

The British Bryological Society

Formerly the Moss Exchange Club,
Founded 1896.



REPORT FOR 1939.

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Distribution costs, 1939-40 (estimated)		3	0	0
Printing Report, 1939 (estimated)		20	0	0
Balance (excess of Assets over Liabilities)		108	3	10
		£136	1	4

Barclays Bank, Ltd., Berwick-on-Tweed.

13th *January*, 1940.

ACCOUNT for 1939.*EXPENDITURE.*

Printing Report, 1938	....	....	....	....	£22	2	6
„ Circulars	....	....	....	....	1	4	0
Distribution Costs, 1938-39	....	....	....	....	3	1	8
Secretary's Expenses	....	....	....	....	2	2	7
Treasurer's „	....	....	....	....	1	5	2
Excursion Secretary's Expenses	....	....	....	....	1	2	0
Subscriptions, <i>Bryologist</i> and <i>Revue Bryologique</i>					0	19	10
Balance on hand, 31st December, 1939					134	16	4

£166 14 1

31st DECEMBER, 1939.*ASSETS.*

Cash in hand					£134	16	4
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£136 1 4

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.

Now that the country has again fallen on the evil times of war it behoves us as a society to hold together and to do what we can to keep up an interest in the things we feel are so essential to a happy life. Some Natural History Societies have closed down for the period of the war and these may find it difficult to restart in the future. Those with which the writer happens to be connected have decided to keep up their activities so far as circumstances permit, and this seems to be the happier and wiser course. At present the hours devoted to the study of mosses is so much time gained from the obtrusive thoughts raised by the unceasing news of unpleasant happenings around us.

It has been decided to attempt to hold the annual meeting at Aberystwyth in August, as arranged at our last meeting, though the excursions may have to be on a restricted scale. At any rate, Miss Armitage and Mr. Knight have kindly agreed to visit Aberystwyth shortly in order to try to make arrangements for our stay there.

The grateful thanks of the Society are tendered to Messrs. Young and Lee for the work they did in connection with the Fort William Meeting. An account of the gathering, written by Miss Armitage, will be found in another part of this Report.

Thanks are due to the hard work put in by the Distributors and Referees on the Distribution and also to Mr. Marquand for compiling the Recent Bryological Publications list for the last Report. Owing to the severance of Mr. Marquand's connection with Kew, he felt that he could no longer keep in touch with current bryological literature and so Mr. Sherrin, when asked to do so, very kindly accepted the office of Bibliographer. For war-time convenience Dr. Trotter's card-index remains at Kew at present, but Mr. Sherrin hopes to have it in his possession soon.

Mr. Horsley's production of a typed copy of the list of Sphagna and True Mosses sent in for distribution will be of great help in the printing of the Report.

Mr. Sherrin has received much help from Mr. H. H. Wesenecroft in the compilation of the List of Recent Bryological Publications, and for this the Society tenders its most grateful thanks.

The number of members is about the same as last year, Can we persuade others to join and increase our number ?

An attempt has been made to remind members of Mr. Dixon's paper in the last Report, pp. 117-120, on revised nomenclature of mosses by inserting in the Report on Plants sent in by members the correct name in brackets after the one to which we are accustomed.

One result of the war is a great reduction in the number of mosses sent in for distribution. Only three foreign members have contributed, and fewer British members have sent in supplies, and most of these are in reduced amount. On the other hand the number of packets of hepatics has increased from 571 to 617, but more than half of the increase is due to the contributions of three foreign members.

We are sorry to record the death of a former member of the Society, Rev. David Lillie, at Swiney, near Lybster, Caithness, on 21st February, 1940, at the age of 85. He was a member of the B.B.S. for many years, only breaking his connection with it in 1938. His herbarium is now at the University of Glasgow, where it is very much appreciated.

Members do not make much use of the books belonging to the Society. There is a list of them on the inside of the cover of this Report.

A. THOMPSON.

May, 1940.

[Extracted from THE JOURNAL OF BOTANY, November, 1939.]

REPORT OF THE ANNUAL MEETING, 1939.

By ELEONORA ARMITAGE.

The British Bryological Society held its Annual Meeting and Excursion at Fort William, Inverness-shire, from June 24th to July 1st, 1939; thirty-four members and friends were present. A good deal of the Ben Nevis range and surrounding country was explored, beginning with the nearby Corpach Moss, and, owing to a drought of several weeks duration, it was easy to walk over the usually submerged areas. A striking feature was sheets of Cotton grass with huge dangling silvery heads; also the starry white flowers of the large Sundew. The first attack on the Ben Nevis *massif* took place up Glen Nevis, driving seven miles up a rough track, followed by a winding path to the top of the Glen and the Waterfall. The bryophyte flora was in an unusual state of desiccation, many plants crumbling to dust at a touch. Most of the well-known rarities were seen, and some additional records made for this rich area. The shores and woodland around Loch Linnhe occupied another day. A break in the weather delayed the ascent of Ben Nevis; when the summit was reached its rarities were hidden under the snow. The limestone rocks of Creag Aoil, near Fort William, added many species. Other parts of Lochaber were visited, Glen Roy, Glenfinnan, Ardgour, etc.

The Annual Meeting took place on June 27th under the Presidency of Miss E. Armitage. At the conclusion of the business the President read her presidential address on "*Naiadita*, a Rhaetic Bryophyte."

The Lists, which follow, include the rarer species found, with localities; new records for v.c. 97 (Westernness) are starred.

SPHAGNA.

Arranged by Mr. A. Thompson; all are new records for v.c. 97 except those marked (v.c. 98).

Sphagnum Girgensohnii var. *robustum*, Pass of Glencoe (v.c. 98); var. *microcephalum*, Glen Nevis. *S. molle* var. *molluscoides*, Glen Nevis and moor near Tulloch station; Clachaig Inn, Glencoe (v.c. 98). *S. compactum* var. *sub-*

squarrosus, Corpach Moss and Glen Nevis; var. *imbricatum*, Loch Linnhe and Ben Nevis. *S. squarrosus* var. *subsquarrosus*, side of Ben Nevis. *S. amblyphyllum* var. *macrophyllum*, Camusnagaul and Glen Nevis. *S. recurvum* var. *parvulum*, Glen Nevis. *S. fallax* var. *laxifolium*, bog near Creag Aoil. *S. cuspidatum* var. *plumulosum*, Glen Nevis. *S. subsecundum* var. *robustum*, Glen Nevis. *S. auriculatum* var. *tenellum*, Fort William; var. *laxifolium*, Glen Nevis; var. *submersum*, bank of Red Burn, Ben Nevis; Pass of Glencoe (98). *S. crassicladium* var. *magnifolium*, near Fort William and Arisaig; Pass of Glencoe (98); var. *intermedium*, Ben Nevis. *S. Camusii*, Arisaig. *S. papillosum* var. *sublaeve*, Corpach Moss.

TRUE MOSSES.

Andreaea alpina, *A. nivalis* and var. *fuscescens*, Ben Nevis. *Tetraphis Browniana*, Glen Nevis. *Ditrichum tenuifolium*, Fort William. *Seligeria pusilla**, Creag Aoil. *Rhabdoweisia crenulata**, Glen Nevis. *Campylopus flexuosus* var. *zonatus**, Glen Nevis. *Dicranum Schisti*, *D. Starkei*, *D. uncinatum*, *D. asperulum*, Ben Nevis; *D. Bonjeani* var. *rugifolium**, Corpach Moss. *Fissidens decipiens**, Creag Aoil. *Rhacomitrium ellipticum*, *R. ramulosum**, Ben Nevis. *Barbula rubella* var. *dentata**, Glen Nevis; *B. tophacea**, *B. spadicea**, *B. convoluta**, Creag Aoil. *Weisia curvirostris**, Sunart. *Trichostomum crispulum** and var. *brevifolium**, Creag Aoil; *T. tenuirostre*, Glen Nevis. *Zygodon Lapponicus*, *Z. conoideus*, Glen Nevis. *Ulota Hutchinsiae*, Ben Nevis. *Orthotrichum anomalum* var. *saxatile**, Ballachulish; *O. cupulatum**, Creag Aoil; *O. affine**, Coire Choille, Spean Bridge. *Schistostega osmundacea**; this very rare moss, only once before found in Scotland, in Stirlingshire, was discovered by Mrs. Combe of Achriabhach, Glen Nevis, in a cave at the head of Glen Nevis on July 24th, after the visit of the B.B.S. *Splachnum sphaericum*, *S. ampullaceum*, Corpach Moss. *Tetraplodon mnioides*, Ben Nevis. *Aulacomnium androgynum**, Glen Nevis. *Conostomum boreale*, Ben Nevis. *Bartramia Oederi*, Creag Aoil; *B. pomiformis* var. *crispa**, Glen Nevis. *Philonotis seriata*, Glen Nevis. *Leptobryum pyriforme**, *Webera annotina* var. *erecta** and var. *bulbifera**, Glen Nevis. *Bryum filiforme*, *B. inclinatum**, Glen Nevis; *B. pendulum**, *B. atropurpureum* var. *gracilentum**, Fort William. *Cinclidium stygium**, desiccated, on dried marsh, Loch Oich. *Neckera pumila**, Loch Sunart; var. *Philippeana*, Glen Nevis. *Anomodon viticulosus**, Creag Aoil. *Orthothecium intricatum**, Creag Aoil. *Brachythecium glareosum**, and *Eurhynchium Swartzii**, Creag Aoil. *Amblystegium Sprucei**, Glen Nevis. *Hypnum stellatum*

var. *protensum**, Creag Aoil ; *H. cupressiforme* var. *filiforme**, Glen Nevis ; var. *tectorum*, Creag Aoil ; *H. callichroum* and *H. molluscum* var. *condensatum**, Glen Nevis ; var. *fastigiatum**, Creag Aoil ; *H. molle*, Ben Nevis ; *H. arcticum**, Glen Nevis ; *H. Schreberi* c. fr., Glen Roy.

