; var. *ovatum* Warnst., Stanhope Common, Weardale (66*), Sept., 1935, E.M.L.

S. aquatile Warnst., Wigpool Common (34), June, 1936, E.A. ; var. *intortum* Warnst., Tulloch (96), July, 1936, G.H.A. ; Coire Leis, Ben Nevis (97*), July, 1936, E.M.L. ; f. *sanguineum* Warnst., Wigpool Common (34), June, 1936, E.A. "I agree to the species and var.," A.Th. ; var. *sanguinale* Warnst., Stanhope Common, Weardale (66*), Aug., 1933, E.M.L. ; var. *remotum* Warnst., Epworth (54), Aug., 1936, G.H.A.

S. crassicladium Warnst., Carriop, Sutherland, July, 1899, H.N.D. ; var. *magnifolium* Warnst., Long Downs (2), May, 1936, G.H.A.

S. Camusii (Card.) Warnst., Epworth (54), Aug., 1936, G.H.A. "There is some *Camusii* in these packets, but *auriculatum* makes up the greater part," A.Th.

S. contortum Schultz, Arisaig (97*), July, 1936, E.M.L. ; Sucé, Loire Infre., France, Aug., 1935, J.Ch. ; Zsida, Hungary, April, 1933, A.B.

S. platyphyllum Warnst., Zsida, Hungary, April, 1933, A.B. ; Crian-larich (88), July, 1936, G.H.A. "This is incorrectly named ; it should be *S. contortum* Schultz," A.Th.

S. ?, Glas Bheiren, Sutherland, July, 1899, H.N.D. "This curious plant I should think has occupied a habitat that was unusually dry, or different in some other particulars from the

one generally occupied by the species, and so has not developed in the normal way. It seems to be most like *S. auriculatum* Schp.," A.Th.

After long consideration we have come to the conclusion that there are insufficient characters to distinguish *S. aquatile* W., from *S. auriculatum* Schp. As the latter name is the older, examples of the two plants will in future all be named *S. auriculatum* Schp. We have also agreed that *S. hercynicum* W. is not a British plant; all plants so named have turned out to be *S. inundatum* W. None of the British sphagna named *S. rufescens* W. have proved to fit the description of that species, so that name must also go from the list at present, W.R.S. A.Th.

S. imbricatum (Hornsch.) Russ., Herfeld, Wahner Heide, Rheinland, 1930, A.Sch. "These are magnificent specimens of the var. *crisatum* Warnst.," G.F.H.; "*S. Austini*," Cwm Bychan (48), Sept., 1902, D.A.J. "This is *S. papillosum* Lindb., var. *normale* Warnst.," G.F.H.; var. *crisatum* Warnst., Loch Torr-a-Bheithe near Arisaig (97*), July, 1936, E.M.L.

S. papillosum Lindb., Hochmoor am Fliegenberg, Wahner Heide, Rheinland, July, 1927, A.Sch. "The walls are only slightly papillose towards the base of the leaf, so it is the var. *subleve* Warnst.," G.F.H.; var. *normale* Warnst., Bog, Scavaig, Skye (104*), July, 1936, E.M.L.

S. cymbifolium Ehrh., Falls of Falloch (87), July, 1897, H.N.D.; Sucé, Loire Infre., France, Aug., 1935, J.Ch.; Horbacher Hochmoor, Schwarzwald, Aug., 1935, A.Sch.; Varászló, Hungary, June, 1923, A.B.

S. medium Limpr., near Buchlyvie (86), Sept., 1936, J.R.L.; Tromsø, Norway, July, 1936, E.A.; Hochmoor am Tanneck, Vögesen, leg. E. Issler, com. A.Sch.

TRUE MOSSES.

EUROPEAN (British and Continental).

Andreaea petrophila L., St. Blasien (Black Forest), Aug., 1935, A.Sch.

A. alpina Smith, Schiehallion (88), July, 1936, J.B.D. et H.H.K. ; Ben Nevis (97), July, 1936, J.B.D. et H.H.K.

A. nivalis Hook, Ben Macdhui (92), July, 1935, E.C.W. ; Ben Nevis (97), Aug., 1936, L.B.C.T. ; "Approaching var. *fuscescens*, but not extreme enough," July, 1936, E.C.W. ; var. *fuscescens*, Aug., 1936, L.B.C.T. ; idem E.C.W.

Tetraphis pellucida Hedw., New Galloway (73), Mar., 1892, J. McAndrew, com. W.Y.

Catharinea undulata W. et M. var. *Hausknechtii* Dixon, Osszateler (Hungary), July, 1934, A.B.

C. tenella Röhl., Siegburg (Rhld.), Dec., 1934, A.Sch.

C. angustata Brid., Zagyvarona (Hungary), June, 1936, A.B.

Oligotrichum hercynicum Lam., Hafnarfjall (N. Zealand), June, 1934, E.W.C.

Polytrichum nanum Neck., Deux Sèvres (France), Feo., 1934, J.Ch.

P. urnigerum L., Crianlarich (88), July, 1936, G.H.A.

P. sexangulare Flörke, Ben Nevis (97), July, 1936, E.M.L.

P. piliferum Schreb., Barra (110*), Aug., 1935, Prof. S. W. Heslop Harrison, com. E.M.L. ; Deux Sèvres (France), Mar., 1935, J.Ch.

P. strictum Banks, Killin (88), May, 1909, W. Evans, com. W. Young ; Csorbaito (Hungary), July, 1933, A.B. "Two packets contain *P. strictum* ; the other four are *P. gracile*," G.B.S.

P. Swartzii Jens., Thursley Common (17), Mar., 1935, E.C.W. "It is not clear why Jensen is given as the author of the specific name. Swartz, 1849 is invariably cited for it, so far as I am aware.

"Reference may be made to Albrecht, Synopsis of the European Species of Pogonatum and Polytrichum (Jour. Bot., 1934, p. 75. The plant, as a subsp. of *P. commune*, is there based principally on a slight, but possibly not unimportant difference (from *P. commune* subsp. or var. *perigoniale*) in the marginal cells of the lamellæ, and the small capsule.

Vegetatively it is said there to be known by the slender habit and closely arranged leaves. Hagen, however, (Forarbejder til en Norsk Løvmosflora, XIX, p. 41) distinguishes *P. Swartzii* as having "folia remota"; while according to him (op. cit p. 53) the var. *nigrescens* (Warnst.) is characterized by having the marginal cells of the lamellæ variable in form (apparently including all possible shapes!). There is evidently considerable divergence of opinions, therefore, not only as to the value of these forms, but also as to their real characters."

"The Thursley plant is without capsules, but is probably known to belong to a colony which bears the smaller capsule of *P. Swartzii*," H.N.D.

Diphyscium foliosum Mohr, Sma' Glen (88), July, 1904, W. Smith, com. W.Y.; Dalvik (N. Iceland), July, 1934, c.fr., E.W.J.

Ditrichum flexicaule Hampe, Gullane Links (82), Aug., 1912, J. McAndrew, com. W.Y.

Swartzia inclinata Ehrh., Tents Muir (85), June, 1890, G. Forbes, com. W.Y.

Seligeria recurvata B.E., Cwm Gwyn (48), Aug., 1936, E.W.J.

Ceratodon purpureus Brid., Ulvik (Norway), July, 1936, F.A.S.

Rhabdoweisia denticulata B.E., New Galloway (73), May, 1893, J. McAndrew, com. W.Y.; Ben Nevis (97), July, 1936, E.C.W.

Cynodontium Bruntoni B.E., Long Downs (2), May, 1936, G.H.A. "This is *Ptychomitrium polyphyllum*," G.B.S.; Glencorse (83), July, 1910, J. McAndrew, com. W.Y.; Deux Sèvres (France), Mar., 1935, J.Ch.

C. polycarpum Schp., Aviemore (96), July, 1936, J.B.D.

C. strumiferum de Not., Aviemore (96), July, 1936, J.B.D.; Funnäsdalen (Sweden), July, 1935, C.St.; Imatra (Finland), July, 1936, L.B.C.T.

C. Jenneri Stirt., Aviemore (96), July, 1936, J.B.D.

C. Wahlenbergii Ren. et Card., Dalvik (N. Iceland), July, 1934, E.W.J.; Spitzbergen, July, 1936, E.A.

Dichodontium flavescens Lindb., New Galloway (73), Mar., 1897, J. McAndrew, com. W.Y.; Craigiehall (83), Oct., 1908, J. McAndrew, com. W.Y.

Dicranella heteromalla Schp. var. *interrupta* B.E., Kyle of Loch Alsh (105), July, 1936, J.B.D.

D. crispa Schp., Ross Links (68), Aug., 1936, J.B.D.

- D. varia* Schp., Spitzbergen, July, 1936, E.A.
- D. Schreberi* Schp., var. *elata* Schp., Arisaig (97*), July, 1936, E.C.W. et E.M.L.
- D. squarrosa* Schp., New Galloway (73), Sept., 1935, J. McAndrew, com. W.Y.; Härjedalen (Sweden), July, 1934, C.St.
- Blindia acuta* B.E., St. Blasien (Black Forest), Sept., 1935, A.Sch.
- Dicranoweisia cirrata* Lindb., New Galloway (73), Apr., 1889, J. McAndrew, com. W.Y.
- D. crispula* Lindb., Ben Laoigh (88), July, 1920, J.R.L.; Ben Lawers (88), July, 1923, J.R.L.; Grimsey (N. Iceland), July, 1934, E.W.J.
- Campylopus Schimperi* Milde, Glen Lochsaidh (89), July, 1909, W. Smith, com. W.Y.; Cram Alt (90), July, 1893, W. Smith, com. W.Y.
- C. Schwarzii* Schp., Glen Nevis (97), July, 1936, E.C.W. et E.M.L.; Killarney (I.2), Aug., 1936, P.W.M.R.
- C. atrovirens* de Not., Loch Coruisk, Skye (104), July, 1936, E.C.W. "A slight approach to var. *falcatus* which grows near, but there are many intermediates," E.C.W.; idem E.M.L.
- C. introflexus* Mitt., Deux Sèvres (France), Mar., 1935, J.Ch.
- C. brevipilus* B.E., Kildonan (100), July, 1908, W. Smith, com. W.Y.
- Dicranum fulvellum* Smith, Ben Nevis (97), Aug., 1936, L.B.C.T.
- D. falcatum* Hedw., Ben Nevis (97), Aug., 1936, L.B.C.T.; idem H.H.K.; Myrdal (Norway), July, 1936, F.A.S.
- D. Starkei* W. et M., Glen Nevis (97), Aug., 1936, L.B.C.T.
- D. molle* Wils., Ben Nevis (97), July, 1936, E.M.L.; idem E.C.W.
- D. undulatum* Ehrh., Vallinkoski (Finland), July, 1936, L.B.C.T.
- D. Bergeri* Bland, Wildseemoor (Black Forest), Aug., 1932, A. Sch.
- D. Bonjeani* de Not., Barra (110*), Aug., 1935, Prof. S. W. Heslop Harrison, com. E.M.L.; Newham Bog (68), July, 1936, J.B.D.; Punkaharju (Finland), July, 1936, L.B.C.T.
- D. majus* Turn., Killin (88), July, 1936, G.H.A.
- D. fuscescens* Turn., Ben Lawers (88), July, 1935, J. McAndrew, com. W.Y.

- D. Muehlenbeckii* B.E., Sukoro (Hungary), April, 1934, A.B.
- D. Scottianum* Turn., New Galloway (73), May, 1887, J. McAndrew, com. W.Y.
- D. strictum* Schl., Roslin Glen (83), Apr., 1903, J. McAndrew, com. W.Y.
- D. flagellare* Hedw., UGGLEBO (Sweden), May, 1936, C.St.
- D. montanum* Hedw., Hatzendorf (Stiria), July, 1929, A.B.
- D. asperulum* Mitt., Glen Nevis (97), July, 1936, E.C.W. et E.M.L.
- D. longifolium* Ehrh., Imatra (Finland) July, 1936, L.B.C.T.; Parad (Hungary), July, 1928, A.B.
- D. Sauteri* Schp., Gosan See (Upper Austria), Aug., 1908, W.E.N. et H.N.D.
- Fissidens bryoides* Hedw., Verteskozma (Hungary), Apr., 1935, A.B.
- F. rufulus* B.E., Bolton Abbey (64), Aug., 1934, W.H.B. "Quite correct I think. Bolton Woods are locus classicus for this. I must admit that I find it sometimes hard to separate *F. crassipes*, but the plant, and especially the cells, are too small for that in this case," H.N.D.
- F. taxifolius* L., Bröltal (Rhld.), May, 1936, A.Sch.
- Octodiceras Julianum* Brid., La Bruffière (France), Sept., 1935, J.Ch.
- Hydrogrimmia mollis* Loeske, Klafferessel (Stiria), July, 1935, J.F.
- Grimmia apocarpa* Hedw., Grimsey (N. Iceland), July, 1934, E.W.J. "This is *G. maritima*. Note the solid leaves with acute stiff points," G.B.S.; Siglufjordur (N. Iceland), June, 1934, E.W.J.; var. *rivularis* Brid., Boussay (France), Sept., 1935, J.Ch.
- G. conferta* Funck, var. *pruinosa* Braithw., Largo Law (85), Oct., 1936, J.B.D.
- G. incurva* Schwaeg., Killin (88), June, 1936, G.H.A. "This has the habit of *G. torquata* and the basal cells are characteristic of this species," G.B.S.
- G. funalis* Schp., Killin (88), May, 1909, W. Evans, com. W.Y.
- G. torquata* Hornsch., Creag Cailliach (88), Aug., 1925, D.B.B.; near Killin (88), Aug., 1872, G. E. Hunt, com. W.Y.
- G. trichophylla* Grev., near Galloway (73), Mar., 1886, J. McAndrew, com. W.Y.; Balerno (83), Mar., 1902, W. Evans, com. W.Y.