HEPATICS.

This is a very short list, nearly all from Ben Nevis and Glen Nevis. *Aneura latifrons*, *A. palmata*. *Marsupella Stableri*, *M. Pearsoni*. *Gymnomitrium obtusum*, *G. crenulatum*, *G. varians*. *Lophozia alpestris*. *Sphenolobus ovatus*, *S. exsectus*, *S. exsectiformis*. *Anastrepta orcadensis*. *Plagiochila punctata*. *Chiloscyphus polyanthus*. *Nowellia curvifolia*. *Bazzania tri-crenata*. *Herberta Hutchinsiae*. *Scapania subalpina* var. *undulifolia*, *S. umbrosa*. *Pleurozia purpurea*. *Lejeunea patens*. *Harpalejeunea ovata*.

At Creag Aoil :—*Metzgeria pubescens**, *Lophozia Mulleri*, *Scapania aspera*. On Corpach Moss :—*Odontoschisma Sphagni*, *Calypogeia Trichomanis*, *Scapania gracilis*. Near Fort William :—*Calypogeia fissa*, *Microlejeunea ulicina*, *Frullania germana*, Loch Linnhe ; *F. fragilifolia*, Kinloch Leven.

ABSTRACT OF ADDRESS BY THE PRESIDENT.

Here is appended a short abstract of the President's Address on *Naiadita*. This is a Hepatic of the British Rhaetic Flora, which has been studied recently by T. M. Harris, Professor of Botany, Reading University. The work, "The British Rhaetic Flora," was published in 1938 by the Trustees of the British Museum; and, lately, he has contributed an account of his work to the "Annales Bryologice," Vol. 12.

Naiadita was found and named by Buckman, 1850. The material is very well preserved in hard rocks of very fine calcium carbonate; it grew in shallow fresh-water lakes, in large, upright, leafy patches, in the upper Rhaetic Beds in Gloucestershire and Somerset. Only one other British Rhaetic hepatic is known, *Hepaticites solenotus*, in the same beds, very rare.

The slender stem, less than an inch high, with about thirty unbranched rhizoids, bears a number of leaves, up to twenty, in a spiral. The leaves are usually lanceolate, with a single layer of cells and no midrib. They are from 1 to 5 mm. long: the rectangular cells have delicate walls and no trigones.

The archegonia are lateral, at first naked, then becoming enveloped in a perianth resembling foliage leaves. The stalks elongate and form fruit pedicels. The ripe capsule is full of spore-tetrads and has no sterile cells. The perispore bears small tubercles and spines. The rich chestnut brown capsule dehisces irregularly, showing it was cleistocarpic. Conical gemma-cups are numerous, the gemmae are oval, two cells thick, with apical germination. They are so numerous that in some bedding-planes they are the commonest fossils. They give rise to a leafy plant, and an immense number of these embryo plants are found.

Though the material of *Naiadita* was abundant and well searched, no antheridia have ever been found. Yet many of the abundant archegonia were fertilised, as the ripe spores and spore tetrads were frequent, scattered, or in sporangia. The antheridia of Liverworts have far more delicate walls than have the archegonia. Their walls swell up and break down, and may have been too evanescent for preservation, while those of old archegonia become hardened. The morphology of this peculiar hepatic points to its being a primitive form, possibly near to *Sphaerocarpaceles*.

ELEONORA ARMITAGE.

REPORT OF DISTRIBUTORS (Mosses).

The number and interest of the specimens sent for distribution is very gratifying in view of the conditions prevailing. Three of our European members, M. Charrier, Dr. Boros, and Herr Störmer, have managed to send us contributions. Some of the latter's plants were collected in Britain during his visit to this country last Spring.

As there are not so many surplus packets this year, fewer parcels are being sent out. Those members who have furnished us with details of their desiderata are mostly receiving a parcel. A few for members abroad are being held back until we can send with a certainty of their being received.

The Referees, to whom we all owe special thanks this year, report that the material was well prepared and mostly correctly named, but a few packets were inadequate as specimens. It does not pay to make a small amount of material do for three or four packets. The Referees and Distributors do not send out such packets to the members.

Mr. Horsley has kindly compiled the Report on the Mosses again this year with customary efficiency.

A. MURIEL SAUNDERS.
EDWARD C. WALLACE.

April 22nd, 1940.

REPORT OF DISTRIBUTOR (Hepatics).

Of the 617 packets sent in for distribution this year no fewer than 278 come from two contributors (Messrs. Boros and Charrier) outside the British Isles. This leaves 339 packets from 14 British members. In spite of difficulties arising from the state of war, these numbers cannot be regarded as unsatisfactory. The Referee reports that more attention is being paid by members to packetting free from dirt, etc., and most species are correctly named. No non-European hepatics have been sent in for distribution this year.

C. M. BEDFORD.

Taunton.

March 17th, 1940.

MOSSES AND HEPATICS SENT FOR DISTRIBUTION, 1938.

		<i>Sphagna</i>	<i>True Mosses</i>	<i>Hep-atics</i>	<i>Total</i>
Miss E. Armitage	....	—	31	22	53
Dr. A. Boros (Hungary)	....	27	125	234	386
Mr. D. B. Bradshaw	....	—	20	8	28
Mons. J. Charrier (France)	....	—	144	44	188
Mr. H. N. Dixon	....	—	122	—	122
Mr. J. B. Duncan	....	—	79	28	107
Miss U. Duncan	....	32	50	—	82
Mr. J. D. Houston	....	—	38	—	38
Mr. A. B. Jackson	....	—	35	—	35
Mr. E. W. Jones	....	4	48	52	104
Mr. H. H. Knight	....	—	4	20	24
Mr. J. R. Lee	....	37	47	17	101
Miss E. M. Lobley	....	66	47	10	123
Mr. W. E. Nicholson	....	—	50	50	100
Dr. P. W. M. Richards	....	—	25	16	41
Mr. F. Rilstone	....	—	7	—	7
Miss A. M. Saunders	....	—	12	—	12
Mr. F. A. Sowter	....	8	—	—	8
Herr P. Störmer (Norway)	....	—	27	24	51
Mr. A. Thompson	....	117	10	—	127
Miss J. S. Thomson	....	—	12	—	12
Mr. W. G. Travis	....	3	5	12	20
Dr. L. B. C. Trotter	....	—	45	—	45
Mr. A. Turner	....	3	18	—	21
Mr. E. C. Wallace	....	—	200	19	219
Mr. A. Wilson	....	—	43	—	43
Dr. W. Watson	....	—	34	22	56
Miss M. Weightman	....	—	3	—	3
Mrs. A. White	....	—	39	—	39
Mr. W. Young	....	—	100	39	139
		297	1,420	617	2,334

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. CROSLAND.
Tortulaceæ to Orthotrichaceæ	....	Dr. WATSON.
Schistostegaceæ to Leskeaceæ (except Bryum)	.... ....	Mr. RILSTONE.
Hypnaceæ	.... .... ....	Mr. J. B. DUNCAN.
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 ON PLANTS SENT IN BY MEMBERS.

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

SPHAGNA.

Sphagnum fimbriatum Wils., Knockewart Loch (75), May, 1939, J.R.L. "This is the var. *validius* Card.," G.F.H.; var. *intermedium* Russ., Blanchland (67*), July, 1937, E.M.L.; var. *laxifolium* W., Terrington Carr (62), June, 1938, A.Th.; Greenshaw Plain, Hexham (67*), June, 1935, E.M.L.

S. Girgensohnii Russ., var. *robustum* W., Ardlui, Loch Lomond (99*), June, 1938, E.M.L.; Plockton near Kyle (105*) June, 1938, E.M.L.; var. *microcephalum* W., Glen Nevis (97*), June, 1939, E.M.L. and A.Th.

S. Warnstorffii Russ., Eshells Moor, Hexhamshire Common (67*), Sept., 1937, E.M.L.; Loch Morar (97*), June, 1938, E.M.L.

S. quinquefarium Lindb., Strath of Arisaig (97*), June, 1938, E.M.L.; Puck's Glen (98*), Aug., 1939, J.R.L. "Probably correct, but the leaves are not conspicuously 5-ranked," G.F.H.

S. plumulosum Roell, Glen Nevis (97), June, 1939, J.R.L.

S. molle Sull., var. *molluscoides* W., moor near Tulloch station (97*), June, 1939, A.Th.; Glen Nevis (97), June, 1939, E.M.L.; near Clachaig Inn, Glencoe (98*), June, 1939, E.M.L.; var. *limbatum* W., boggy ground, Rainford Junction (59*), July, 1939, W.G.T.

S. compactum D.C., Hoverla (Hungary), July, 1939, A.B. "This is the var. *subsquarrosum* W.," A.Th.; var. *squarrosum* Russ., Ethie Wood near Arbroath (90*), Dec., 1938, U.D.; var. *subsquarrosum* W., Corpach Moss near Fort William (97*), June, 1939, J.R.L. and A.Th.; Glen Nevis (97), June, 1939, A.Th.; var. *imbricatum* W., Loch Linnhe near Fort William (97*), June, 1939, E.M.L.