G. decipiens Lindb., Traprain Law (82), Oct., 1908, J. McAndrew, com. W.Y.; Near Perth (88), R. H. Meldrum, com. W.Y.

G. Hartmani Schp., near Killin (88), July, 1885, J. McAndrew, com. W.Y.; Gleichenberg (Stiria), Sept., 1927, A.B.; Feldberg (Black Forest), Aug., 1935, A.Sch.

G. retracta Stirton, Loch Tay (88), July, 1936, J.R.L.; Loch Maree (105*), July, 1936, J.B.D.

G. patens B.E., Traprain Law (82), J. McAndrew, com. W.Y.

G. Doniana Sm., Clubbiedean (83), Apr., 1910, J. McAndrew, com. W.Y.; *G. sessitana* de Not. (*G. Doniana* var. *sessitana* Albrecht), summit of Rittnerhorn, 7,400 ft. (Tirol), June, 1930, C.H.B. det. J.H.A. "Probably correct, but I have no description of this variety," G.B.S. "*G. sessitana* is always now subordinated to *Gr. alpestris*. But whatever the grounds there are for upholding *Gr. sessitana* either as a species or as a variety, they are almost or quite entirely based on the presence of stomata on the capsule; and there are no capsules here! Therefore, without expressing any opinion as to whether this is or is not var. *sessitana*, I do not think it is satisfactory to distribute it as such in the present condition," H.N.D.

G. commutata Huebn., Ambleside (69), June, 1935, C.H.B.; Loch Stroan (73), Aug., 1892, J. McAndrew, com. W.Y.

G. montana B.E., Fingle Bridge (3), Mar., 1913, W.E.N.; Traprain Law (82), Oct., 1908, J. McAndrew, com. W.Y.; Deux Sèvres (France), Mar., 1935, J.Ch.

G. alpestris Schleich., Dalvik (N. Iceland), July, 1934, E.W.J.

G. leucophaea Grev., Berwick Law (82), June, 1907, J. McAndrew, com. W.Y.

G. elongata Kaulf., Cwm Dyli (49), Sept., 1924, H.N.D.

G. atrata Mielich., Loch Kander (92), July, 1912, W.E.N.

G. unicolor Hook., Crianlarich (88), July, 1936, G.H.A. "I do not think this can be a *Grimmia*. The leaves are ligulate and the cells highly papillose. I should name it *Diphyscium foliosum*," G.B.S.

Rhacomitrium ellipticum B.E., New Galloway (73), July, 1890, J. McAndrew, com. W. Young.

Rh. aciculare Brid., Loch Coruisk (104), July, 1936, E.C.W.

Rh. protensum Braun, Traprain Law (82), Sept., 1908, W. Evans, com. W.Y.

Rh. heterostichum Brid. var. *alopecurum* Huebn., Schiehallion (88), July, 1936, J.B.D.

Rh. canescens Brid. var. *ericoides* B.E., New Galloway (73), July, 1898, J. McAndrew, com. W.Y.

Ptychomitrium polyphyllum Fuernr., Coolin Hills (104), Aug., 1866, Dr. Lindsay, com. W.Y.

Hedwigia albicans Lindb., Deux Sèvres, Argenton-Château (France), Mar., 1935, J.Ch.

H. imberbis Spruce, Buttermere (70), Sept., 1933, C.H.B. ; Traprain Law (82), J. McAndrew, com. W.Y. ; var. *striata* Wils., New Galloway (73), Dec., 1896, J. McAndrew, com. W.Y. "Very little of the variety present in these packets. Some plants have very short hair-points," G.B.S.

Acaulon muticum C.M., Clifton Heath (23), Dec., 1935, E.W.J. ; Szar (Hungary), Apr., 1935, A.B. ; Comit Féjer ; in argillosis ad viam ferream prope Bicske, versus Ujharok, Feb., 1936, A.B. "A puzzling plant. The form is that of *A. triquetrum* and the recurved points of the nerve very marked. On the other hand the bracts are only indistinctly keeled, though the outline of the plant is more or less *triquetrous*. The seta is quite straight, not arcuate, the spores are about 25μ , rarely if ever 30μ . It appears to have the characters of *A. muticum* and *A. triquetrum* about equally. I do not think it is nearer *A. muticum* var. *minus*. If however the seta may be arcuate I should incline to *triquetrum*," H.N.D. "It seems to be the same plant which Dr. Boros has sent in from Gyömro as *A. triquetrum*. Possibly there is some intermixture as I found the seta arcuate in well-developed plants. I should refer it to *A. triquetrum*," W.W.

A. triquetrum C.M., Gyömro (Hungary), Mar., 1935, A.B.

Phascum cuspidatum Schreb., Bicske (Hungary), Feb., 1936, A.B.

Ph. curvicolium Ehrh., Szar (Hungary), Apr., 1935, A.B.

Pottia bryoides Mitt., Reigate (17), Mar., 1934, A.M.S.

P. Heimii P.B., Kornye (Hungary), Apr., 1935, A.B.

P. truncatula Lindb., Nigg (91), Feb., 1919, W. Smith, com. W.Y.

P. crinita Wils., Nigg (91), Feb., 1919, W. Smith, com. W.Y. ; Lizard (1), Dec., 1934, W.E.N. "In the packets there is also a green plant with shortly mucronate leaves. This Mr. Nicholson believes to be *P. viridifolia* which he is inclined to think is only a form of *P. crinita*. I think the two forms in the packets belong to one and the same species. This intimate association and the general likeness except in regard to length of nerve lend support to Mr. Nicholson's inclination but my field-knowledge of the plants is too inadequate for me

to give any definite opinion. In the plant with long-pointed leaves the points are somewhat shorter than usual for *P. crinita*. If the two plants are kept specifically separate it may be considered preferable to put Mr. Nicholson's specimens under *P. viridifolia* with some plants having leaves with longer points than usual. On the other hand *P. viridifolia* is given as a subspecies of *P. crinita* in our lists," W.W.

P. Wilsoni B.E., Deux Sèvres (France), Mar., 1935, J.Ch. "Correct, Peristome ruddy; calyptra scabrous above," W.W.

P. lanceolata C.M., Beaumaris (52), Dec., 1871, G. E. Hunt, com. W.Y.; Kaposztasmegyer (Hungary), May, 1933, A.B.

P. latifolia C.M., Ben-y-Gloe (89), Feb., 1891, W. Smith, com. W.Y.

Tortula pusilla Mitt., Bicske (Hungary), Feb., 1936, A.B.

T. ambigua Ångstr., Dorking (17), Feb., 1936, E.C.W.; Beaumaris (52), Dec., 1871, G. E. Hunt, com. W.Y. See note on *T. aloides*.

T. aloides De Not., Beaumaris (52), Dec., 1871, leg. G. E. Hunt, com. W.Y. "The material comes from the same locality as the *T. ambigua* given above. The separation of the two species is usually effective but I should not like to vouch for the absolute purity of the packets," W.W.

T. latifolia (*Desmatodon latifolius* B.E.), Hafnarfjall (N. Iceland), June, 1934, E.W.J.

T. laevipila Schw., Lochgilphead (98), June, 1911, J. McAndrew, com. W.Y.

T. ruralis Ehrh., Craigend (83), Dec., 1909, J. McAndrew, com. W.Y. "No fruit," W.W.

T. princeps de Not., Inchnadamph (108), July, 1921, W.E.N.; Boussay (France), Sept., 1935, J.Ch.

T. papillosa Wils., Admington (38), Oct., 1935, E.W.J.; Craibstone Mill (92), Oct., 1913, W. Smith, com. W.Y.

Barbula gigantea Funck (*Geheebia cataractarum* Schp.), Rosenlauri (Switz.), June, 1936, D.B.B.

Barbula lurida Lindb., S. Queensferry (84), April, 1910, J. McAndrew, com. W.Y.

B. rubella Lindb., New Galloway (73), July, 1896, J. McAndrew, com. W.Y.; Közepadacs (Hungary), June, 1934, A.B.

B. tophacea Mitt., near Edinburgh (83), Nov., 1910, leg. J. McAndrew, com. W.Y. "Not the usual blunt-leaved plant but the 'var. *acutifolia* Schp.," W.W.; f. *thermarum*

Boros, Budapest (Hungary), Mar., 1933, A.B. "A fine form of this species but I cannot see anything to distinguish it from *f. elata* Boulay," W.E.N.

B. fallax Hedw., New Galloway (73), Nov., 1886, J. McAndrew, com. W.Y.; Pentland Hills (83), Apr., 1902, W. Evans, com. W.Y. "The material is old and the peristome teeth are mostly broken off, but the plant is *B. spadicea*, less robust than usual. The presence of diatoms indicates its moist habitat," W.W.; var. *brevifolia* Schultz, Gilmerton (83), May, 1910, J. McAndrew, com. W.Y.

B. recurvifolia Schp., Pitlochry (89), June, 1914, leg. J. McAndrew, com. W.Y. "This is one of the intermediate forms between *B. fallax* and its subspecies *recurvifolia*. The leaves are somewhat trifarious but are not so strongly recurved as in *recurvifolia* and the cells are larger and not so highly papillose. In *B. fallax* I usually find larger cells than in *B. recurvifolia* and I should prefer to place this under the former," W.W.

B. spadicea Mitt., New Galloway (73), June, 1888, leg. J. McAndrew, com. W.Y. "The basal areolation is that of *B. rubella* and the leaves are distinctly toothed," W.W.

B. Nicholsoni Culm., Senny Bridge (42), July, 1926, W.E.N.; Townhope (36), Sept., 1936, C.H.B.

B. vinealis Brid., Arthington Bank (64), Jan., 1935, W.H.B.; near Edinburgh (83), Dec., 1910, J. McAndrew, com. W.Y.

B. sinuosa Braithw., Bishop's Cleeve (33), Sept., 1934, F.E.M.

B. Hornschuchiana Schultz, near S. Queensferry (84), Oct., 1911, J. McAndrew, com. W. Young.

B. revoluta Brid., Hambledon (17), Apr., 1936, E.C.W.; Balerno (83), May, 1911, J. McAndrew, com. W.Y. "Some may be present but apparently the main fruiting portion is *B. convoluta*," W.W.

B. convoluta Hedw., Skarvik (Sweden), June, 1932, C.St.

Leptodontium gemmascens (Mitt.) Braithw., on wooden roof Romsey (11*), Oct., 1917, W.E.N. "The habitat is worthy of note. It usually occurs on straw thatch in Somerset and when *L. flexifolium* is also present is on more decaying portions than the latter (Cf. Handbook, p. 221).

Weisia crispa Mitt (female) × *W. crispata* Lindb. (male), Downs near Lewes (14), Apr., 1904, W.E.N. "Interesting because of the intimate association of a *Weisia* with a stalked capsule and one with the capsule sessile," W.W.

W. crispata C.M., Blackford Hill (83), Jan., 1911, leg. J. McAndrew, com. W.Y. "The three packets may be this but they are without capsules," W.W.

W. viridula (L.) Hedw., Argenton-Chateau, (France), Mar., 1935, J.C. "A peculiar spiny appearance is given to some of the leaves owing to the presence of the alga *Tolypothrix*," W.W.

W. reflexa (Brid.) Schp., quarry, Nuneaton (38), June, 1935, C.A.C.

W. rupestris C.M., New Galloway (73), May, 1895, J. McAndrew, com. W.Y.; Pentland Hills (83), Apr., 1897, W. Evans, com. W.Y.

W. curvirostris C.M., Garrigill (70*), May, 1936, E.C.W. et E.M.L.; Largo Links (85), Sept., 1909, J. McAndrew, com. W.Y.; Dalvik (N. Iceland), July, 1934, E.W.J.

W. verticillata Brid., Downham (59), Aug., 1936, A.T.; Sandsend (62), July, 1934, W.E.N.; Cramond (83), Jan., 1905, J. McAndrew, com. W.Y.

Trichostomum crispulum Bruch, Wareham (9), June, 1928, E.C.W. "A plant of peculiar habitat—wet clayey bank on heath. Very lax growth," E.C.W. "I should suggest that limestone was present in some form or other. At Lakenheath calcicolous mosses are present near the road owing to the use of limestone for mending the road," W.W.; Inverkip (76), Jan., 1936, J.R.L.; Gullane Links (82), Oct., 1911, J. McAndrew, com. W.Y. "var. *elatum*, though not quite so robust as it often is," W.W.; var. *viridulum* Braithw., Melmerby (70), May, 1936, E.M.L. et E.C.W. "This is rather peculiar but Mr. Dixon thinks it correctly named and almost identical with the specimen distributed by Miss Lobley from Hartside (70)," W.W. "From almost the same locality," E.C.W.; Pinhay Cliffs (3), Nov., 1925, W.E.N.