S. strictum Sull., Blar Dubh, Isle of Eigg (104), June, 1939, E.M.L.

S. squarrosum Pers., var. *spectabile* Russ., Tarpataki vizesések (Hungary), Aug., 1938, A.B.; Rescobie Loch (90), May, 1939, U.D.

S. teres Ångstr., Javorina (Hungary), Aug., 1938, A.B.
 "This is *S. Girgensohnii* Russ., var. *microcephalum* W.,"
 A.Th.

S. riparium Ångstr., near Loch Brandy, Clova (90*), Sept.,
 1939, U.D.

S. amblyphyllum Russ., var. *mesophyllum* W., Plockton
 near Kyle (105*), June, 1938, E.M.L.

S. pulchrum W., deep bogs, Studland Heath (9), Jan.,
 1937, E.W.J. ; bog near Creag Aoil (97), June, 1939, A.Th.

S. recurvum P. de Beauv., var. *robustum* Breidl., Greenhead
 Gill, near Grasmere (69), Sept., 1938, A.Th. ; Hallsenna Moor
 (70), April, 1939, A.Th. ; var. *majus* Ångstr., Glen Nevis (97),
 June, 1939, E.M.L.

S. fallax Klinggr., var. *laxifolium* W., Spence Moor,
 Sabden (59*), Sept., 1939, A.Tu. ; Widdy Bank, Teesdale (66*),
 May, 1939, A.Th. ; var. *plumosum* W., Ethie Wood, near
 Arbroath (90*), May, 1939, U.D.

S. cuspidatum Ehrh., var. *falcatum* Russ., near Creag Aoil
 (97), June, 1939, A.Th. ; forma *tenellum*, Eliot Moor (90),
 Oct., 1939, U.D. ; var. *plumosum* Bryol. germ., Rossie Moor
 (90*), March 1939, U.D.

S. molluscum Bruch, Corpach Moss (97), June, 1939,
 A.Th.

S. obesum Wils., var. *canovirens* W., Widdy Bank,
 Teesdale (66*), May, 1939, A.Th.

S. subsecundum Nees, Mugdock Loch (86*), Aug., 1925,
 J.R.L. "This is the var. *intermedium* W.," A.Th. ;
 var. *robustum* W., Glen Nevis (97*), June, 1939, A.Th.

S. inundatum Russ., above Loch Dochart, near Crianlarich,
 1,300 ft., (88*), Aug., 1917, J.R.L. "It is var. *robustum* (W.)
 Sherin," A.Th. ; var. *robustum* (W.) Sherrin, Greenhead Gill,
 near Grasmere (69), Sept., 1938, A.Th. ; var. *eurycladum* (W.)
 Sherrin, near Fort William (97), June, 1939, A.Th. ; Loch
 Bracadale, Isle of Skye (104*), June, 1938, E.M.L. ; a form
 near var. *eurycladum* (W.) Sherrin, Terrington Carr (62),
 June, 1938, A.Th. ; var. *lancifolium* W., Eggene, Nordfjord
 (Norway), July, 1938, A.Th. ; Tom Gill, near Coniston (69),
 April, 1939, A.Th. ; var. *diversifolium* W., Skipwith
 Common (61*), July, 1934, A.Th.

S. auriculatum Schp., Ben Chabhair (87*), 2,400 ft., July,
 1919, J.R.L. "This is var. *ovatum* W.," A.Th. ; var.
ovatum W., Bicton Common (3), April, 1938, A.Th. ; Greenhead

Gill, near Grasmere (69), Sept., 1938, A.Th. ; bog near Creag Aoil (97), June, 1939, A.Th. ; var. *laxifolium* W., Glen Dochart, Killin (88*), June, 1938, E.M.L. ; var. *submersum* W., Widdy Bank, Teesdale (66*), May, 1939, A.Th. ; bank of Red Burn, Ben Nevis (97*), July, 1939, A.Th. ; a form near var. *submersum* W., Greenhead Gill, near Grasmere (69), Sept., 1938, A.Th. ; var. *plumosum* W., High Raise (69*), Sept., 1935, A.Th.

S. crassycladum W., var. *magnifolium* W., Moira canal reservoir (55*), July 1939, F.A.S. ; Widdy Bank, Teesdale (66*) May, 1939, A.Th. ; Pass of Glencoe (98*), July 1939, A.Th. ; Castlebay, Isle of Barra (110*) Aug., 1939, K.B. Blackburn, det. and com. E.M.L. ; var. *diversifolium* W., Hallsenna Moor (70*), April, 1939, A.Th. ; var. *intermedium* W., Ben Nevis (97*), July, 1939, A.Th.

S. contortum Schultz, Harter Fell, Westmorland (69), Sept., 1938, A.Th.

S. platyphyllum W., Camu snagaul, Ardgour (97), June, 1939, A.Th.

S. imbricatum Hornsch., var. *cristatum* W., Aberfoyle (87*), Sept., 1915, J.R.L. ; Glen Falloch (87), Aug., 1917, J.R.L. ; moor near Tulloch station (97), June, 1939, A.Th.

S. centrale C. Jens., Hoverla (Hungary), 1,700 m., July, 1939, A.B. ; Mencsul (Hungary), 1,350 m., July, 1934, A.B.

S. magellanicum Brid., Mencsul (Hungary), 1,350 m., July, 1934, A.B. ; Corpach Moss, near Fort William (97), June, 1939, A.Th. and J.R.L. ; Kilpatrick Hills (99*), 1,000 ft., Sept., 1918, J.R.L.

TRUE MOSSES.

EUROPEAN (British and Continental).

Names in square brackets [] are the "Correct Names" of column 3 on pp. 117-120 in the Report for 1938.

Andreaea petrophila Ehrh. [= *A. rupestris* Hedw.,] Rozsnyó (Hungary), May, 1939, A.B.

A. nivalis Hook., Nuolja, Abisko (Tornean Lapland), Aug., 1907, H.N.D. ; rocks liable to flooding near snow patch, 3,600 ft., Cairngorm (96), June, 1938, P.W.M.R. ; Ben Nevis (97), 4,400 ft., June, 1939, J.R.L. ; forma, above Stac an Faraidh, Cairngorm (94), June, 1938, E.W.J. "Covering boulders, etc., in a hollow at the foot of a steep slope facing E. and bearing vegetation of a very pronounced late-snow character. It would appear that this hollow acts as a sump for water from melting snow draining from the slope. Transitions to the normal form of the plant were present ; this tended to occur on tops of boulders," E.W.J.

Oligotrichum hercynicum Lam., Bwlch y Groes (48), Sept., 1938, M.W.

Polytrichum sexangulare Floerke [= *P. norvegicum* Hedw.], Ben Lawers (88), Aug., 1903, J.B.D., com. W.Y.

P. piliferum Schreb., New Galloway (73), Aug., 1890, J. McAndrew, com W.Y.

Archidium alternifolium Schp., woodland near Plaistow (13), April, 1938, E.C.W.

Pleuroidium subulatum Rabenh. [= *P. acuminatum* Lindb.], heathland, Nutley (14), March, 1939, E.C.W., Sukoró (Hungary), March, 1939, A.B.

Ditrichum tortile Lindb. [= *D. pusillum* var. *tortile* Brid.], roadside, Kiruna (Swedish Lapland), Aug., 1907, H.N.D.

Swartzia inclinata Ehrh, [= *Distichium inclinatum* (Hedw.) B. & S.], Barry Links (90), June, 1886, A. P. Lowson, com. W.Y.

Seligeria tristicha B. & S., limestone cavern, Alabastrom-barlang, near Tatrabarlangliget (Hungary), 1,400 m., Aug. 1938, A.B.

S. calcarea B. & S., vertical cliff, Cherry Hinton chalk-pit, near Cambridge (29), Jan., 1939, P.W.M.R.

S. setacea (Wulf.) Lindb., on sandstone rocks, Hoverla, near Tiszabogdány, Comit. Máramaros (Hungary), 1,700-2,000 m., July, 1939, A.B.

Rhabdoweisia fugax B. & S., on rocks, Forêt de Vouvant, Vendée (France), Nov., 1938, J.C.

Cynodontium strumiferum De Not., boulder by stream, Glen Esk (90), May, 1939, U.D.

C. gracilescens Schp., wood above hotel at Sulden (Tirol), Aug., 1904, W.E.N. et H.N.D., com. H.N.D.

Dicranella Grevilleana Schp., on soil, Sulden (Tirol), Aug., 1904, H.N.D.

Campylopus flexuosus Brid., Glen Nevis (97), June, 1939, A.M.S.; var. *zonatus* Limpr., rocks above Llyn Dinas, Bedd-gelert (49), July, 1888, H.N.D.; wood by Loch Assynt, Inchnadamph (108*), July, 1939, J.B.D.

C. setifolius Wils., Glentogher, Inishowen (I.34), Aug., 1939, J.D.H.

C. atrovirens De Not., damp rocks near Crag Lough, Bardon Mill, (67*), July, 1939, E.M.L.

C. introflexus Brid., wet rocks near the shore, Barmouth (48), July, 1939, A.Tu. "This is *C. atrovirens*. Note the upper areolation and inflated auricles," F.C.

Dicranum falcatum Hedw., summit of Ben Nevis (97), June, 1939, D.B.B.