T. mutabile Bruch, Rowardennan (86), May, 1904, J. McAndrew, com. W.Y.

T. tenuirostre Lindb., New Galloway (73), Apr., 1901, J. McAndrew, com. W.Y.; Glen Nevis (97), July, 1936, E.C.W.

T. flavovirens Bruch., Gullane Links (82), Oct., 1908, J. McAndrew, com. W.Y.

T. inclinatum Dixon, Kozepadacs (Hungary), June, 1934, A.B.

Pleurochaete squarrosa Lindb., Deux Sèvres (France), Mar., 1935, J.Ch.; Wernerseck (Rhld.), Apr., 1925, A. Sch.; Kecskemet (Hungary), June, 1934, A.B.

Cinclidotus Brebissoni Husnot, Deux Sèvres (France), May, 1935, J.Ch.

C. fontinaloides P.B., New Galloway (73), Jan., 1897, J. McAndrew, com. W.Y.; Craighall (83), Oct., 1908, J. McAndrew, com. W.Y.; Gonyu (Hungary), Aug., 1933, A.B.

Encalypta ciliata Hoffm., Ben Lawers (88), July, 1885, J. McAndrew, com. W.Y.

E. rhabdocarpa Schw., Gullane Links (82), May, 1908, J. McAndrew, com. W.Y.

Anoetangium compactum Schw., Ben Laoigh (88), July, 1893, W. Smith, com. W.Y.

Zygodon lapponicus B.E., Glen Nevis (97*), July, 1936, E.C.W. et E.M.L.; Ben Lawers (88), July, 1885, J. McAndrew, com. W.Y.; Dalvik (N. Iceland), July, 1934, E.W.J.; Hredavath (W. Iceland), Aug., 1934, E.W.J. "The plant is sterile and there was evidently some difficulty in identifying it as it was originally labelled *Weisia rupestris*. By a process of elimination the latter as well as *W. curvirostris* and *Anoetangium compactum* can be rejected. It can only be a small form of *Zygodon Mougeotii* with margin not so distinctly revolute as usual or *Z. lapponicus* with cells not so highly papillose as usual and with basal cells rather thicker-walled," W.W. "I think correct as *Z. lapponicus*, a depauperate form with basal cells reduced," H.N.D.

Z. Mougeotii B.E., Muckart (87), May, 1902, W. Evans, com. W.Y.

Z. concideus H. et T., Lewes (14), Apr., 1921, W.E.N.; New Galloway (73) July, 1884, J. McAndrew, com. W.Y. "Peristome teeth mostly lost, but gemmæ have hyaline septa," W.W.

Ulota Ludwigii Brid., Finlarig Woods (88), July, 1885, J. McAndrew, com. W.Y.

U. Drummondii Brid., New Galloway (73), Oct., 1892, leg. J. McAndrew, com. W.Y. "At least one of the three packets contains some *U. Bruchii*," W.W.

U. Bruchii Hornsch., Colintrave (98), July, 1866, G. E. Hunt, com. W.Y.

U. crispa Brid., New Galloway (73), Oct., 1892, J. McAndrew, com. W.Y.

U. curvifolia Brid., Funnasdalen (Sweden), July, 1934, C.S.

U. vittata Mitt., Killarney (I.1), June, 1865, G. E. Hunt, com. W.Y.

U. Hutchinsiae Hamm., New Galloway (73), Aug., 1890, J. McAndrew, com. W.Y.

Orthotrichum rupestre Schl., Lochgilphead (98), June, 1911, J. McAndrew, com. W.Y.; Glencorse Resv. (83), April, 1905, J. McAndrew, com. W.Y.; var. *Franzonianum* Kent, Balquidder (87), June, 1936, G.H.A. "I am inclined to consider that some *Franzonianum* is present in the packets though the striæ do not seem to be more distinctly marked on the rather smaller capsule. The habitat, areolation of the leaves and other characters agree fairly well. However as it is a new v.c. record and I have no specimen of the variety to compare it with I will get Mr. Dixon's opinion," W.W. "I think scarcely the var. Habit not quite right and capsule not plicate enough. Moreover the quantity is very small, it is mixed with another species (? *O. affine*) and in one of the three packets it is nearly all that," H.N.D.

O. anomalum Hedw., Blackford Hill (83), Mar., 1910, J. McAndrew, com. W.Y.; var. *saxatile* Milde, Lochgilphead (98), June, 1911, J. McAndrew, com. W.Y.

O. cupulatum Hoffm., Pitlochry (89), June, 1914, leg. J. McAndrew, com. W.Y. "The capsule is sufficiently exposed for var. *nudum* but the calyptra has some hairs and the peristome teeth and lamellæ are scarcely marked enough," W.W.

O. leiocarpum B.E., Firnbach (Austria), May, 1936, J.F.

O. speciosum Nees, Aviemore (96), July, 1920, W.E.N.

O. affine Schrad., Pitlochry (89), June, 1914, J. McAndrew, com. W.Y.; var. *rivale* Wils., New Galloway (73), June, 1897, J. McAndrew, com. W.Y.

O. rivulare Turn., New Galloway (73), May, 1897, J. McAndrew, com. W.Y.; Huntly (93), J. McAndrew, com. W.Y.

O. stramineum Hornsch., Lochgilphead (98), June, 1911, leg. J. McAndrew, com. W.Y. "Three packets of mixed material with no habitat given. In four capsules examined two had superficial stomata and two had immersed. The plant with superficial stomata and with peristome teeth reflexed seems to be *affine* whilst that with the teeth erect and with stomata immersed is probably *cupulatum*," W.W.

O. pulchellum Sm., New Galloway (73), May, 1879, J. McAndrew, com. W.Y.

O. diaphanum Schrad., New Galloway (73), Jan., 1896, J. McAndrew, com. W.Y.; Csakvar (Hungary), Mar., 1936, A.B.

Oedipodium Griffithianum Schw., New Galloway (73), July, 1884, J. McAndrew, com. W.Y.

Splachnum ampullaceum L., Aberfoyle (87), June, 1905, W. Evans, com. W.Y.; Fort William (97), July, 1936, E.C.W. et E.M.L.

Sp. sphaericum L., Killin (88), July, 1885, J. McAndrew, com. W.Y.

Sp. vasculosum L. Spitzbergen July, 1936, E.A.

Tetraplodon mnioides B.E., New Galloway (73), July, 1890, J. McAndrew, com. W.Y. "One packet is mostly *Splachnum sphaericum*," P.W.M.R.; Ulvik (Norway), July, 1936, F.A.S.

T. urceolatus B.E., Salzburg (Austria), Aug., 1912, J.F.

T. Wormskjoldii Lindb., Spitzbergen, July, 1936, E.A.

Tayloria tenuis Schp., Funnasdalen (Sweden), July, 1935, C.S.

Discelium nudum Brid., Colne (59), Oct., 1936, A.T. "Plenty of soil. Gathered before capsules were ripe," W.W.

Physcomitrium pyriforme Brid., New Galloway (73), June, 1895, J. McAndrew, com. W.Y.; Vargesztes (Hungary), Apr., 1935, A.B.

Funaria fascicularis Schp., Vertessomlo (Hungary), Apr., 1935, A.B.

F. calcarea Wahl., Vertessomlo (Hungary), Apr., 1935, A.B.

F. hygrometrica Sibth., Diszno-hegy (Hungary), May, 1934, A.B.

Amblyodon dealbatus P.B., Gullane Links (82), July, 1909, J. McAndrew, com. W.Y.; Oroszlany (Hungary), May, 1936, A.B.

Meesia trichodes Spr., Ben Lawers (88), July, 1885, J. McAndrew, com. W.Y. "Many of the leaves are acute. Is this var. *alpina*? I have no authentic material of this variety," P.W.M.R. "Might I think be referred to the variety, but the difference from the type is very slight," H.N.D.; Dalvik (N. Iceland), July, 1934, E.W.J.

M. triquetra Ångstr., Funnasdalen (Sweden), Aug., 1935, C.S.

Aulacomnium turgidum Schwaeg., Spitzbergen, July, 1936, E.A.

A. palustre Schw., "gemmiferous form," Thornton (85), Aug., 1906, W. Evans, com. W.Y.

Timmia bavarica Hessel., Szilvasvarad (Hungary), July, 1934, A.B.

Catascopium nigritum Brid., Gullane Links (82), July, 1913, J. McAndrew, com. W.Y.

Conostomum boreale Swartz, Myrdal (Norway), June, 1936, F.A.S.

Bartramia Oederi Swartz, Garrigill (70), May, 1936, E.C.W. et E.M.L. ; Ben Lawers (88), July, 1885, J. McAndrew, com. W.Y. ; Uppony (Hungary), July, 1934, A.B.

B. ithyphylla Brid., New Galloway (73), Aug., 1885, J. McAndrew, com. W.Y.

B. pomiformis Hedw., Aberfoyle (87), June, 1913, J. McAndrew, com. W.Y.

B. Halleriana Hedw., Schwarz Alp (Switz.), June, 1936, D.B.B. ; Parad (Hungary), June, 1931, A.B.

Philonotis fontana Brid., forma *laxifolia* Moenk., Easedale (69), June, 1934, C.H.B. "I do not know Moenkemeyer's form, but this does not agree well with his figure. I should have said 'forma' merely," H.N.D.

P. fontana Brid., var. *tomentella* Mot., Ulvik (Norway), July, 1936, F.A.S. "Perigonial bracts acute with not excurrent, ill-defined nerve ; leaves deeply plicate. This would come under var. *tomentella* as defined in the Handbook, but does not agree with Moenkemeyer's description of *P. tomentella*," P.W.M.R. "No ; *P. fontana* simply. Bracts not acute enough for var. *tomentella* ; leaves too wide," H.N.D.

P. calcarea Schp., Boulsworth (59), Oct., 1936, A.T. "No doubt correct, but I do not think *Philonotis* species without male flowers should be sent for distribution," P.W.M.R. ; Luffness Marshes (82), July, 1898, W. Evans, com. W.Y. ; Oroszlany (Hungary), May, 1936, A.B.

P. Marchica Brid., Eger (Hungary), Aug., 1929, A.B.

P. caespitosa Wils., Matrafured (Hungary), Aug., 1931, A.B. "I suppose correctly named, but the margins of the leaves are distinctly revolute," P.W.M.R.

Orthodontium gracile Schwaeg., var. *heterocarpum* Watson, Worsthorne Moor (59*), July, 1936, W.H.B. ; Skipwith Common (61), June, 1935, W.H.B. ; Widdup (63), Sept., 1934, A.T.

Leptobryum pyriforme Wils., near Edinburgh (83), May, 1905, J. McAndrew, com. W.Y. ; Dalvik (N. Iceland), June, 1934, E.W.J.

Webera cruda Schwaeg., Alston (70), May, 1936, E.C.W.

W. annotina Schwaeg., Perranwell (2), May, 1936, G.H.A.

W. proligera Bryhn., Clifton Hampden (23), Nov., 1935, E.W.J.

W. Ludwigi Schp., Ben Macdhui (92), July, 1935, E.C.W. ; Aonach Beag (97), July, 1936, E.C.W.

W. albicans Schp., var. *glacialis* Schp., Aonach Beag (97), July, 1936, E.C.W.

Bryum pallens Sw., Carlops (78), Aug., 1904, W. Evans, com. W.Y.

B. fallax Milde, Ben Lawers (88), July, 1936, J.R.L.

B. caespitosum L., var. *microcarpum* Warnst., Fulopzallas (Hungary), June, 1934, A.B.

B. pendulum Schp., var. *rappinense* Podp., Alsodabas (Hungary), May, 1934, A.B.

B. inclinatum Bland., Spitzbergen, July, 1936, E.A.

B. alpinum Huds., Okany (Hungary), Mar., 1936, A.B. ; "I make this plant a very well marked form of *B. alpinum* Huds. var. *viride* Husn., and Mr. Dixon agrees with me in this," W.E.N. ; var. *viride* Husn., Bwlch-y-groes (48), Aug., 1936, E.W.J.

B. obtusifolium Lindb., Spitzbergen, July, 1936, E.A.

B. pseudo-triquetrum Schwaeg., Oroszlany (Hungary), May, 1936, A.B.

B. agenteum L. var. *lanatum* B.E., Alston (70*), May, 1936, E.C.W. et E.M.L.

Mnium Seligeri Jur., Grasmere (69), June, 1934, C.H.B., and *Mn. rugicum* Laur., Rydal (69), June, 1934, C.H.B. "Yes, these two gatherings appear to be *M. Seligeri* (Jur. MS.) Limpr. and *M. rugicum* Laur. emend. Tuomik. R. Tuomikoski (Ueber die Laubmoosarten *Mnium affine*, *Mnium rugicum* und *Mnium Seligeri*. Ann. Bot. Soc. Zool.-Bot. Fenn. Vanamo, 6, 1936) has recently revised this group of species and shown convincingly that *M. rugicum* (= *M. affine* Bland v. *rugicum* B. & S.) and *M. Seligeri* (= *M. affine* Bland. v. *elatum* B. & S. pro parte) are good species, readily separable from *M. affine*. The three species may be distinguished as follows :—

- 1.—Sterile shoots usually curved and decumbent. Decurrent base of leaves very narrow but reaching the leaf below. Transverse section of stem distinctly angled—*M. affine*.
- 2.—Sterile shoots usually upright. Decurrent base of leaves never reaching more than half way to the leaf below. Transverse section of stem almost round—*M. rugicum*.
- 3.—Sterile shoots usually upright. Decurrent base of leaves wide, often reaching the leaf below. Transverse section of stem distinctly angled—*M. Seligeri*."

P.W.R.

Mn. cuspidatum Hedw., Omassa (Hungary) June, 1932, A.B.