D. spurium Hedw., Holmsley Bog, New Forest (11), April, 1930, W.E.N.

D. Bonjeani De Not., New Forest (11), May, 1939, P.S.; var. *rugifolium* Bosw., hillside, Fort William (97*), June, 1939, E.A.

D. Scottianum Turn., Glentogher, Inishowen (I. 34), Aug., 1939, J.D.H.

D. montanum Hedw., Hárshegy, Budapest (Hungary), 300 m., April, 1938, A.B.

D. uncinatum C.M., Glen Nevis (97), May, 1939, P.S.; wood by Loch Assynt, Inchnadamph (108), J.B.D. et H.H.K.

D. asperulum Mitt., Glen Nevis (97), June, 1939, J.B.D.

Leucobryum albidum Lindb., New Forest (11), May, 1939, P.S.

Fissidens exilis Hedw., wood near Middle Old Park, Farnham (17), April, 1939, E.C.W.

F. pusillus Wils., var., *minutulus* Sull. (= var. *madidus* Spruce), St. Michel le Cloucq, Vendée (France), Sept., 1938,

J.C. ; Lillafüred, Comit. Borsod (Hungary), 250 m., Nov., 1936, A.B.

F. incurvus Starke, Hendon (20), Jan., 1933, A.Wh.

F. crassipes Wils., Mervent, Vendée (France), Sept., 1938, J.C. ; Gönyü, Comit. Györ (Hungary), 110 m., Aug., 1933, A.B.

F. rufulus B. & S., Strid near Bolton Abbey (64), Aug., 1934, A.Wh.

F. osmundoides Hedw., Coniston (69), April, 1939, A.Tu. ; Olden, Nordfjord (Norway), July, 1925, L.B.C.T.

F. decipiens De Not., [= *F. cristatus* Wils.], Creag Aoil, near Fort William (97*), June, 1939, E.A. ; Meja (Croatia), May, 1939, A.B.

Grimmia crinita Brid., on a wall, Lissotte, Vendée (France), Nov., 1938, J.C. ; var. *elongata* Schp., on a wall, Bastia (Corsica), March, 1939, P.W.M.R.

G. torquata Hornsch., on rocks, Lapenscharte (Tirol), 8,000 ft., Aug., 1937, L.B.C.T., det. J.B.D., com. L.B.C.T.

G. orbicularis Bruch, on limestone, Great Ormes Head (49), March, 1928, A. Wils. ; on a wall, L'Hermenault, Vendée (France), March, 1938, J.C.

G. trichophylla Grev., New Galloway (73), May, 1892, J. McAndrew, com. W.Y. ; on walls, Inchnadamph (108), July, 1939, J.B.D.

G. Stirtoni Schp., Killin (88), July, 1885, J. McAndrew, com W.Y.

G. decipiens Lindb., Sarsen stones, Clatford Bottom, near Marlborough (7), April, 1939, E.C.W. ; Montiers, Deux Sèvres (France), April, 1938, J.C.

G. elatior B. & S., Schwarzsee, near Berlinerhütte, Tirol (Austria), 8,000 ft., Aug., 1937, L.B.C.T., det. J.B.D., com. L.B.C.T.

G. anomala Hampe, stone wall, Seljestad (Norway), July, 1900, W.E.N. et H.N.D., com. H.N.D.

G. Doniana Sm., New Galloway (73), June, 1887, J. McAndrew, com. W.Y. ; Ben Avon (92), July, 1939, E.C.W.

G. ovata Schwaeg. [= *G. ovalis* (Hedw.) Lindb.], near Berlinerhütte, Tirol (Austria), 7,500 ft., Aug., 1937, L.B.C.T., det. J.B.D., com. L.B.C.T.

G. commutata Huebn., on rocks, St. Mamet, Luchon, Pyrenees (France), Aug., 1902, H.N.D.

G. montana B. & S., on rocks, Montiers, Deux Sèvres (France), April, 1938, J.C.

G. alpestris Schleich., Floitental, Tirol (Austria), 7,500 ft., Aug., 1937, L.B.C.T., det. J.B.D., com. L.B.C.T.

Rhacomitrium ellipticum B. & S., Glen Nevis (97), July, 1939, J.B.D.

R. protensum Braun, Great Langdale (69), May, 1936, A. Wils. ; Kentmere (69), June, 1886, C. H. Waddell, com. W.Y.

R. heterostichum Brid., var. *alopecurum* Huebn., Ben Nevis (97), July, 1939, J.B.D.

R. sudeticum B. & S., Cader Idris (48), July, 1939, A.Tu.

R. ramulosum Lindb. [= *R. microcarpum* (Hedw.) Brid.], Ben Nevis (97*), July, 1939, J.B.D.

Hedwigia ciliata Ehrh., Sarsen stones, Clatford Bottom, near Marlborough (7), April, 1939, E.C.W.

H. imberbis Spruce, Braithwaite (70), Sept., 1933, W.W. ; Traprain Law (82), Oct., 1908, J. McAndrew, com W.Y.

Braunia alopecura (Brid.) Limpr., on rocks, Merano Trentino (Italy), Aug., 1904, W.E.N. et H.N.D., com. H.N.D.

Merceya ligulata (Spruce) Schimp., cliffs near Lac d'Oo (Pyrenees), Aug., 1902, H.N.D.

Phascum curvicolle Ehrh. [= *P. curvicollum* Hedw.], earth-covered tops of limestone walls, Cumnor Village (22*), Dec., 1938, E.W.J. "Very abundant in this habitat in several places in the Oxford district, and always associated with abundant *Pottia lanceolata*," E.W.J. "It may be advisable to emphasise the presence of the *Pottia* in Mr. Jones' welcome packets of *Phascum curvicollum*, as the capsules of the former are far more noticeable than those of the latter in this gathering: for the ecologist the packets are admirably packetted," W.W.

Pottia recta Mitt., sea-cliffs near Rottingdean (14), Feb., 1939, E.C.W. ; Tremone Bay, Inishowen (I.34), Aug., 1939, J.D.H. ; Vix, Vendée (France), Dec., 1938, J.C.

Tortula aloides De Not., Beaumaris (52), Dec., 1871, G. E. Hunt, com. W.Y.

T. cuneifolia Roth, hedgebank, Cheddon Fitzpaine, near Taunton (5), March, 1938, W.W.

T. mutica Lindb., by old canal, Billingshurst (13), June, 1939, E.C.W.

T. alpina B. & S., var. *inermis* Milde, rocks near water, Merano, Trentino (Italy), Aug., 1904, H.N.D.

T. laevipila Schwaeg., var. *laevipilaeformis* Limpr., on elm trunk, Lambriggan, Perranzabuloe (1), June, 1939, F.R.

T. intermedia Berk., Sizergh Fell (69), March, 1892, J. Martin, com. W.Y.

T. ruralis Ehrh., rocks near the caves, Inchnadamph (108*), July, 1939, E.C.W.

Crossidium squamigerum (Viv.) Jur., on walls, L'Hermenault, Vendée (France), J.C.

Barbula rubella Lindb. [= *B. recurvirostra* (Hedw.) Dix. comb. nov.], var. *dentata* Schp., June, 1939, rocks at head of Glen Nevis (97*), A.M.S., D.B.B. et J.B.D. "All the three lots are similar and from the same locality. It is certainly a taller plant than the type, and the leaves are more strongly dentate at the apices. The margin of the leaf is occasionally recurved near the apex," W.W.

B. tophacea Mitt., near South Queensferry (84), Sept., 1906, J. McAndrew, com. W.Y.; Héreg (Hungary), April, 1939, A.B.

B. recurvifolia Schp. [= *B. reflexa* Brid.], Penyghent (64), Aug., 1934, A.Wh. "There is some similarity in appearance and colour to *B. recurvifolia*, which is not uncommon about Penyghent, but the leaves of these specimens are not trifarious and not sufficiently recurved, so it must go with *B. fallax*," W.W.

B. Nicholsoni Culman, by the river at Hardham Mill (13), May, 1939, E.C.W.; rocks by R. Tweed, Cornhill (68), June, 1939, J.B.D.

Didymodon glaucus Ryan (= *Barbula glauca* Dixon), mortar of stone wall, Baveno, Lago di Maggiore (Italy), April, 1912, W.E.N. et H.N.D., com. H.N.D. "Original of *Eucladium verbanum* Nichols. et Dix.," H.N.D.

Barbula commutata Jur. (= *B. convoluta* Hedw., var. *Sardoa* B. & S.), L'Hermenault, Vendée (France), March, 1938, J.C.

B. flavipes B. & S., earth among fir roots, Gosau (Austria), Aug., 1908, H.N.D.

B. paludosa Schleich., St. Wolfgang, Salzkammergut (Austria), Aug., 1908, H.N.D.

Leptodontium flexifolium Hampe, Penyghent (64), Aug., 1934, A.Wh.

Weisia crispata C.M., Dunure (75*), April, 1939, J.R.L.

W. rupestris C.M., Ingleton (64), Aug., 1934, A.Wh.; limestone rocks, Creag Aoil, Fort William (97), June, 1939, J.B.D.

W. curvirostris C.M. [= *W. recurvirostra* (Hedw.) Dix. comb. nov.], wet rocks, Kinghorn (85), Jan., 1904, W. Evans, com. W.Y.; old lead mine, Bellsgrrove Lodge, Sunart (97*), June, 1939, E.M.L.