Mn. undulatum L., Bolton Woods (64), Mar., 1935, F.E.M.

Mn. Blyttii B.E., Finse et Kongsvoll (Norway), Aug., 1932, J.B.D.

Mn. orthorrhynchum Brid., Funnasdalen (Sweden), July, 1935, C.S.

Mn. stellare Reich, Whitepark Bay (I.39), Aug., 1936, W.E.N.; Seatoller (70), Aug., 1933, C.A.C.; Pecsbudafa (Hungary), July, 1932, A.B.

Mn. punctatum L., Fauldhouse Moor (83), May, 1914, W. Evans, com. W.Y.

Mn. subglobosum B.E., Abingdon (22*), June, 1936, E.W.J. "Yes, an interesting new vice-county record," P.W.M.R.; Auchterhouse Hill (90), Mar., 1893, C. Forbes, com. W.Y.

Cinclidium stygium Swartz, Sunbiggin Tarn (69), June, 1936, A.W.; Dalvik (N. Iceland), June, 1934, E.W.J.

Fontinalis antipyretica L., var. *gracilis* Schp., Ben Nevis (97) July, 1936, E.C.W. "The limits of var. *gracilis* are purely a matter of opinion, but I do not think this is extreme enough for the variety," P.W.M.R.; Glendue (67*), May, 1936, E.C.W. et E.M.L.

F. squamosa L., Glendue (67*), May, 1936, E.C.W. et E.M.L. "No, this is *F. antipyretica* var. *gracilis*. The leaves are sharply keeled, though the lower leaves are split and appear unkeeled," P.W.M.R.

F. Camusi Card., Loire Inf. (France), Sept., 1935, J.Ch.

Cryphaea heteromalla Mohr, Notgrove (33), May, 1936, E.A.; var. *aquatilis* C.M. (*C. Lamyana* Lindb.), Boussay (France), Sept., 1935, J.Ch.

Neckera crispa Hedw., Pentland Hills (83), April, 1897, W. Evans, com. W.Y.; var. *falcata* Boul., Cleeve Hill (33), May, 1936, E.A.

N. Besseri Jur., Lillafured (Hungary), Nov., 1936, A.B.

Leucodon sciuroides Schw., Craig an Lochan (88), May, 1909, W. Evans, com. W.Y. "This almost comes under var. *Morensis* B.E.," P.W.M.R.

Pterogonium gracile Swartz, Artro (48), Aug., 1931, D.B.B.; Llanbedr (48), Sept., 1935, E.W.J.; Aberdour (85), Oct., 1903, J. McAndrew, com. W.Y.; Loch Tay (88), July, 1936, J.R.L.; Ardgour (97), July, 1936, E.C.W.; Deux Sèvres (France), Mar., 1935, J.Ch.

Anacamptodon splachnoides Brid., Csakvar (Hungary), June, 1936, A.B.

Helicodontium pulvinatum Lindb., Letton (36), Aug., 1936, C.H.B.

Antitrichia curtispindula Brid., Pitlochry (89), June, 1914, J. McAndrew, com. W.Y.; Thingvellir (Iceland), July, 1936, E.A.

Porotrichum alopecurum Mitt., Ullswater (70), May, 1936, E.C.W.

Myurella julacea B.E., Ben Lawers (88), July, 1885, J. McAndrew, com. W.Y.; Csakbereny (Hungary), Apr., 1936, A.B.

Leskea polycarpa Ehrh., Glencorse Resv. (83), Oct., 1905, J. McAndrew, com. W.Y.

Anomodon attenuatus Huebn., Varpalota (Hungary), May, 1931, A.B.

A. rostratus Schp., Csakbereny (Hungary), April, 1936, A.B.

A. viticulosus H. et T., New Galloway (73), Sept., 1886, J. McAndrew, com. W.Y.

Leptodon Smithii Mohr, Osmington (9), Sept., 1930, F.E.M.

Pterigynandrum filiforme Hedw., St. Fillans (88), Sept., 1912, J. McAndrew, com. W.Y.; Craig-an-Lochan (88), May, 1929, W. Evans, com. W.Y.; Dalvik (N. Iceland), July, 1934, E.W.J.; Thingvellir (Iceland), July, 1936, E.A.; var. *decipiens* Limpr., St. Blasien (Black Forest), Aug., 1935, A.Sch. "This is not var. *decipiens* and differs little from the normal form. The variety is a much larger plant with more markedly secund leaves," P.W.M.R.; Kärnten, Iselsberg (Austria), May, 1936, J.F.

Heterocladium heteropterum B.E., New Galloway (73), Sept., 1888, J. McAndrew, com. W.Y.; Traprain Law (82), Sept., 1908, J. McAndrew, com. W.Y.

Pseudoleskea atrovirens B.E., Ben Lawers (88), July, 1885, J. McAndrew, com. W.Y.

P. patens Limpr., Ben Nevis (97*), July, 1936, E.C.W. "Yes, excellent," H.N.D.; Hafnarfjall (N. Iceland), June, 1934, E.W.J.

P. catenulata B.E., Cross Fell (70), May, 1936, E.C.W. et E.M.L.; Cirque de Gavarnie (Hautes Pyrénées), Aug., 1902, W.E.N. et H.N.D.

P. striata Dixon, Voralpengebiet (Austria), Sept., 1935, J.F.

P. Breidleri Kindb., Grimsey (N. Iceland), July, 1934, E.W.J. "This plant has a variety of synonyms and, according to some was described by Kindberg under more than one

name. It is probably best known as *Ptychodium oligocladum* Limpr.," W.E.N.

Claopodium Whippleanum Ren. et Card., Monchique (Portugal), May, 1911, W.E.N. et H.N.D.

Thuidium abietinum B.E., Whittington (33), May, 1936, E.A. "Not quite typical; some approach to *T. hystricosum*," P.W.M.R.; Hartlip (15), Nov., 1903, J. Marten, com. W.Y. "I should call this intermediate between *T. abietinum* and *T. hystricosum*, and perhaps nearer the latter," P.W.M.R. "Showing approach to *T. hystricosum*; on the whole I think nearer to *T. abietinum*," H.N.D.; Hyères (France), 1928, C.A.C.; Csepel (Hungary), Feb., 1919, A.B.

T. hystricosum Mitt., Shipton Bellinger (12), Aug., 1936, E.C.W.

T. delicatulum Mitt., New Galloway (73), Feb., 1898, J. McAndrew, com. W.Y.

T. recognitum Lindb., Vernet les Bains (S. France), May, 1931, C.H.B.

T. Philiberti Limpr., Killin (88), June, 1936, G.H.A. "One stem of *T. tamariscinum*; the rest is *Hylocomium splendens*." J.B.D.

Climacium dendroides W. et M., Harlech (48), Aug., 1931, A.W.

Cylindrothecium concinnum Schp., Dunbarnie Links (85*), Oct., 1936, J.B.D.; Ben Lawers (88), July, 1885, J. McAndrew, com. W.Y.; Deux-Sèvres (France), May, 1935, J.Ch.

Myurium Hebridarum Schp., North Uist (110), July, 1885, Dr. Stirton, com. W.Y.; Loch Coruisk (104), July, 1936, E.C.W. et E.M.L.

Orthothecium rufescens B.E., Penyghent (64), Sept., 1935, C.A.C. et F.E.M.; Ben Lawers (88), Aug., 1903, J. F. Jeffrey, com. W.Y.

O. chryseum B.E., Koppajokk (Swedish Lapland), Aug., 1907, H.N.D.; Leitertal (Carinthia), Aug., 1904, H.N.D.

O. intricatum B.E., Funnasdalen (Sweden), July, 1935, C.S.; Szepesvaralja (Hungary), July, 1933, A.B.

Camptothecium nitens Schp., Kagerod (Sweden), Aug., 1934, C.S.; Oroszlany (Hungary), May, 1936, A.B.; Wybunbury Moss (58), Mar., 1935, F.E.M.

C. sericeum Kindb., Thingvellir (Iceland), July, 1936, E.A.

C. Philippeanum Kindb., Felsogalla (Hungary), Apr., 1931, A.B.

C. lutescens B.E., Perranporth (1), Sept., 1936, D.B.B. ; Bredhurst (15), June, 1900, J. Marten, com. W.Y.

Brachythecium plicatum B.E., Ben Lawers (88), July, 1885, J. McAndrew, com. W.Y.

B. glareosum B.E., Netley Heath (17), Mar., 1936, E.C.W. ; Port Seton (82), Mar., 1908, J. McAndrew, com. W.Y.

B. albicans B.E., Gullane Links (82), July, 1912, J. McAndrew, com. W.Y. ; Vendée (France), Mar., 1934, J.Ch.

B. salebrosum B.E., Fownhope (36), Dec., 1936, C.H.B.

B. Mildeanum Schp., Vendée (France), Apr., 1934, J.Ch. "This plant is *B. salebrosum* var. *palustre* Schp.," W.E.N.

B. rivulare B.E., New Galloway (73), July, 1890, J. McAndrew, com. W.Y. ; Loire Inf. (France), Sept., 1935, J.Ch.

B. glaciale B.E., Aonach Beag (97*), July, 1936, E.C.W. ; Dalvik (Iceland), July, 1934, E.W.J. ; Sommerwandferner (Tirol), July, 1935, L.B.C.T.

B. plumosum B.E., Dovedale (69), May, 1936, E.C.W. ; Lochgilphead (98), June, 1911, J. McAndrew, com. W.Y.

B. caespitosum Dixon, New Galloway (73), May, 1897, J. McAndrew, com. W.Y. ; Deux-Sèvres (France), Mar., 1935, J.Ch.

B. illecebrum de Not., Sherkin Island (I.3), Apr., 1934, E.W.J. "Correct, but one packet contained *Eurh. myurum*," J.B.D. ; Vendée (France), Mar., 1934, J.Ch.

B. purum Dixon, Bredhurst (15), 1901, J. Marten, com. W.Y.

Hyocomium flagellare Dicks., Hohes Venn (Rhld.), June, 1934, A.Sch.

Eurhynchium piliferum B.E., New Galloway (73), July, 1890, J. McAndrew, com. W.Y. ; Ulvik (Norway), July, 1936, F.A.S. "Clearly not this. It is *Brachythecium albicans*," J.B.D.

E. crassinervium B.E., New Galloway (73), July, 1890, J. McAndrew, com. W.Y. ; Lochgilphead (98), June, 1911, J. McAndrew, com. W.Y. ; Vendée (France), Sept., 1929, J.Ch. ; Deux-Sèvres (France), Nov., 1935, J.Ch.

E. speciosum Schp., Oaksey (7), Nov., 1936, H.H.K. ; Eger (Hungary), Aug., 1929, A.B.

E. praelongum Wilson var. *Stokesii* Brid., Roy Bridge (97*), July, 1936, E.M.L.

E. Swartzii Hobk., New Galloway (73), Apr., 1897, J. McAndrew, com. W.Y. ; Ocsa (Hungary), June, 1931, A.B. "Not our normal form with spreading habit and sub-

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complanate leaves. It should, I suppose, be called var. *robustum* Limpr. (var. *rigidum* Boul.)," J.B.D.

E. abbreviatum Schp., West Horsley (17), Mar., 1936, E.C.W.; Dry Hill (17), Apr., 1936, E.C.W.; Glen Ogle (88), June, 1936, G.H.A. "This is a form of *Hyocomium flagellare*," J.B.D.

E. pumilum Schp., Lambourne (1), Apr., 1936, F.R. "Very earthy and much mixed with other plants," J.B.D.

E. curvisetum Husn., Makarska (Dalmatia), July, 1936, J.F.

E. tenellum Milde, Csakvar (Hungary), May, 1929, A.B.

E. myosuroides Schp., var. *brachythecioides* Dixon, Ben Nevis (97*), July, 1936, E.C.W.

E. myurum Dixor, St. Kilda (110), W. Evans, com. W.Y.; Paradfurds (Hungary), Aug., 1928, A.B.

E. circinatum B.E., Torquay (3), Oct., 1936, C.H.B.; Easton (9), Sept., 1934, F.E.M.; Deux-Sèvres (France), May, 1935, J.Ch.; Schynige Platte (Bernese Oberland), May, 1934, D.B.B. "This is *Pseudoleskea atrovirens*," J.B.D.

E. deflexifolium (*Scorpiurum deflexifolium* Lske et Fl.), Loire Inf. (France), Sept., 1935, J.Ch. "I should call this plant *E. circinatum* var. *deflexifolium* Solms., which is a submerged form of *E. circinatum*. I have seen the two plants growing together and the *E. circinatum* becoming more and more typical as it receded from the water," W.E.N.

E. striatum B.E., New Galloway (73), Jan., 1886, J. McAndrew, com. W.Y.; Bieberstein (Rhld.), Jan., 1933, A.Sch.

E. striatulum B.E., Bakonyana (Hungary), May, 1932, A.B.

E. rusciforme Milde, Omassa (Hungary), July, 1932, A.B.

E. murale Milde, Gilmerton (83), Apr., 1902, J. McAndrew, com. W.Y.

E. confertum Milde, Rothersthorpe (32), Jan., 1898, H.N.D.

Sematophyllum demissum Mitt., Killarney (I.2), Sept., 1936, P.W.M.R.

S. substrumulosum Broth., Bussaco (Portugal), May, 1911, H.N.D.

Plagiothecium depressum Dixon, New Galloway (73), Apr., 1897, J. McAndrew, com. W.Y.; Bilston (83), Oct., 1908, J. McAndrew, com. W.Y.; Lillafured (Hungary), Nov., 1936, A.B.