W. verticillata Brid., limestone rocks between Dingwall and Ardtullie (106), July, 1939, E.C.W.

Trichostomum crispulum Bruch, moist rocks, Dunure (75), April, 1939, J.R.L.; var *brevifolium* B. & S., Creag Aoil, Fort William (97*), June, 1939, E.A.

T. mutabile Bruch [= *T. brachydontium* Bruch], Mervent, Vendée (France), July, 1938, J.C.

T. flavovirens Bruch, Gullane (82), Aug., 1912, J. McAndrew, com W. Y.; Longeville, Vendée (France), May, 1938, J.C.

Tortella inclinata Limpr. (= *Trichostomum inclinatum* Dixon), Pótharasz (Hungary), May, 1933, A.B.

T. nitidum Schp., L'Hermenault, Vendée (France), March, 1938, J.C.

T. tortuosum Dixon, rocks near the caves, Inchnadamph (108), July, 1939, E.C.W.

T. fragile Dixon, Dunnet Links (109), Nov., 1904, D. Lillie, com. W.Y.

Cinclidotus Brebissoni Husnot [= *C. mucronatus* (Brid.) Moenk. & Loeske], trees by the Mole, Boxhill (17), April, 1939, E.C.W.

C. fontinaloides P. Beauv., Laig, Isle of Eigg (104*), June, 1939, E.M.L.

C. riparius Arnott [= *C. nigricans* (Brid.) Dix. comb. nov.], Mervent, Vendée (France), Sept., 1938, J.C. "Capsules are present in a few of the packets," W.W.

Encalypta rhabdocarpa Schwaeg., Largo Links (85), June, 1919, W. Evans, com. W.Y.

E. apophysata N. & H., Pic de Piméné (Pyrenees), 8,000 ft., Aug., 1902, H.N.D.

Zygodon conoideus Hook. & Tayl., on elder, Houndean, Lewes (14), March, 1928, W.E.N. "Mixed with other material, as fruiting *Cryphaea heteromalla*; even some *Z. viridissimus*, with recurved leaves and brown septate gemmae is present. The *Zygodon* with capsules, so far as examined, is certainly *Z. conoideus*, the capsule possessing a peristome and the gemmae being hyaline septate," W.W.

Ulotia vittata Mitt., on hazel near Fort William (97), July, 1923, W.E.N.

U. Hutchinsiae Hamm., dry rocks near Upper Fall, Glen Nevis (97), 800 ft., June, 1939, J.R.L.

Orthotrichum rupestre Schleich., Sarsen stones, Clatford Bottom, near Marlborough (7), April, 1939, E.C.W.; boulders by Loch Assynt, Inchnadamph (108), July, 1939, J.B.D.; rocks by Loch Mhaloch Coire (108), July, 1939, E.C.W.

O. anomalum Hedw., Aberdour (85), July, 1915, J. McAndrew, com. W.Y.

O. cupulatum Hoffm., stone buttress by river, Northwater Bridge (90), Aug., 1939, U.D. "No calyptrae were seen, but the plant goes better under var. *nudum* Braithw.," W.W.

O. leiocarpum B. & S., Glen Loin, Arrochar (99), May, 1938, E.C.W.

O. Lyellii Hook. & Tayl., c.fr., trees, Lochay Bridge, Killin (88), July, 1893, H.N.D.

O. rivulare Turn., stones by river, Northwater Bridge (90) Aug., 1939, U.D.

O. pulchellum Smith, on beach, Ethie wood, near Arbroath (90), May, 1939, U.D.

O. diaphanum Schrad., on a wall, Clayton (14), May, 1939, E.C.W.

Splachnum ampullaceum L., Plockton, near Kyle (105*), June, 1938, E.M.L.; Crockbrack, Inishowen (I.34), Aug., 1939, J.D.H.

S. sphaericum Linn. fil. [= *S. ovatum* Hedw.], Widdy Bank, Teesdale (66), May, 1939, A.Th.; peat hags on the south side of Little Fell, near Hilton (69), 2,000 ft., June, 1933, A. Wils.

S. vasculosum L., bog on Ben Cruichben, near Killin (88), July, 1905, A. Wils.

Tayloria lingulata Lindb., in bogs near sea level, Dalvik, Eyjafjord (N. Iceland), July, 1934, E.W.J.

Entosthodon ericetorum Schp. (= *Funaria obtusa* (Hedw.) Lindb.), Montiers, Deux Sèvres (France), April, 1938, J.C.

Funaria fascicularis Schp., Sukoró (Hungary), April, 1939, A.B.

F. dentata Crome (= *F. calcarea* Wahl.), Alsógalla (Hungary), April, 1939, A.B.

F. hungarica Boros, Jászkarajenő (Hungary), May, 1937, A.B.

Timmia austriaca Hedw., Schynige Platte (Bernese Oberland), May, 1934, D.B.B.

Conostomum boreale Swartz [= *C. tetragonum* (Brid.) Lindb.], Swirrel Edge, Helvellyn (70), July, 1891, H.N.D.

Bartramia stricta Brid., Vouvant, Vendée (France), March, 1938, J.C.

B. ithyphylla Brid., near New Galloway (73), Aug., 1885, J. McAndrew, com. W.Y.; roadside, Dolgelly (48), July, 1939, A.Tu. "This is *B. pomiformis* Hedw.; the cells of the upper part of the leaf are quite short," F.R.

Philonotis fontana Brid., var. *tomentella* (Mol.) Dix., cliff, Abisko (Tornean Lapland), Aug., 1907, H.N.D.

P. calcarea Schp., male plants, Frilford Bog (22), May, 1939, E.W.J. "In deep cushions with *Hypnum intermedium* and *Schoenus nigricans* in old peat cuttings (calcareous)," E.W.J.

Oreas Martiana Brid., rock ledges, Glocknerhaus, Gross Glockner, (Carinthia), Aug., 1904, W.E.N. et H.N.D., com. H.N.D. "This should be placed under *Dicranaceae*, cf. Handbook, p. 326," G.F.H.

Orthodontium gracile Schwaeg., rock ledge, Bolton woods (64), Sept., 1939, A.Th. "Dr. Watson says this shows some intermediate characters between the type and the var. *heterocarpum*," A.Th.; var. *heterocarpum* Watson, peaty soil in wood, Ebrington, near Hayden Bridge (67*), April, 1939, E.M.L. "Dr. Watson agrees," F.R.

Webera elongata Schwaeg., Yewdale, Coniston (69), April, 1939, A. Tu.

W. nutans Hedw., dwarf tufted form, Top of Dundee Law, Dundee (90), Sept., 1939, E.A.

W. annotina Schwaeg., on sandy beach at head of Loch Morlich, Glenmore Forest (96), July, 1938, E.W.J. "Yes, the cells of the exothecium are certainly collenchymatous," F.R.

W. Ludwigii Schp., Wells of Dee, Braeriach (92), 2,000 ft., June, 1911, A.Wils. "Because of the peculiar leaves of some of the flagelliform upper branches, this plant was submitted to Mr. Dixon, who commented: 'I should refer your *Webera* to *Ludwigii*, without attempting to put a varietal name to it; it is a species which responds to external conditions very readily, I think, and conditions of snow or water might easily produce this,'" F.R.; var. *latifolia* Schp., Beinn nan Eachan, Killin (88), July, 1937, E.C.W. "Yes, I think the colour, size and broadly ovate, large-celled leaves put this to var. *latifolia*," F.R.

W. carnea Schp., Beresford Dale (57), June, 1939, A.Th.

W. Tozeri Schp., ditch in lane, Tinsley Green (17), Feb., 1939, E.C.W.; Vouvant, Vendée (France), March, 1938, J.C.

Plagiobryum Zierii Lindb., Ingleborough (64), Aug., 1934, A.Wh.

Bryum Warneum Bland., wet sandy ground, Sands of Barry (90), Nov., 1939, U.D.

B. lacustre (Bland.) Brid., Bánhida (Hungary), Sept., 1939, A.B.

B. Duvalii Voit, in a spring in the Larig Ghru, Cairngorms (96), 2,600 ft., July, 1938, E.W.J.

B. pseudo-triquetrum Schwaeg., boggy ground, Sands of Barry (90), Aug., 1939, U.D.

B. pallescens Schleich., mortar of stone wall, Seaton, near Arbroath (90), July, 1939, U.D.

B. Donianum Grev., Vouvant, Vendée (France), March, 1938, J.C.

B. atropurpureum W. & M., sandy ground by stream, Zemtäl, Zillertal (Austria), Aug., 1937, L.B.C.T., det. J.B.D., com. L.B.C.T.

B. gemmiparum De Not., moist siliceous rocks, Restonica Valley, Corte (Corsica), March, 1939, P.W.M.R.

B. Muehlenbeckii B. & S., Glen Dubh, Inchnadamph (108), July, 1921, W.E.N.

B. argentum L., var. *lanatum* B. & S., pantile roof, Nottingham (56), June, 1939, L.B.C.T.

B. claviger Kaur., stones in stream, Maristuen (Norway), July, 1900, H.N.D.

Mnium hornum L., Fort William (97), May, 1939, P.S.

M. orthorrhynchum B. & S., on shady limestone rocks in woods, Bois des Gornées, Les Verrières, Jura (Switzerland), July, 1939, E.W.J.

M. riparium Mitt., by a stream near little saw mill, Cuckfield (13), June, 1917, W.E.N.

Cinclidium stygium Swartz, Loch Oich, near Fort William (97*), June, 1939, J.B.D. & E.A. "Dried form with slender innovations, growing in desiccated marsh," E.A.

Fontinalis antipyretica L., var. *cymbifolia* Nicholson, bed of the engine pool, Crofton, near Bedwyn (7), Sept., 1938, E.C.W. "A welcome gathering. In his account of East Wiltshire mosses (in Journ. Bot., 1918, p. 183), Mr. C. P. Hurst quotes Mr. W. E. Nicholson to the effect that the Crofton plant, though less robust than the original gathering of var. *cymbifolia*, comes well under the variety," F.R.

Cryphaea heteromalla Mohr, on elder, Montacute (6), Nov., 1939, W.W. "Very robust plants," F.R.; on elder stems in woods on steep chalk slope, Wynford Hanging Wood, Wynford Eagle (9), July, 1936, E.W.J.; Kingley Vale, Bowhill (13), April, 1939, E.C.W.

Neckera pumila Hedw., var. *Philippeana* Milde, beech trees near Strontian, Loch Sunart (97), June, 1939, E.M.L.

N. Besseri (Lob.) Jur., Héreg (Hungary), April, 1939, A.B.

Homalia trichomanoides B. & S., Castle Howard (62), Sept., 1856, Wm. Wilson, com. A.B.J. "In that 'prince of bryological books,' the *Bryologia Britannica*, Mr. Wilson offered sets of specimens at the rate of twenty shillings per hundred, and this is possibly one of them," G.F.H.

Pterygophyllum lucens Brid., Glen Nevis (97), May, 1939, P.S.

Pterogonium gracile Swartz, rocks by roadside, Coniston (69), April, 1939, A.Tu. ; Fusedale (69), June, 1934, A.Wils.

Habrodon Notarisii Schp., aspen trees, Finlarig, near Killin (88), July, 1939, J.R.L.

Myurella julacea B. & S., Csákberény (Hungary), April, 1936, A.B.

Leskea polycarpa Ehrh., Dailly (75), June, 1861, Wm. Wilson, com. A.B.J. ; New Galloway (73), July, 1907, J. McAndrew, com. W.Y.

Anomodon rostratus (Hedw.) Schp., Bakonybél (Hungary), Oct., 1937, A.B.

Leptodon Smithii Mohr, L'Hermenault, Vendée (France), March, 1938, J.C. ; Kostrena Sveta Lucija (Croatia), May, 1939, A.B.

Pterigynandrum filiforme Hedw., rock ledges at head of Canlochan Glen (90), July, 1939, E.C.W.

Heterocladium Macounii Best, Holford Combe (5), May, 1936, W.W. "Associated with *Plagiochila spinulosa* on vertical face of rock about a yard above the stream. *H. heteropterum*, as its name implies, is a variable moss and *H. Macounii* appears to be the ultimate expression of a series of variants. The colour is paler or yellower, the leaves more strongly falcato-secund with longer cells even at the apex. Judging by the habitat of these specimens, it grows on rather drier rocks than typical *H. heteropterum*, as the latter was growing on the rocks at or near the water level of the same stream. If a further character, e.g. the 2-3 papillate apical cell, be added to the diagnosis of *H. Macounii*, the Quantock plants may be excluded from the extreme form," W.W.

Pseudoleskea atrovirens B. & S. (= *P. incurvata* (Hedw.) Dix.), rocks, Canlochan Glen (90), July, 1939, E.C.W.

P. patens Limpr., rock ledges at head of Canlochan Glen (90), July, 1939, E.C.W.

Thuidium abietinum B. & S., heathland near Wretham Park (28), April, 1938, E.C.W. ; sandhills, Benone (I. 40), May, 1939, J.S.T.

T. hystricosum Mitt., Farley Mount (11), Oct., 1938, A.Wh.

T. Philiberti Limpr., L'Hermenault, Vendée (France), March, 1938, J.C.

Cylindrothecium concinnum Schp., sandhills, Balmakiel, Durness (108), July, 1939, E.C.W.

Myurium Hebridarum Schp., North Uist, Hebrides (110), Aug., 1902, W. West, com. H.N.D.

Orthothecium intricatum B. & S., Creag Aoil, near Fort William (97*), June, 1939, E.A.; rocks by the caves, Inchnadamph (108), July, 1939, E.C.W.

Brachythecium plicatum B. & S., moraine near Berlinerhütte, Tirol (Austria), 8,000 ft., Aug., 1937, L.B.C.T., det. J.B.D., com. L.B.C.T.

B. glareosum B. & S., Farthing Corner (15), March, 1903, J. Martin, com. W.Y.; Fenton Linns (72), June, 1889, C. Scott, com. W.Y.; limestone rocks, Creag Aoil, near Fort William (97*), June, 1939, E.M.L.; on a wall, Co. Sligo (I.28), June, 1939, J.S.T.

B. rivulare B. & S., Sligachan, Skye (104), May, 1939, P.S.

B. glaciale B. & S., rocks in Coire Leis, Ben Nevis (97), July, 1938, E.C.W.; moraine, Hornkees, Zillertal (Austria), 8,000 ft., Aug., 1937, L.B.C.T., det. J.B.D., com. L.B.C.T.

B. velutinum B. & S., Farthing Corner (15), July, 1903, J. Martin, com. W.Y.

B. caespitosum Dixon, on a wall in a lane near Stopham (13), Feb., 1939, E.C.W.; tree by the Adur, Henfield (13), July, 1939, E.C.W.

B. illecebrum De Not., sea cliffs near Newhaven (14), Feb., 1939, E.C.W.

B. purum Dixon, near Seaford (14), March, 1939, P.S.

Hyocomium flagellare B. & S., wet sandstone rocks by stream, Miel Valley, Algeciras (Spain), April, 1936, P.W.M.R.

Eurhynchium crassinervium B. & S., Trumley Copse, Bowhill (13), April, 1939, E.C.W.; on oolite stones in woods, Foston's Ash, Cranham (33), March, 1936, E.W.J.; Muckcross, near Killarney (I.2), Nov. and Dec., 1828, Wm. Wilson, com. A.B.J.

E. praelongum Hobk. [= *E. Stokesii* (C.M.) B. & S.], near Seaford (14), March, 1939, P.S.

E. Swartzii Hobk. [= *E. praelongum* (Hedw.) B. & S.], Penzance (1), Nov., 1863, Wm. Wilson, com. A.B.J.; St. Catherine's Hill (11), Feb., 1938, A.Wh.

E. tenellum Milde, Laig Bay, Isle of Eigg (104), June, 1939, E.M.L.

E. circinatum B. & S., Bowhill, near Chichester (13*), April, 1939, E.C.W. ; Meja (Croatia), May, 1939, A.B.

E. striatulum B. & S., Leigh Woods, Bristol (6), Nov., 1860, Wm. Wilson, com. A.B.J.

Plagiothecium Muellerianum Schp., mountain rocks near Loch Brandy (90*), Aug., 1939, U.D.

P. pulchellum B. & S., wood by Loch Assynt, Inchnadamp (108), July, 1939, J.B.D.

P. Muehlenbeckii B. & S., about tree roots near Upper Falls, Glen Nevis (97*), 900 ft., June, 1939, J.R.L.

P. denticulatum B. & S., near Edinburgh (83), Aug., 1907, J. McAndrew, com W.Y. ; var. *majus* Boul., Puck's Glen, Argyll (98), Aug., 1939, J.R.L.

Amblystegium compactum Aust., damp calcareous rocks, sea cliffs, Berwick-on-Tweed (68), Sept., 1939, J.B.D. ; limestone rock, Smoo Cave, Durness (108), July, 1939, E.C.W.

A. serpens B. & S., on clay ground, St. Helens, Isle of Wight (10), Sept., 1936, A.M.S.

A. varium Lindb., rotting log on moist ground, Kenchester, near Hereford (36), April, 1938, C.H.B. ; rotting wood in swampy place, Bodenham (36), April, 1938, C.H.B. "Both are correct, but there is some admixture of *Hypnum riparium* which may prove confusing," J.B.D. ; on rotting log, Rescobie Loch (90), May, 1939, U.D.

Hypnum riparium L., var. *longifolium* Schp., by the Medway, near Leigh (16), June, 1939, E.C.W. ; on willow, Benone (I.40), May, 1939, J.S.T.

H. elodes Spruce, amongst *Juncus obtusiflorus* and *Schoenus nigricans* on the edge of shallow pool in calcareous bog, Parsonage Moor, Cothill (22*), Nov., 1939, E.W.J. ; sandhills, Magilligan (I.40), Sept., 1939, J.D.H.

H. Stellatum Schreb., var. *protensum* Roehl, Downhill (I.40), Sept., 1939, J.D.H.

H. Halleri Linn. fil., Pietros (Hungary), July, 1939, A.B.

H. Sendtneri Schp., Freshfield (59), Sept., 1933, W.G.T. ; Gullane Links (82), July, 1907, J. McAndrew, com. W.Y. ; Ballyliffen, Inishowen (I.34), Aug., 1939, J.D.H.