P. denticulatum B.E., Hornstock Wood (32), Apr., 1897, H.N.D.

P. silvaticum B.E., Schladern (Rhld.) July, 1926, A.Sch.

P. Roeseanum B.E., Parad (Hungary), July, 1930, A.B. "This is not *P. Roeseanum* as we understand it; it is too complanate, and the leaves are scarcely concave enough. Nor is it *P. Roeseanum* as described by Moenkemeyer; the cells are much too wide. I should call it *P. silvaticum* slightly approaching var. *Roeseanum*. The figure of *P. silvaticum* in the Bry. Eur. might almost have been drawn from this plant," H.N.D.

P. undulatum B.E., Nelson (59), Apr., 1936, A.T. "Not *P. undulatum* but *P. denticulatum*," J.B.D.

P. latebricala B.E., Wonersh (17), May, 1936, E.C.W.

Amblystegium serpens B.E., Ribchester (59), Sept., 1934, A.T.; Deux-Sèvres (France), Mar., 1935, J.Ch.; Alsodabas (Hungary), Oct., 1928, A.B.; var. *salinum* Carr, Portstewart (I.40), Aug., 1936, W.E.M.

A. fluviatile B.E., Ullswater (70*), May, 1936, E.C.W. et E.M.L.; Loire Inf. (France), Sept., 1935, J.Ch.

A. filicinium de Not., Greywell Marsh (12), June, 1935, E.C.W.; Burntisland (85), June, 1916, J. McAndrew, com. W.Y. "One of these packets contains *Hypnum palustre* only," J.B.D.

Hypnum riparium L., Parad (Hungary), Aug., 1931, A.B.

H. elodes Spruce, Greywell Marsh (12*), June, 1936, E.C.W.

H. polygamum Schp., Spitzbergen, July, 1936, E.A.

H. aduncum Hedw., Dumbarnie Links (85), Oct., 1936, J.B.D.; forma ad var. *polycarpon* Bland ascedens, Boussay (S. et O.) France, leg. Dr. B. de Lead, com. H.N.D.; forma *pseudo fluitans* Moenk., Makarska (Dalmatia), July, 1936, J.F. "var. *paternum* San. Yes," W.R.S.; var. *gracilescens* Schp., Vallinkoski (Finland), July, 1936, L.B.C.T. "This is *H. exannulatum*," W.R.S.

H. Wilsoni Schp., Formby (59), June, 1911, W.G.T.; Ross Links (68), Aug., 1936, J.B.D.

H. lycopodioides Schwg., Freshfield (59), Sept., 1936, J.R.L.

H. exannulatum Guemb., Ben Lawers (88), July, 1936, J.R.L.; Widdup Head (59), Oct., 1936, A.T.; var. *purpurascens* Schp., Ben Nevis (97), July, 1936, E.M.L.; var. *robustum* Roth et van Boek, Abisko (Swedish Lapland), Aug., 1907, W.E.N. et H.N.D.; var. *pinnatum* Boul., Charente Inf. (France), Apr., 1935, J.Ch..

H. uncinatum Hedw., Pentland Hills (83), W. Evans, com. W.Y. "One packet in part is *H. uncinatum*; the rest contain only *H. ochraceum*," J.B.D.; Spitzbergen, July, 1936, E.A.

H. revolvens Swartz., Newham Bog (68), July, 1936, J.B.D. ; Craig Chailleach (88), July, 1897, H.N.D. ; Spitzbergen, July, 1936, E.A.

H. intermedium Lindb., Dunbarnie Links (83*), Oct., 1936, J.B.D.

H. commutatum Hedw., Tongland (73), July, 1881, J. McAndrew, com. W.Y.

H. falcatum Brid., High Force (?), Aug., 1896, H.N.D. ; New Galloway (73), July, 1907, J. McAndrew, com. W.Y. ; Gullane Links (82), Oct., 1911, J. McAndrew, com. W.Y. ; Bonaly Glen (83), Apr., 1902, W. Evans, com. W.Y. ; Tannas (Sweden), Aug., 1935, C.S.

H. cupressiforme L., Craig Chailleach (88), July, 1897, H.N.D. ; var. *resupinatum* Schp., Ardgour (97), July, 1936, E.C.W. ; Deux-Sèvres (France), Feb., 1934, J.Ch. ; var. *filiforme* Brid., Roy Bridge (97*), July, 1936, E.M.L. ; var. *tectorum* Brid., Nant Ffrancon Pass (49), July, 1936, E.A.

H. imponens Hedw., Balerno (83), July, 1912, J. McAndrew, com. W.Y.

H. revolutum Lindb., Dalvik (Iceland), July, 1934, E.W.J.

H. hamulosum B.E., Killin (88), Aug., 1872, G. E. Hunt, com. W.Y. ; Glen Nevis (97*), July, 1936, E.C.W.

H. callichroum Brid., Killin (88), June, 1936, G.H.A. "This is a slender form of *H. molluscum*," J.B.D. ; Glencoyne Wood (69), May, 1936, A.W.

H. molluscum Hedw., var. *fastigiatum* Bosw., Glen Nevis (97*), July, 1936, J.B.D.

H. crista-castrensis L., Balerno (83), July, 1911, J. McAndrew, com. W.Y. ; Achrioch Wood (88), Aug., 1929, D.B.B. ; Achrioch Wood (88), Aug., 1929, F.E.M. ; Hinterstoder (Upper Austria), May, 1936, J.F.

H. molle Dicks., Ben Nevis (97), July, 1936, E.M.L. ; E.C.W. ; idem. Aug., 1936, L.B.C.T.

H. ochraceum Turn., Ben Nevis (97), July, 1936, E.M.L. ; E.C.W. ; Pentland Hills (83), April, 1902, W. Evans, com. W.Y. ; Thingvellir (Iceland), July, 1936, E.A.

H. stramineum Dicks., Pentland Hills (83), May, 1909 ; W. Evans, com. W.Y. ; Blawhorn Moss (84), Apr., 1914, W. Evans, com. W.Y.

H. trifarium W. et M., Ben Lawers (88), July, 1885, J. McAndrew, com. W.Y. ; Ben Lawers (88), Aug., 1934, P.W.M.R.

- H. turgescens* Schp., Spitzbergen, July, 1936, E.A.
- H. giganteum* Schp., Greywell Marsh (12*), June, 1936, E.C.W. ; Dalvik (Iceland), July, 1934, E.W.J.
- H. sarmentosum* Wahl., Ben Chlianaig (97), July, 1936, E.C.W. ; Killin (88), June, 1936, G.H.A. ; var. *fallaciosum* Milde, Spitzbergen, July, 1936, E.A.
- Hylocomium splendens* B.E., Macbiehill (78), 1873, W. Evans, com. W.Y. ; Csakbereny (Hungary), Sept., 1936, A.B.
- H. umbratum* B.E., Killin (88), Aug., 1905, W. Evans, com. W.Y.
- H. brevirostre* B.E., New Galloway (73), May, 1890, J. McAndrew, com. W.Y. ; Killin (88), Aug., 1905, W. Evans, com. W.Y. ; Ard gour (97), July, 1936, E.C.W.
- H. rugosum* de Not., Cross Fell (70), May, 1930, E.C.W. et E.M.L. ; Ben Lawers (88), July, 1885, J. McAndrew, com. W.Y.

EXTRA-EUROPEAN (Including specimens of European species from Countries outside Europe).

Distichium capillaceum (Hedw.) B.E., La Tuque, Quebec, May, 1936, E.A.M. "This is *Dicranum longifolium* Ehrh. Notice the wide nerve, and especially the transverse section of the leaf, which is most distinctive," W.R.S.

Trematodon ambiguus Hornsch., Sherbrooke, Nova Scotia, July, 1924, M.S.B.

Dicranella heteromalla Schp., La Tuque, Quebec., Apr., 1936, E.A.M.

Campylopus umbellatus (W. Arn.) Par., Padang, Sumatra, date (?), leg. Consul Schild, com. J.F.

Encalypta ciliata (Hedw.) Hoffm., La Tuque, Quebec, June, 1936, E.A.M.

Tortula phoea Dixon, Lake Waikaremoana, New Zealand, Oct., 1933, leg. G.O.K. Sainsbury, com. J.Ch.

Bryum pallens Sm., La Tuque, Quebec, June, 1936, E.A.M.

Mnium marginatum (Dicks.), P.B., Sydenham Falls, Ontario, June, 1936, E.A.M. "This is *Mnium serratum* Schrad," W.R.S.

Catoscopium nigratum Brid., Sanble Beach, Ontario, Aug., 1936, E.A.M.

Othotrichum obtusifolium Schrad., Tatamagouche, Nova Scotia, Oct., 1936, leg. J. Purves, com. M.S.B.

Macromitrium brevisetum Mitt., Oahu, Hawaii, Jan., 1930, E.B.B.

Fontinalis dalecarlica B.E., La Tuque, Quebec, May, 1936, E.A.M.

Trachypodopsis ornans Fl., Mani, Hawaii, Feb., 1930, E.B.B.

Papillaria leuconeura (C.M.) Jaeg., Padang, Sumatra, date (?), leg. Consul Schild, com. J.F. "I should refer this to *P. filipendula* (Hf. et W.) Jaeg. The leaves in *P. leuconeura* are adpressed when dry, so that the branches are terete," H.N.D.

Aerobryopsis longissima (W. et M.) Fl., Mani, Hawaii, Feb., 1930, E.B.B.

Homaliodendron flabellatum (Dicks.) Fl., Mani, Hawaii, Feb., 1930, E.B.B.

Homalia Jamesii Sch., Owen Sound, Ontario, Aug., 1936, E.A.M.

Distichophyllum pulchellum (Hf. et W.) Mitt., Lake Waikenemoana, New Zealand, Sept., 1934, leg. G. O. K. Sainsbury, com. J.Ch.

D. Freycinetii (Schwaegr.) Mitt., Oahu, Hawaii, Jan., 1930, E.B.B.

Leskea polycarpa Ehrh., Chamblay, Quebec, June, 1935, E.A.M.

Hygroamblystegium irriguum Loeske, var. *spinifolium* Sch., Owen Sound, May, 1936, E.A.M.

Sciaromarium Lescurii (Sull.) Broth., Hubbards, Nova Scotia, Sept., 1936, M.S.B.

Calliergon giganteum (Sch.) Kindb., Oliphant, Ontario, June, 1936, E.A.M.

Chamberlainia acuminata (Hedw.) Grout, La Tuque, Quebec, July, 1936, E.A.M. "This is *Pylaisia polyantha* B.E. It closely resembles *Hypnum cupressiforme* var. *resupinatum* Schp., but may be readily distinguished by the autoicous inflorescence; also the inner peristome teeth are longer than the outer ones," W.R.S.

Pleuropus Wilkesianus (Sull.) Broth., Mani, Hawaii, Feb., 1930, E.B.B.; Kailua, Hawaii, Jan., 1930, E.B.B.

Hypnum reptile Mx., Waterloo, Quebec, Aug., 1936, E.A.M.

H. recurvans Schwaegr., La Tuque, Quebec, July, 1936, E.A.M.

Isopterygium vineale Bartr., Mani, Hawaii, Feb., 1930, E.B.B.

HEPATICS.

EUROPEAN (British and Continental).

Riccia Bischoffii Hüben, Csakvar, Hungary, Mar., 1936, A.B.

R. intumescens (Bisch.) Haeg., Csakvar, Hungary, Mar., 1936, A.B.

R. glauca L., in stubble of wheat field, Culham, near Abingdon (23). Common on the green sand in both Oxford and Berks., Nov., 1935, E.W.J.

R. sorocarpa Bisch., Bihar, Hungary, Mar., 1936, A.B.

R. nigrella D.C., cliff by the sea, The Lizard, Cornwall (1), Dec., 1936, leg. W.E.N.

Ricciocarpus natans (L.) Corda, Greywell Marsh, North Hants. (12), July, 1936, E.C.W.

Reboulia hemisphaerica (L.) Raddi, Csakbereny, Hungary, June, 1936, A.B.

Tessellina pyramidata (Raddi.) Dum., Vertessomlo, Hungary, April, 1935, A.B.

Clevea hyalina (Somm.) Lindb., Csakbereny, Hungary, June, 1936, A.B.

Grimaldia fragrans (Balb.) Corda, Csakbereny, Hungary, June, 1936, A.B.

Fimbriaria fragrans (Schleich.) Nees, Verteskozma, Hungary, Mar., 1936, A.B.

Aneura pinguis (L.) Dum., Greywell Marsh, North Hants. (12*), June, 1936, E.C.W.

Metzgeria furcata (L.) Dum., Forêt de Chantemerle, Deux-Sèvres, France, Feb., 1934, J.C.

M. conjugata Lindb., St. Blasien, Schwarzwald, Germany, Aug., 1935, A.Sch. "One packet, through an oversight, contains chiefly *Blepharostoma trichophyllum* (L.) Dum.," F.E.M.

M. hamata Lindb., wet rock in shade, Torc Glen, Killarney, Kerry (I.2), Sept., 1936, P.W.R.

M. pubescens (Schrank) Raddi, Dent, N.W. Yorkshire (65), April, 1936, A.T. ; wall Kirkside near Alston, Northumberland (67), May, 1936, E.C.W. ; Nagyvisnyo, Hungary, July, 1934, A.B.

Moerckia Blyttii (Moerck) Brockm., Maol Ghiordie (88), July, 1903, leg. P. Ewing, com. W.Y. ; near summit of Aonach Beag, Westernness (97), July, 1936, E.C.W.

Gymnomitrium concinnatum (Lightf.) Corda, Hafnarfjall, Sijlufjordur, N. Iceland, alt. c.400 m. "The lobes are strongly crenulate probably var. *intermedia*. *Lophozia alpestris*, *Pleuroclada albescens* and *Anthelia juratzkana* also present, June, 1934, E.W.J." "This seems correct as var. *intermedia* Limpr.," F.E.M. "I agree," W.E.N.

G. corallioides Nees, Hafnarfjall, Sijlufjordur, N. Iceland, June, 1934, E.W.J.

Marsupella emarginata (Ehrh.) Dum., rocks, les Epesses, Vendée, France, May, 1933, J.C. ; St. Blasien, Schwarzwald, Germany, A.Sch.

M. aquatica (Lindenb.) Schiffn., Ben Macdhui, S. Aberdeen (92), July, 1935, leg. E.C.W.

M. sphacelata (Gies.) Lindb., Red Burn, Ben Nevis, Westernness (97*), July, 1936, E.C.W.

Alicularia compressa (Hook), Nees, New Galloway (73), Mar., 1894, leg. J. McAndrew, com. W.Y. ; Kallbach, Rheinland, Germany, June, 1934, A.Sch. ; Bowfell, Westmoreland (69), Sept., 1908, J. A. Wheldon and A. Wilson, com. W.G.T.

Aplozia crenulata (Sm.), Dum., Glen Ogle (88), June, 1936, G.H.A.

A. caespiticia (Lindenb.) Dum., Corman Valley, Perranwell (2), May, 1936, G.H.A. "I think this is *A. crenulata* (Sm.) Dum., var. *gracillima* (Sm.) Haeg.," F.E.M. "I agree," W.E.N.

A. cordifolia (Hook) Dum., Ben Lui (98), July, 1936, G.H.A. ; Funnasdalen, Sweden, July, 1937, C.S.

A. riparia (Tayl.) Dum., Birkwood Glen near Kirkmuirhill, Lanarkshire (77), Aug., 1936, J.R.L.

Jamesoniella autumnalis (D.C.) Steph., New Galloway (73), Oct., 1892, leg. J. McAndrew, com. W.Y.

J. Carringtoni (Balf.) Schiffn., Glen Nevis, Westernness (97), July, 1936, E.C.W. ; Coire-na-Mhusgair, Glen Nevis (97), July, 1936, E.C.W. and E.M.L.

Anastrophyllum Donianum (Hook) Steph., Stob Ban, Mamore Forest, Westernness (97), July, 1936, leg. et det. E.C.W.

Gymnocolea inflata (Huds.) Dum., Balcombe Forest, East Sussex (14), April, 1935, leg. E.C.W.

Lophozia turbinata (Raddi), Steph., River Tees, near Barnard Castle, Co. Durham (66*), June, 1936, det. et com. E.M.L.

L. bantriensis (Hook) Steph., South Tyne, above Garrigill, near Alston (70*), May, 1936, E.C.W. and E.M.L.; Bouldsworth Bottoms, S. Lancs. (59), Oct., 1936, A.T.; New Galloway (73), Dec., 1890, leg. J. McAndrew, com. W.Y.; Tannas, Harjedalen, Funnasdalen, Sweden, July, 1935, C.S.

Lophozia ventricosa (Dicks.) Dum., on moist bank by temporary spring, Basar, Grimsey, N. Iceland, July, 1934, E.W.J. "Yes, mixed with other hepatics," F.E.M.; Wiehlgebiet, Immerkopf bei Weiershagen, Rheinland, Germany, July, 1935, A.Sch. "The packets chiefly consist of an aquatic form of *Calypogeia Trichomanis* (L.) Corda, among Sphagnum," F.E.M.

L. confertifolia Schiffn., Balcombe Forest, East Sussex, (14) April, 1936, E.C.W.

L. quinquedentata (Huds.) Cogn., New Galloway (73), Dec., 1890, leg. J. McAndrew, com. W.Y.; with *L. lycopodioides* (Wallr.) Cogn., amongst boulders of raised beach, Grenivik, Grimsey, N. Iceland, July, 1934, E.W.J. "This is very small for *L. lycopodioides*," F.E.M. "I make this plant a form of *L. Floerkii* (Web. et Mohr) Schiffn. The postical margins of the leaves have cilia composed of numerous short, almost quadrate cells, as is characteristic of this species. In *L. lycopodioides* these cilia are composed of narrow elongated cells many times as long as they are broad," W.E.N.

L. Floerkii (Web. et Mohr) Schiffn., am Osthang des Ober-Habsberges, nordl. Krummenkreuz, Schwarzwald, Germany, Oct., 1935, A.Sch. "Good specimens of the var. *Naumanniana* Nees," F.E.M.; var. *Naumanniana* Nees, Braid Hills (83), April, 1904, leg. J. McAndrew, com. W.Y.

L. Kunzeana (Hub.) Evans, near summit of Schiehallion, mid Perth, (88) July, 1936, J.B.D. and H.H.K.

Sphenolobus saxicolus (Schrad) Steph., among rocks by side of Green Loch, Glenmore Forest, near Aviemore (96), July, 1936, J.B.D. and H.H.K.

S. ovatus (Dicks.) Schiffn. (*J. Dicksoni* Hook), Glen Nevis, Westernness (97), July, 1936, E.C.W.

S. Pearsoni (Spruce) Steph., New Galloway (73), Oct., 1887, leg. J. McAndrew, com. W.Y.

S. exsectiformis (Breidl.) Steph., sandy bank, Usselby Moor, (54*), Sept., 1936, G.H.A.

Acrobolbus Wilsoni (Tayl.) Nees, wet rocks in shade, Galways River, Killarney, Kerry (I.2), Sept., 1936, leg. P.W.R.

Anastrepta orcadensis (Hook) Schiffn., Corpach Moss, Fort William, Westerness (97), July, 1936, E.C.W.

Plagiochila asplenioides (L.) Dum., Hofnarfjall, Siglufjordur, N. Iceland, entire-leaved form, June, 1934, E.W.J. ; Csakbereny, Hungary, April, 1936, A.B.

P. spinulosa (Dicks.) Dum., woodland, Ardgour, Westerness (97), July, 1936, E.C.W. ; Ingleton (64), April, 1935, A.T.

P. punctata Tayl., Lamlash (100), June, 1909, leg. J. McAndrew, com. W.Y.

Pedinophyllum interruptum (Nees) Pears., Buckden Woods (64), Sept., 1936, F.E.M.

Leptoscyphus anomalus (Hook) Mitt. (*Myliia anomala*, Gray), Sullington Warren, W. Sussex (13), May, 1935, E.C.W.

Lophocolea heterophylla (Schrad.) Dum., Rheinland, Germany, May, 1935, A.Sch.

Chiloscyphus polyanthus (L.) Corda, Stone Wood, Shepley (63), May, 1932, F.E.M. ; var. *rivularis* (Schrad.) Nees, Birkwood Burn, near Kirkmuirhill, Lanarkshire (77), Aug., 1936, J.R.L.

C. pallescens (Ehrh.) Dum., Verteskozma, Hungary, April, 1935, A.B.

Harpanthus scutatus (Web. et Mohr), Spruce, Seatoller, (70), Aug., 1933, F.E.M. ; damp rocks, Bellingham (67*), Sept., 1935, E.C.W. and E.M.L.

Saccogyna viticulosa (Sm.) Dum., rocks by stream near Patterdale, Westmorland (68), May, 1936, E.C.W. ; roadside, Bochyn, W. Cornwall (1), Dec., 1936, W.E.N.

Cephalozia connivens (Dicks.) Lindb., bog on Ockley Common, Surrey (17), Mar., 1935, E.C.W.

C. media (Lindb.) (*C. lunulaefolia* Dum.), Schwarzwald, Germany, Oct., 1935, A.Sch.

C. macrostachya Kaal., Sullington Warren, W. Sussex (13), May, 1935, E.C.W.

C. fluitans (Nees) Spruce, Balerno (83), Aug., 1909, leg. J. McAndrew, com. W.Y. "Yes, much mixed with other bog Cephalozias," F.E.M.

Nowellia curvifolia (Dicks.) Mitt. (*Cephalozia curvifolia* Dum.), rotting log in Glen Nevis, Westernness (97), July, 1936, E.C.W.; rotting stump by stream, Glen Arkaig (97), Aug., 1936, leg. C.V.B.M., J. Else and L.B.C.T., com. L.B.C.T.; fallen tree, Glen Nevis (97), July, 1936, E.C.W. and E.M.L.

Cephaloziella Nicholsoni Douin et Schiffn., Carbis Bay, West Cornwall (1), June, 1936, W.E.N.

Hygrobiella laxifolia (Hook) Spruce, rocks by stream, Torc Glen, Killarney, Kerry (I.2), Sept., 1936, P.W.R.

Pleuroclada albescens (Hook) Spruce, Ben Nevis (97), July, 1936, E.C.W.

Odontoschisma Sphagni (Dicks.) Dum., Thursley Common, Surrey (17), Mar., 1935, E.C.W.; Corpach Moss, Fort William (97), July, 1936, E.C.W.

O. denudatum (Nees) Dum., Ugglebo, Sweden, May, 1936, C.S.

Calypogeia Neesiana (Carest et Massal) Massal; on grit rocks, Widdup, near Hebden Bridge (63), Oct., 1936, A.T.

C. fissa (L.) Raddi, (*Kantia Sprengelii* Pears.), Rheinland, Germany, Oct., 1936, A.Sch.

C. sphagnicola (Arnell et Perss.) Warnst. et Loeske; amongst sphagna, Shepherds (1*), May, 1936, G.H.A. "This seems only an aquatic form of *C. Trichomanis* (L.) Corda," F.E.M. "This plant does not agree with the authentic specimens of *C. sphagnicola* either from Great Britain or the Continent which I possess. This is a much smaller plant with relatively thicker cell-walls. The aquatic forms of *Calypogeia* are difficult, but I should be inclined to refer the present plant rather to *C. submersa* (Arnell) Warnst.," W.E.N.

C. arguta Nees et Mont., Lambourne, West Cornwall (1), on shady bank, June, 1936, F.R.

Pleuroschisma tricrenatum (Wahlenb.) Dum. (= *Bazzania tricrenata* (Wahl.) Pears., on granite, St. Blasien, Schwarzwald, Germany, Sept., 1935, A.Sch.

Bazzania tricrenata (Wahl.) Pears., Ben Nevis, Inverness (97), July, 1936; Glen Nevis, Westernness (97), E.C.W., July, 1936; Lamlash, Arran (100), June, 1909, leg. J. McAndrew, com. W.Y.

Lepidozia reptans (L.) Dum., Siegtal, Rheinland, Germany, Oct., 1935, A.Sch.

L. Pearsoni Spruce, New Galloway (73), May, 1898, leg. J. McAndrew, com. W.Y.

L. setacea (Web.) Mitt., Thursley Common, Surrey (17), May, 1935, E.C.W. ; Schwarzwald, Germany, Aug., 1935, A.Sch.

Blepharostoma trichophyllum (L.) Dum., Garrigill, Cumberland (70), May, 1936, E.C.W. ; rocks, Ardoch Burn, Renfrewshire (76), April, 1936, J.R.L.

Chandonanthus setiformis (Ehrh.) Lindb., var. *alpinus* (Hook) Kaal ; Loch Brandy, Clova (90), June, 1930, W.Y.

Anthelia julacea (L.) Dum., Coire Leis, Ben Nevis (97), July, 1936, E.C.W.

Herberta Hutchinsiae (Gottsche) Evans, amongst boulders on slope below Llyn Adar, Beddgelert (49), Sept., 1935, E.W.J. ; Stob Ban, Glen Nevis, Westernness (97), July, 1936, E.C.W.

Mastigophora Woodsii (Hook) Nees, Coire na Mhusgair, Glen Nevis (97), July, 1936, E.C.W. and E.M.L. ; Glendhu, Moidart, (97), Jan., 1898, leg. J. Macvicar, com. W.Y.

Ptilidium ciliare (L.) Hampe, forma *inundatum* Schiffn., shady wet bank in wood, Imatra, Finland, July, 1936, L.B.C.T. "I think this is nearer type," F.E.M. "I should make this plant the type rather than the forma *inundatum*. The latter is a more slender taller plant with fewer cilia," W.E.N. ; North Cape, Norway, July, 1936, E.A.

P. pulcherrimum (Web.) Hampe, Eldroth (64), Sept., 1932, C.A.C. and F.E.M. ; on root of tree Vallinkoski, Finland, July, 1936, L.B.C.T.

Trichocolea tomentella (Ehrh.) Dum., Aggergebiet, Genkeltal, Rheinland, Germany, Oct., 1936, A.Sch.

Scapania subalpina (Nees) Dum., Long Downs (2), May, 1936, G.H.A. ; New Galloway (73), July, 1893, leg. J. McAndrew, com. W.Y.

S. verrucosa Haeg., Sufers near Splugen, Switzerland, July, 1924, J.B.D. and H.H.K.

S. calcicola (Arn. et Perss.), Ingham, Balquidder (88), June, 1936, G.H.A. "This is a form of *S. irrigua* (Nees) Dum.," F.E.M.