H. Wilsoni Schp., Ross Links (68), June, 1939, J.B.D.

H. fluitans L., var. *gracile* Boul., Knockewart Loch (75), May, 1939, J.R.L.

H. exannulatum Guemb., An Cruachan, Isle of Eigg (104*), June, 1939, E.M.L.

H. uncinatum Hedw., Ingleton glens (64), Aug., 1934, A.Wh.

H. vernicosum Lindb., Knockewart Loch (75), May, 1939, J.R.L.

H. intermedium Lindb., Thelnetham Fen (26), June, 1938, E.C.W.

H. cupressiforme L., var. *resupinatum* Schp., near Clachtoll, Stoer (108), July, 1939, E.C.W.; var. *tectorum* Brid., Creag Aoil, near Fort William (97*), June, 1939, E.A.

H. Vaucheri Lesq., Abisko (Tornean Lapland), Aug., 1907, W.E.N. et H.N.D., com. H.N.D.

H. imponens Hedw., Matley Bog, New Forest (11), April, 1930, W.E.N.; Balerno (83), July, 1912, J. McAndrew, com. W.Y.

H. Patientiae Lindb., Glentogher, Inishowen (134), Aug., 1939, J.D.H.

H. revolutum Lindb., Riffelalp, near Zermatt (Switzerland), July, 1906, W.E.N.

H. hamulosum B. & S., Meall nan Tarmachan (88), July, 1939, J.R.L.; rocks near the caves, Inchnadamph (108), July, 1939, E.C.W.

H. callichroum Brid., Naddle Forest (69), June, 1901, A. Wils.

H. procerrimum Mol., Tête du Moine, Les Diablerêts, Vaud, (Switzerland), June, 1901, W.E.N.

H. molluscum Hedw., var. *fastigiatum* Bosw., limestone rocks, Creag Aoil, near Fort William (97*), June, 1939, J.B.D.; limestone rocks, Inchnadamph (108), July, 1939, E.C.W.

H. turgescens Schp., Leiterthal, Heiligenblut, Carinthia (Austria), Aug., 1904, H.N.D. et W.E.N., com. W.E.N.

H. cordifolium Hedw., Ben More, South Uist (110*), Aug., 1939, K.B. Blackburn, det. and com. E.M.L.

H. giganteum Schp., An Cruachan, Isle of Eigg (104*), June, 1939, E.M.L.

H. sarmentosum Wahl., Foel Grach, Carnedd Llewelyn (49), July, 1928, A. Wils.

Hylocomium umbratum B. & S., Cleadale, Isle of Eigg (104*), June, 1939, E.M.L.

H. pyrenaicum Lindb., Aonach Beag, Glen Nevis (97), July, 1938, E.C.W.

H. brevirostre B. & S., Glen Nevis (97), May, 1939, P.S.

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

Extropothecium venustulum Besch., Ile Nuka-Hiva, Eaiohao (Iles Marquises), July, 1939, Capt. Dr. de Curton, com. J.C.
 "This is the only non-European moss sent in," E.C.W.

Cynodontium virens Schp., var. *serratum* B. & S., Khillanmarg, above Julmarg (North-West Himalaya), 10,000 ft., July, 1926, R.R. Stewart, com. H.N.D.

HEPATICS European (British and Continental).

Riccia Bischoffii Hub., Deux Sevres (France), April, 1938, J.C.

R. ciliata Hoffm., Okany (Hungary), Mar., 1936, A.B.

R. Beyrichiana Hampe, Vendée (France), April, 1938, J.C.

R. nigrella D.C., Vendée (France), April, 1938, J.C.

R. fluitans L., Bokod (Hungary), June, 1938, A.B.

R. Frostii Austin, Eszek (Slavonia), Aug., 1917, leg. z. Zsak, com. A.B.

Ricciocarpus natans Corda, Thornton-le-Moors, Cheshire (58), Aug., 1939, W.G.T. ; Kiskoros (Hungary), Sept., 1933, A.B.

Sauteria Alpina Nees, Pietros (Hungary), July, 1939, A.B.

Reboulia hemisphaerica (L.) Raddi, Orhegyalja (Hungary), Aug., 1937, A.B.

Conocephalum conicum (L.) Dum., on wet rock ledges in great luxuriance on the cliffs of Cwm Du, Afon Senni, Brecon (42), April, 1937, E.W.J.

Metzgeria conjugata Lindb., near Killin (88), July, 1927, W.Y.

M. pubescens (Schrank) Raddi, on vertical face of dry limestone cliff in woods at about 1,050 m. alt., Mouthe, Doubs (France), July, 1939, E.W.J.

Moerckia Blyttii (Moerck) Brockm., bare ground near late snow patch, 3,400 ft., Cairngorm, Easternness (96), June, 1938, P.W.R. ; Cairngorm (94), July, 1913, W.Y.

Pellia endiviaefolia Dicks. Lindb. (= *P. Fabbrianiana* Raddi), Teplicska (Hungary), July, 1911, leg. O. Lengyel, com. A.B.

Blasia pusilla L., on damp sandy flats among *Erica tetralix*, at head of lake, Loch Morlich, Glenmore Forest, Inverness (96), July, 1938, E.W.J.

Fossombronia pusilla (L.) Dum., Vendée (France), Mar., 1938, J.C.

F. Wondraczeki (Corda) Dum., (*F. cristata* Lindb.), Vendée (France), Mar., 1938, J.C.

F. Dumortieri (Hüb. et Genth.) Lindb., Loch a Eilan (96), July, 1913, W.Y. "Probably this species, but the material is very dried up and I could find no spores." F.E.M.

Gymnomitrium concinatum (Lightf.) Corda, Hoverla (Hungary), July, 1939, A.B.

G. varians (Lindb.) Schiffn., Cairngorm (94), July, 1913, W.Y.

G. alpinum (Gottsche) Schiffn., Ben Macdhui (92), July, 1913, W.Y.

Marsupella Boeckii (Aust.) Lindb. (= *M. Stableri* Spruce), on rocks by the Red Burn, Ben Nevis (97), July, 1939, H.H.K. The following note on *Marsupella Boeckii* has been sent by Mr. H. H. Knight. "I have for a long time thought that the plant named *Marsupella Stableri* in the handbook should be *M. Boeckii*. I think probably Macvicar was influenced by Stabler's friends as all three hepatics that is this plant, *Plagiochila Stableri* and *Anthoceros Stableri* have proved of no value.

The argument from geographical distribution given by Macvicar is a strong one ; but I have never seen a Norwegian specimen of the plant.

Macvicar when he first found this plant on Ben Nevis gave it the name *Marsupella Boeckii*. Afterwards in the Handbook he altered it to *Marsupella Stableri*. But he remarks there, 'It is still, I consider, a matter of much doubt whether they are distinct species, and the geographical distribution of the two is anomalous if they are so, as all our other alpine species which reach a high altitude are found in Norway, and almost all the alpine species which occur in Western Norway are found in Britian ' ; Ben Nevis, Inverness (97), June, 1939, J.B.D.

M. Pearsoni Schiffn., Craig Mohr (88), July, 1929, W.Y.

M. aquatica (Lindenb.) Schiffn., Puck's Glen, Argyll (98), Aug., 1939, J.R.L. "Not very typical, but seems better here than *M. emarginata*." F.E.M.

Alicularia compressa (Hook.) Nees, var *gigantea* Macv., Bowfell, Westmorland (69), 1908, leg. Wheldon & Wilson, com. W.G.T.

A. Breidleri Limpr., on bare soil in dry situation, stony slope near top of Cairngorm, North aspect, alt. 3,750 ft. In extensive patches (96), July, 1938, E.W.J.

Gongylanthus ericetorum (Raddi) Nees, Deux Sevres (France), Apr., 1938, J.C. ; bank in maquis, Piana (Corsica), Apr., 1939, P.W.R.

Aplozia riparia (Tayl.) Dum., in small bog by stream at Cilfaenor, Tretower, Brecon (42), Apr., 1937, E.W.J.

Jamesoniella autumnalis (D.C.) Steph., Rowardennan, Loch Lomond (86), May, 1906, leg. J. McAndrew, com. W.Y.

J. Carringtoni (Balf.) Schiffn., Ben Thurian, Inchnadamph, Sutherland (108), July, 1939, H.H.K. and J.B.D.

Lophozia Muelleri (Nees) Dum., Calcareous bogs, Glen Avon, near Inchrory (94), with *Aplozia* specs. (dioicous), July, 1938, E.W.J. ; Jolesz (Hungary), May, 1939, A.B.

L. ventricosa (Dicks.) Dum., Cserepvaralja (Hungary), June, 1933, A.B.

L. quinquedentata (Huds.) Cogn., Csevpvaralja (Hungary), June, 1933, A.B. "An unsatisfactory plant. It might be a reduced form of any of the *Barbilophoziae*, but I am inclined to favour *L. barbata* or *L. Floerkii*, probably the latter." F.E.M. "I agree with you in not thinking that this can be a reduced form of *L. quinquedentata*, which hardly ever loses trace of its singularly unsymmetrical leaves. I am inclined to think that it must be a form of *L. barbata* (Schmid.) Dum. In the leaves which I examined I could not find any trace of the basal cilia which are generally so characteristic of *L. Floerkii*, but no doubt even these are subject to reduction in simplified forms," W.E.N.

L. lycopodioides (Wallr., Cogn., Otatrafured (Hungary) Aug., 1938, A.B.

L. Floerkii (Web. et Mohr) Schiffn., on rock in old burial ground, Fort William, Inverness (97), July, 1939, E.A.

L. barbata (Schmid.) Dum., Vargesztes (Hungary), Apr., 1935, A.B.

L. Kunzeana (Hüb.) Evans, summit of Schiehallion, Perthshire (88), July, 1936, H.H.K. and J.B.D.

Sphenolobus Hellerianus (Nees) Steph., on oak trunk, Seatoller, Cumberland (70), Sept., 1933, W.W.