S. aspera Bernet, Heyshott Down, West Sussex (13), June, 1935, E.C.W. ; limestone walls, Austwick (64), A.T. ; Cross Fell, Pennine Range (70), May, 1936, E.C.W. ; Csakbereny, Hungary, June, 1936, A.B.

S. nemorosa (L.) Dum., Loch Lomond (86), May, 1904, leg. J. McAndrew, com. W.Y. ; on thin earth over boulder, Parson's Allotment Wood, Tintern (35), June, 1935, E.W.J. "A

young state much mixed with *Diplophyllum albicans* (L.) Dum.,” F.E.M.

S. ornithopodioides (With.) Pears., Glen Nevis (97), June, 1936, E.C.W. and E.M.L.

S. dentata Dum. (*S. purpurascens* Pears.), St. Blasian, Schwarzwald, Germany, Sept., 1935, A.Sch. ; var. *ambigua* De Not, on grit covered stones in stream, Trelleck (35), June, 1935, E.W.J.

S. intermedia (Husnot) Pears., rocks, Ardoch Burn, Renfrewshire (76), April, 1936, J.R.L.

S. undulata (L.) Dum., Red Burn, Ben Nevis (97), July, 1936, E.C.W. ; Tulloch (96), July, 1936, G.H.A. and A.H.

S. uliginosa (Swartz) Dum., Carn Dearg, Ben Nevis (97), July, 1936, E.C.W. ; Ben Nevis (97), July, 1936, H.H.K. and J.B.D.

S. umbrosa (Schrad), Dum., Roman Wall, Northumberland (67), Aug., 1936, E.M.L. ; Gunnarp, Holland, Sweden, May, 1936, C.S.

S. Jonesii Schiffn., trees by water, Cromagloun, Killarney, Co. Kerry, Ireland (I.2), Aug., 1935, leg. D.A.J. See note in Distributor's report, supra.

Radula complanata (L.) Dum., trees, Forêt de Chantemerle, Deux-Sèvres, France, Feb., 1934, J.C.

Pleurozia purpurea (Lightf.) Lindb., Ben Lui (98), July, 1936, G.H.A. ; Glen Nevis (97), July, 1936, E.C.W. ; shore of Loch Coruisk, Isle of Skye (104), July, 1936, E.C.W.

Madotheca laevigata (Schrad.) Dum., Cross Fell (70), May, 1936, E.C.W. ; woods at Staward, Northumberland (67), Oct., 1935, E.C.W. ; Josvofo, Hungary, June, 1936, A.B.

M. Thuja (Dicks.) Dum., rocks by the sea near St. Monans, Fife (85), Oct., 1936, J.B.D. ; Tarbert, Loch Fyne (101), June, 1912, leg. J. McAndrew, com. W.Y. ; The Lizard, Cornwall (1), Dec., 1934, W.E.N.

M. platyphylla (L.) Dum., Koszeg, Hungary, Sept., 1930, A.B. ; Largo Law, Fife (85), Oct., 1936, J.B.D.

M. Cordeana (Hüben) Dum., Raxalpe, Austria, May, 1936, leg. et det. J.F.

Cololejeunea Rossettiana (Massal) Schiffn., Aggtelek, Hungary, June, 1936, A.B.

Lejeunea cavifolia Buch-emend., St. Blasien, Schwarzwald, Germany, Aug., 1934, A.Sch. ; Parad, Hungary, June, 1936, A.B.

L. planiuscula (Lindb.) emend. Buch, rocks near Tressaddern Farm, The Lizard, Cornwall (1), April, 1934, leg. W.E.N.

L. patens Lindb., in wood by Loch Maree, West Ross (105), July, 1936, J.B.D. and H.H.K.

L. Macvicari Pears., rocks, Bonithon plantation, West Cornwall (1), May, 1936, leg. W.E.N.

Microlejeunea ulicina (Tayl.) Evans, Forêt de Chantemerle, Deux-Sèvres, France, Feb., 1934, J.C. ; on trees, Ardgour, Westernness (97), July, 1936, E.C.W.

Marchesinia Mackaii (Hook) Gray, Portpatrick (74), July, 1894, leg. J. McAndrew, com. W.Y.

Frullania germana Tayl., rocks on shore of Loch Linnhe (97), July, 1936, E.C.W.

F. Tamarisci (L.) Dum., rocks, Argenton Chateau, Deux-Sèvres, France, Mar., 1935, J.C. ; Borostyanko, Hungary, Sept., 1930, A.B. ; Aardal, Norway, July, 1936, E.A. ; var. *Schiffneri* Nich., rocks near the sea, Kynance Cove, Cornwall (1), May, 1933, leg. H.H.K.

F. microphylla (Gottsche) Pears., rocks by the sea, Coverack, Cornwall (1), May, 1936, leg. W.E.N.

F. dilatata (L.) Dum., trees, St. Florent des Bois, Vendée, France, Mar., 1934, J.C.

Anthoceros crispulus (Mont.) Douin, c.fr. on arable land, Upper Cheddon, near Taunton, Somerset (5), Nov., 1936, W.W.

**SOME HEPATICS DISTRIBUTED IN 1935-6
and not included in last Report.**

Splenolobus Hellerianus (Nees) Steph., rotten trunk in woods, Oxenkopf, Murgthal, Schwarzwald, Germany, alt. 950 m., July, 1935, E. W. Jones.

S. exsectus (Schmid.) Steph., on bark of decaying trunk, Langegruide, N. Schwarzwald, Germany, alt. 3400, July, 1935, E.W.J.

S. exsectiformis (Breidl.) Steph., on old wall, Kylvoe plantation (68), Oct., 1935, J.B.D.

Cephalozia macrostachya Kaal., Sphagnum bog, Studland (9), Sept., 1934, E.W.J., det. H.H.K.

Nowellia curvifolia (Dicks.) Mitt., Schaumunzach, Murgthal, Germany, July, 1935, E.W.J.

Ptilidium pulcherrimum (Web.) Hampe, Langegruide, N. Schwarzwald, Germany, alt. 7400, July, 1935, E.W.J.

Scapania subalpina (Nees) Dum., damp earth by stream, alt. c. 50 m., Dalvik, Eyjafjordur, N. Iceland, July, 1934, E.W.J.

Radula Carringtoni Jack., Eagles Nest (I.1), Aug., 1935, D.B.B.

Madotheca laevigata (Schrad.) Dum., Torc Glen (I.2), Aug., 1935, J.B.D.

M. laevigata v. *killarniensis* Pears., Torc Cascade (I.2), July, 1909, D.A.J.

Lejeunea flava (Swartz.) Nees, Eagles Nest (I.2) Aug., 1935, D.A.J.

Harpalejeunea ovata (Hook) Schiffn., Torc Mountain (I.2), Aug., 1935, D.A.J.

Jubula Hutchinsiae (Hook) Dum., by stream in shady valley, Tintern (35*), July, 1935, E.W.J.

**NON-EUROPEAN (including Specimens of European
Species from Countries outside Europe.)**

Sphenobolus exsectiformis (Breidl.) Steph., on vertical rock, Lawrence Town, Halifax, N.S., Aug., 1936, det. W.E.N., col. M.S.B.

Bazzania trilobata (L.) Gray, on wet shaded bank, Halifax, N.S., Oct., 1936, M.S.B.

Lepidozia sylvatica Evans, on rock in shade, Hubbard's, N.S., Sept., 1936, det. W.E.N., col. M.S.B.

Marchantia geminata Nees, Shembaganur, Indes Anglaises, Feb., 1932, leg. R. Pe G. Foreau, com. J.C.

Frullania Pallichiana Mitt., Shembaganur, Indes Anglaises, Feb., 1932, leg. R. Pe G. Foreau, com. J.C.

Gyrothya underwoodiana Howe plus *Nardia rubra* (Gottsche) Evans, Neskowin, Oregon, U.S.A., about lat. 45°4' N., long. 123°54' W., on clay cut along Neskowin Creek, July, 1936, coll. T.C.F., det. L.C.

Nardia rubra (Gottsche) Evans, Darrington, Washington, U.S.A., on clay bank about 10 miles northward, April, 1934, coll. T.C.F., det. L.C. "Dr. Verdoorn has kindly given me a reference in *The Bryologist*, 1919, Vol. XXII., p. 62 et seqq. to *Nardia rubra* (Gottsche) Evans, in which Dr. Evans discusses this plant at some length. It is perhaps most clearly allied to *Aplozia crenulata* var. *gracillima* (Sm.) Haeg, but it is probably best regarded as a distinct North American plant." W.E.N.

Riccardia multifida (L.) S. F. Gray. (= *Aneura multifida*, (L.) Dum.,) Florence, Oregon, U.S.A., about 20 miles north-east on rocky bank, Mar., 1935, coll. T.C.F., det. L.C.

Frullania nisquallensis Sull., Port Orford, Oregon, U.S.A., on spruce tree, about 2 miles north-west, July, 1936, coll. T.C.F., det. T.C.F.

F. franciscana M. A. Howe, Charleston, Oregon, U.S.A., on fallen spruce near ocean, Mar., 1935, coll. T.C.F., det. L.C.

Scapania undulata Dum., Florence, Oregon, U.S.A., about 20 miles north-east on wet rocky bank, Mar., 1935, coll. T.C.F., det. L.C.

Radula bolanderi Gottsche, Port Orford, Oregon, U.S.A., on bark of spruce, about 2 miles north-west, July, 1936, coll. T.C.F., det. L.C.

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CENSUS CATALOGUES.

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 List of additional V.C. Records since the issue of
 Supplements in 1935, but not distributed or
 otherwise published.

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 MOSSES.
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- Tetraphis Browniana* Grev., Luds Church, Gradbach (39),
 Apr., 1936, T.H.B.B.
- Catharinea crispa* James, Black Brook, Gradbach (39),
 Apr., 1936, T.H.B.B.
- Polytrichum strictum* Banks, Kilrea (I.40), Sept., 1936,
 W.R.M.
- Pleuridium alternifolium* Rabenh., The Lizard (1), May,
 1935, J.B.D.
- Ditrichum tenuifolium* Lindb., Fort William (97), July,
 1936, J.B.D.
- D. zonatum* Limpr., Ben Nevis (97), July, 1936, E.M.L. and
 E.C.W.
- Seligeria Doniana* C.M., Shepton Mallet (6), Apr., 1935,
 C.E.J.
- S. acutifolia* var. *longiseta* Lindb., Whitepark Bay (I.39),
 Aug., 1936, W.R.M.
- Brachyodus trichodes* Fuernr., Black Brook, Gradbach (39),
 June, 1936, T.H.B.B.
- Dichodontium pellucidum* Schp., Dry Hill, Dormans (17),
 Apr., 1936, E.C.W.
- D. pellucidum* var. *fagimontanum* Brid., Ben Nevis (97),
 July, 1936, E.M.L.
- Dicranella cerviculata* Schp., Trelleck Bay (35), Herb., Aug.
 Ley, per H.H.K.
- D. secunda* Lindb., Gler Nevis (97), July, 1936, E.C.W. and
 E.M.L.
- Campylopus Schimperi* Milde, Hoy, Orkney (111), Mar.,
 1935, J. Sinclair, per J.B.D.
- C. setifolius* Wils., Garvagh (I.40), J.D.H.
- Dicranum scoparium* var. *orthophyllum* Brid., Kilrea (I.40),
 J.D.H.

D. scoparium var. *spadiceum* Boul., Abney Clough (57), Sept., 1936, F.C.

D. Scottianum Turn., Barra (110), 1935, Harrison, per E.M.L.

D. flagellare Hedw., on birch trunk, Achrioch Wood (88), Aug., 1913, J.B.D. This was distributed as *D. montanum*—See M.E.C. Report, 1914. V.C. (88) for *D. montanum* should be deleted.

D. montanum Hedw., Woodend, Bowsden (68), May, 1936, J.B.D.

Fissidens exilis Hedw., Kyloe Plantations (68), May, 1936, J.B.D. ; Kilrea (I.40), Jan., 1912, J.D.H.

F. rivularis Spruce, Tintern (35), Mar., 1935, E.W.J.

F. osmundoides Hedw., Granaghan (I.40), May, 1913, J.D.H.

Grimmia conferta Funck., Torquay (3), Oct., 1936, C.H.B.

G. decipiens Lindb., Loxy Tump, Llanthony (35), Herb., Aug. Ley, per H.H.K.

Tortula marginata Spruce, Tanfield (65), May, 1935, W.H.B.

Barbula cylindrica Schp., Kilrea (I.40), Mar., 1936, J.D.H.

B. gracilis Schwaeg., Penhale Sands (1), May, 1935, H.H.K.

B. convoluta Hedw. var. *Sardoia* B. & S., Swaffam Bulbeck (29), Mar., 1935, C.E.J. ; Earlsferry (85), Oct., 1936, J.B.D.

Weisia squarrosa C.M., Bagley Wood (22), Apr., 1935, C.E.J.

Trichostomum crispulum var. *elatum* Schp., Monksdale (57), Aug., 1935, F.C.

T. crispulum var. *nigro-viride* Braithw., Manifold Valley (39), Sept., 1936, T.H.B.B.

T. crispulum var. *brevifolium* B. & S., Torquay (3), Oct., 1936, C.H.B.

T. tortuosum var. *fragilifolium* Dixon, Crossfell (70), May, 1936, E.M.L. and E.C.W.

Orthotrichum pulchellum Smith, Hoy, Orkney (111), Mar., 1935, J. Sinclair, per J.B.D.

O. diaphanum Schrad., Kilrea (I.40), July, 1936, J.D.H.

Discelium nudum Brid., Flash Bottom Brook (39), Oct., 1936, T.H.B.B.

Orthodontium gracile var. *heterocarpum* Watson, Worst-horne Moor, near Burnley (59), July, 1936, W.H.B.

Webera proligera Brhyn., Arisaig (97), July, 1936, E.M.L.

- Plagiobryum Zierii* Lindb., Stanshope (39), Sept., 1936, T.H.B.B.
- Bryum Marratii* Wils., near Portstewart (I.40), Aug., 1906, W.R.M.
- B. erythrocarpum* Schwaeg., Granahan (I.40), May, 1913, J.D.H.
- Mnium serratum* Schrad., Gortin (I.40), Sept., 1936, J.D.H.
- Heterocladium heteropterum* B. & S., Black Brook, Gradbach (39), Apr., 1935, T.H.B.B.
- H. heteropterum* var. *fallax* Milde, Kilrea (I.40), Mar., 1936, J.D.H.
- Thuidium Philiberti* Limpr., Wetton, Manifold Valley (39), Sept., 1936, T.H.B.B.; Dunbarnie Links (85), Oct., 1936, J.B.D.
- Cylindrothecium concinnum* Schp., Hall Dale, North Hope (39), Nov., 1936, T.H.B.B.
- Eurhynchium myosuroides* var. *brachythecioides* Dixon, Hoy, Orkney (111), Mar., 1935, J. Sinclair, per J.B.D.
- Plagiothecium elegans* Sull., Ness Glen (I.40), Aug., 1936, W.R.M.
- P. denticulatum* var. *aptychus* Spruce, Cuffley Woods (20), Apr., 1935, F.E.M.
- P. silvaticum* B. & S., Ness Glen (I.40), Aug., 1936, W.R.M.
- Amblystegium irriguum* B. & S., Garvagh (I.40), July, 1913, J.D.H.
- A. fluviatile* B. & S., Aira Force (70), May, 1936, E.M.L. and E.C.W.
- Hypnum elodes* Spruce., Lurgan (I.37), Sept., 1917, J.D.H.
- H. hispidulum* var. *Sommerfeltii* Myr., Bagley Wood (22), Apr., 1935, C.E.J.
- H. Sendtneri* Schp., Ross Links (68), Sept., 1936, J.B.D.
- H. lycopodioides* Schwaeg., Magilligan (I.40), Aug., 1936, W.R.M.
- H. cupressiforme* var. *ericetorum* B. & S., Brigg (54), June, 1935, E.M.L., Sixtowns (I.40), June, 1936, W.R.M.
- H. cupressiforme* L. var. *minus* Wils., Rostrevor Mt. (I.38), Nov., 1936, W.R.M.
- H. hamulosum* B. & S., Langstrothdale (64), Apr., 1936, C. A. Cheetham, per W.H.B.

J. B. D.

HEPATICS.

List of Hepatic records, additional v.c.'s, etc., since the issue of the Supplement and not distributed or otherwise published.

- Riccia sorocarpa* Bisch., Burnham (24), 1935, A.M.S.
Riccia fluitans (L.), Terrybank Tarn (69), Aug., 1935, A.W.
Reboulia hemisphaerica (L.) Raddi, Cotswolds (33), 1936, F.E.M.
Aneura pinguis (L.) Dum., ————— (35), E.A.
Aneura sinuata (Dicks.) Dum., var. *major* (Lindb.), Dunmore Head (I.1), 1935, B.B.S. Excur.
Fossombronia Dumortieri (Hüb. et Genth.) Lindb., Horsford (27), S. A. Manning, per A. Mayfield; Terrybank Tarn (69), Aug., 1935, A.W.
Gymnomitrium concinnatum (Lightf.) Corda. Delete (68), fide J.B.D.
Lophozia Mülleri (Nees) Dum., above Lough Cruttia (I.1), 1935, B.B.S. Excur.
Lophozia bicrenata (Schmid.) Dum., Mangerton (I.2), 1935, B.B.S. Excur.
Plagiochila asplenoides (L.) Dum., forma *laxa* Mat. (35), E.A.
Plagiochila asplenoides (L.) Dum. var. *major* Nees, Hoy (111), J. Sinclair, per J.B.D.; Muckcross (I.2), 1935, B.B.S. Excur.; forma *subintegerrima* Schiffn. (3), (42), (75), (91), E.A.
Leptoscyphus cuneifolius (Hook), Mitt., wood by Loch Maree (105), 1936, J.B.D. and H.H.K.
Chiloscyphus pallescens (Ehrh.) Dum. Delete (35).
Cephalozia macrostachya Kaal, Burn Moor, N.W. side (60), June, 1935, F.E.M.
Cephalozia leucantha Spruce, Cae Coch Quarry, Dolgarrog (49), N. Woodhead, det. W.E.N.
Cephalozia affinis Lindb., near Old Weir Bridge, Killarney (I.2), Aug., 1935, D.A.J.
Nowellia curvifolia (Dicks.) Mitt. Delete (66), fide J.B.D.
Odontoschisma denudatum (Nees) Dum., Kent (15 or 16), E. M. Holmes, Sp. in Herb. Royal Bot. Garden, Edinburgh; Eagle's Nest (I.2), 1935, B.B.S. Excur.

Calypogeia Neesiana (Carest et Massal.) K. Müll., Slaggyford (67), E.M.L.

Lepidozia pinnata (Hook) Dum., Hoy (111), J. Sinclair, per J.B.D.

Lepidozia reptans (L.) Dum. var. *julacea* Nees. (17), (60), E.A.; Dent Crag (65), A.W.; Barbondale (69), A.W.; (88), E.A.

Herberta adunca (Dicks.) Gray, Hoy (111), J. Sinclair, per J.B.D.

Ptilidium ciliare (L.) Hampe, forma *inundatum* Schiffn., Widdy Bank Fell (66), June, 1931, F.E.M.

Scapania uliginosa (Swartz), Dum., Helvellyn (69), 1936, A.W.

Radula Lindbergiana Gottsche, Landulph (2), C.P.H.; Dartmouth (3), H.H.K.

Madotheca Porella (Dicks.) Nees. (9), E.A.

Lejeunea cavifolia (Ehrh.) Lindb., Buch emend. (3), (6), (14), W.E.N.; (33), (34), H.H.K.; (40), J.B.D.; (42), (44), (48), H.H.K.; (69), A.W.; (88), J.B.D.; (I.2), W.E.N.; (I.38), J.B.D.

If the records for the old var. *planiuscula* are added the numbers will be as follows:—3, 5, 6, 14, 33, 34, 40, 42, 44, 48, 49, 64-66, 69, 71-73, 75, 78, 79, 81, 82, 84, 88, 90, 97. I. 1, 2, 38.

Lejeunea planiuscula (Lindb.) Buch. emend. Near the Lizard (1), W.E.N.; (3), H.H.K.; (10), W.E.N.; (35), H.H.K. (37), J.B.D.; (45), H.H.K.; (49), W.E.N.; Brown Gill, Langdale (69), A.W.; (70), (81), J.B.D.; near Arisaig (97), J.B.D. and H.H.K.; By Loch Maree (105), J.B.D. and H.H.K.; Barra (110), E. V. Watson, per J.B.D.; (I.2), W.E.N.

Harpalejeunea ovata (Hook) Schiffn. Delete (44).

Frullania germana Tayl. (1) remove brackets.

Anthoceros punctatus L., near Haxey (54); Bawtry (56); Cantley (63), 1936, A. A. Dallman, per A.W.

A.W.

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An asterisk (*) denotes that a copy of the work has been presented to the Library.

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I am greatly obliged to all who have forwarded reprints of either their own or other works for presentation to the Library, or for indexing purposes. In the latter connection I would stress the difficulty of indexing merely from references in the Reviews; for lack of space often prevents reviewers from giving the names of new species, and the Index remains to that extent incomplete. I shall therefore be extremely grateful to all who can spare on loan any copies of new works that come into their hands, if these cannot actually be presented to the Library. They will be returned as soon as possible to the lenders.

(Signed) LESLIE B. C. TROTTER.

26th April, 1937.

OBITUARY.

DAVID ANGELL JONES (1861-1936).

The members of our Society, and many other bryologists in all parts of the world, received a shock when they learned of the death of our President and late Secretary. Owing to ill-health he was unable to fulfil his presidential duties in our last meeting at Cheltenham, and felt compelled to resign his secretarial post which he had held so ably since the formation



of the Society at Dolgelly in 1922. Hopes were entertained that his illness would prove to be temporary and that a rest would enable him to resume his normal activities. This had happened on previous occasions but this time our hopes were frustrated. An operation was advised and he went into Bristol Hospital for that purpose, but he gradually sank into a state of coma and died on 6th October, 1936, from carcinoma of the gall-bladder.

He was born in Liverpool on 14th July, 1861, and first became known to phanerogamic botanists when he was a schoolmaster at Machynlleth. It was after he took up scholastic duties at Harlech that he attained prominence as an authority on the flora of Carnarvonshire and Merionethshire, and many botanists owe a large measure of gratitude

for the marvellous way in which he guided them to the floristic riches of these two counties.

We are chiefly familiar with his guidance in bryological work. His keen eye and wonderful memory of detail, habitat and locality made him unrivalled as a showman for the bryophytes, and all of us have been stimulated in travels o'er craggy rock and boggy moor by the incentive of finding the rare plants he told us were there. Never were our hopes unfulfilled; sometimes a particular rarity was elusive but we were always rewarded with some important and interesting addition to our field-knowledge of the bryophytic flora. On the ordinary road he was an unwilling plodder, but when localities rich in bryophytes were reached all his weariness disappeared, the crags were trodden with the sureness and activity of a mountain goat and both crag and moor were made to yield their bryophytic treasures.

For the wonderful advances of this century in the knowledge of the distribution of bryophytes, Jones was largely responsible. Many vice-comital records, not only for N. Wales, but for other parts of the country were to his credit, and a number of plants new to the British Isles, some in fact new to science, were his discoveries. His secretarial work, first for the Moss Exchange Club (Section II.) and later for the Bryological Society, entailed so much writing that he rarely published any accounts of his work except in the Reports of these two societies. In the Journal of Botany he gave an account of the bryophytic riches of Killarney (1913), told of the discovery of *Gymnocolea acutiloba* in Britain (1913), and described four new varieties of mosses (1917). In the "Naturalist" of 1925, an account of the lichens of Ingleton appeared.

His knowledge of lichens was not so profound as that for bryophytes, but he was keenly interested in them during the last ten years and he has done excellent work in extending the knowledge of their distribution.

He was always keen on seeing any new plants *in situ*. Those who were at the Portinscale meeting will remember how he went back home by a very devious course in order to see *Dicranum undulatum* near Selby. One of his last field-days with me was when he came to Taunton to see two varieties of mosses. I had sent him a soil-cutting of the field containing these two plants and, as he had never seen them *in situ*, he wrote asking if he could come over and see them. By return post he was told to come at once as the field was being ploughed. Next morning he arrived just in time to collect

sufficient material of these plants, though this was only possible because the ploughman gave his horses a long rest. He was also very thorough in his examination of suitable localities. We remember how he often came back from excursions with plants which we had passed over. On one occasion when we had spent about two hours investigating the epiphytes on the trunks of pines he bewailed the fact that there were still six pines which we'd not examined. He was an interesting companion in the field, his keenness and almost uncanny power of detecting rare or infrequent plants surprised and stimulated those who were fortunate to be with him.

During the war his scholastic work at Harlech was interrupted when he became a lecturer in agriculture under the University of Wales, work which proved much more congenial to him than his usual duties. His botanical work in N. Wales was recognised by the degree of M.Sc. being bestowed on him in 1922, and in 1925 he was elected an Associate of the Linnean Society. After his retirement from school work at Harlech he has resided on the Riviera, at Cheltenham and at Bristol. He was buried at the latter place on 8th October, and on such a sad occasion, it is a source of satisfaction that the two preceding Presidents of the Bryological Society were able to attend the funeral and pay their last respects, not only personally, but also on behalf of the Society. The deep sympathy of all our members goes out to his widow and family.

His herbarium has been acquired, partly by the British Museum (Nat. Hist.) and partly by the National Museum of Wales (Cardiff). His MS flora of Carnarvonshire and Merionethshire has also been deposited at Cardiff.

W. W.

WILLIAM BELLERBY (1852-1936).

A native of York, educated at St. Peters School and articled in an architect's office, he in due course joined his father in the old-established family business of timber merchants and contractors at Hungate Saw Mills (destroyed by fire three months after his death, June, 1936), of which, under the name of W. Bellerby and Sons, Limited, he later became life governing director. The firm was noted for its joinery and carried out important contracts.

Of a quiet unassuming manner, he was a well-known and popular man in his city, a member of the Merchant Adventurers Company, a Freemason and a good linguist. An enthusiastic botanist, he encouraged the Botanical section of the Yorkshire Philosophical Society; he was a working member of the British Bryological Society and its forerunner, The Moss Exchange Club, Section II., contributing regularly during more than thirty years, to the annual exchange; his collection of mosses is now in the possession of the British Museum.

The interment at York cemetery, on March 30th, was preceded by a largely attended service in Clifton Methodist Chapel. The Society was represented by W. H. Burrell, to whom the thought occurred that there could be no better permanent memorial to a good craftsman and respected citizen than the handsomely appointed chapel where he regularly worshipped, the building of which he had supervised and which he was then leaving for the last time.

W. H. B.