S. exsectus (Schmid.) Steph., on rotting *Abies* stump in deep shade, Forêt du Band d'Eteval, St. Die, Vosges (France), July, 1939, E.W.J.

S. exsectiformis (Breidl.) Steph., in thick carpet on side of shady moss-covered granite boulder in woods, Bois du Capucin, Le Mont Dore, Puy du Dome (France), Aug., 1939, E.W.J.

Anastrepta orcadensis (Hook.) Schiffn., wood by Loch Assynt, Sutherland (108), July, 1939, H.H.K.; also same place, J.B.D.; amongst *Hylocomium splendens*, *Vaccinia*, etc., on rocky dry ledges, ridge near Coire t'Sneachda, Cairngorms (96), July, 1938, E.W.J.; Creag Aoil, near Fort William, Inverness (97), June, 1939, E.A.

Plagiochila asplenoides (L.) Dum. var. *major* Nees forma *subintegerrima* Schiffn., Puck's Glen, Argyll (98), Aug., 1939, J.R.L.

P. spinulosa (Dicks.) Dum., Glen Nevis, W. Inverness (97), May, 1939, P.S.

P. punctata Tayl., Stob Ban, Glen Nevis, W. Inverness (97), July, 1938, E.C.W.; wet gneiss rocks, Slievemore, Achill Is., W. Mayo (I.27), Aug., 1933, P.W.R.

Pedinophyllum interruptum (Nees) Pears., Zanyka (Hungary), Aug., 1937, A.B.

Leptoscyphus Taylori (Hook.) Mitt., (*Mylia Taylori* Gray), Hoverla (Hungary), July, 1939, A.B.

L. cuneifolius (Hook.) Mitt. (*Clasmatocolea cuneifolia* Spruce), I. of Mull (103), July, 1932, W.Y.

Lophocolea bidentata (L.) Dum., Vertessomlo (Hungary), April, 1935, A.B.

L. minor (Nees) (= *L. heterophylla* var. *minor* Douin), Vertessomlo (Hungary), April-May, 1935, and 1938, A.B.

L. heterophylla (Schrad.) Dum., Obat (Hungary), May, 1938, A.B.

Chiloscyphus pallescens (Ehrh.) Dum., Barna (Hungary), June, 1936, A.B.

Saccogyna viticulosa (Sm.) Dum., Fort William, W. Inverness (97), May, 1939, P.S.

Cephalozia bicuspidata (L.) Dum., Alsogalla (Hungary), June, 1935, A.B. "This, I think, is a form of *Lophozia badensis* (Gottsche) Schiffn.," F.E.M. "A rather unsatisfactory specimen of anything. A large percentage of it is earth and a considerable percentage of it is some kind or kinds of moss; the few remaining stems appear to be a form of *Lophozia badensis* as you suggest. There is no *Cephalozia* in the packet," W.E.N.

Nowellia curvifolia (Dicks.) Mitt. (*Cephalozia curvifolia* Dum.), Zanyka (Hungary), Aug., 1937, A.B.

Cephaloziella Starkii (Funck) Schiffn., Alston, Cumberland (70), May, 1936, det. H.H.K., com. E.C.W.

C. Massalongi (Spruce) K. Müll., Cupriforous rocks, Carbis Bay, Cornwall (1), Nov., 1939, W.E.N.

C. Nicholsoni Douin et Schiffn., wall by a path from Carbis Bay to St. Ives, West Cornwall (1), Nov., 1939, W.E.N.

C. Turneri (Hook.) K. Müll., bank, Piana (Corsica), April, 1939, P.W.G.; Forêt de Vouvant, Vendée (France), Nov., 1938, J.C.

Pleuroclada albescens (Hook.) Spruce, Lomnici-esucs (Hungary), Aug., 1938, A.B.

Odontoschisma denudatum (Nees) Dum., on damp peaty ground among *Erica tetralix*, slopes above Matley Bog, New Forest, Hants. (11), Aug., 1939, E.W.J.

Kantia Neesiana (Mass. et Carest), K. Müll. (= *Calypogeia Neesiana* (Carest. et Massal.) K. Müll.), Otatrafured (Hungary), Aug., 1938, A.B.

C. fissa (L.) Raddi (*Kantia Sprengelii* Pears.), hillside above Fort William, Inverness (97), June, 1939, E.A.

Bazzania tricenata (Wahl.) Pears., Ben Thurian, Inchnadamph, Sutherland (108), July, 1939, J.B.D.; Ben Arthur, near Arrochar, Argyll (98), May, 1938, E.C.W.; rocks, Ben Nevis, alt. 800 ft., (97), June, 1939, J.R.L.; New Galloway (73), May, 1893, leg. J. McAndrew, com. W.Y.

B. Pearsoni (Steph.) Pears., Stob Ban, Mamore Forest, West Inverness (97), July, 1938, E.C.W.

Lepidozia pinnata (Hook.) Dum., wood by Loch Assynt, Inchnadamph, Sutherland (108), July, 1939, H.H.K. and J.B.D.

L. Pearsoni Spruce, Glen Nevis, West Inverness (97), May, 1939, P.S.

L. setacea (Web.) Mitt., Lough Bray, Co. Wicklow (I.20), D.B.B.

Blepharostoma trichophyllum (L.) Dum., Osszatelep (Hungary), July, 1934, A.B.

Chandonanthus setiformis (Ehrh.) Lindb., in deep dry crevices amongst boulders, N. slope of Cairngorms (96), 3,000 ft., June, 1938, E.W.J.

Anthelia Juratzkana (Limpr.) Trevis, Otto (Hungary), Aug., 1938, A.B.

Herberta adunca (Dicks.) Gray, Ben Thurian, near Inchnadamph, Sutherland (108), July, 1921, H.H.K. and W.E.N.; same locality, July, 1939, J.B.D. and H.H.K.

H. Hutchinsiae (Gottsche) Evans, Glen Nevis, West Inverness (97), May, 1939, P.S.

Mastigophora Woodsii (Hook.) Nees, Glen Nevis, West Inverness (97), May, 1939, P.S.

Ptilidium ciliare (L.) Hampe, forma *inundatum* Schiffn., Pozyzewska (Hungary), July, 1939, A.B.

P. pulcherrimum (Web.) Hampe, Rozsnyo (Hungary), May, 1939, A.B.

Diplophyllum albicans (L.) Dum., Rozsnyo (Hungary), May, 1939, A.B. ; Glen Roy, Spean Bridge, Inverness (97), June, 1939, E.A.

D. taxifolium (Wahlenb.) Dum., Turkul, near Worochta (Poland), July, 1939, A.B.

Scapania aequiloba (Schwaegr.) Dum., Vorosklastrom (Hungary), July, 1933, A.B.

S. gracilis (Lindb.) Kaal., Mile Dorcha, Loch Arkaig, West Inverness (97), July, 1938, E.C.W. ; Glenfinnan Woods, near Fort William, Inverness (97), June, 1939, E.A.

S. aspera Bernet, Creag Aoil, near Fort William, Inverness (97), June, 1939, E.A. ; Creinch, Loch Lomond (99), June, 1939, J.R.L. ; Lic (Croatia), May, 1939, A.B.

S. nimbosea Tayl., Braeriach (92), July, 1913, W.Y.

S. ornithopodioides (With.) Pears., Glen Nevis, West Inverness (97), May, 1939, P.S.

S. undulata (L.) Dum., Hoverla (Hungary), July, 1939, A.B.

S. irrigua (Nees) Dum., Rainford Junction, South Lancs. (59), July, 1939, W.G.T.

S. curta (Mart.) Dum., Glen Beag (89), July, 1930, W.Y.

Radula complanata (L.) Dum., Oroszlany (Hungary), May, 1936, A.B. ; Csakvar (Hungary), March, 1936, A.B.

R. Lindbergiana Gottsche, Pietros and Breskul (Hungary), July, 1939, A.B.

Pleurozia purpurea (Lightf.) Lindb., Ben Thurian, Inchnadamph, W. Sutherland (108), July, 1939, J.B.D. and H.H.K. ; Glen Nevis, West Inverness (97), May, 1939, P.S.

Madotheca laevigata (Schrad.) Dum., on limestone rocks in woods near Tintern, West Glos. (34), Mar., 1937, E.W.J. "Tending in parts to var. *obscura* Nees," F.E.M. ; Voloc (Hungary), Aug., 1937, A.B. ; "A most interesting plant. It is more spinous-dentate than the var. *killarniensis*, under which I think it should go," F.E.M. "As you say, a very interesting plant and though a little variable, in all cases it is much more spinous-ciliate than any var. *killarniensis* which I have seen. I have five specimens in my herbarium

(one from the late Mr. Pearson), and another in Schiffner Hep. Eur. Ex., and in none of these are the leaves anything so uniformly spinous-ciliate as they are in Dr. Boros's plant. The only thing at all approaching it is the plate in the Journal of Botany for 1906 when Mr. Pearson described the var. Some of these specimens may be slightly more robust than the present plant. I have always had some doubt as to accepting the var. *killarniensis*, but if it be accepted, this plant must come under it as a plus form," W.E.N.

M. Thuja (Dicks.) Dum., limestone cliffs, Cleadale, Isle of Eigg (104), June, 1939, C.V.B.M. and E.M.L.

Cololejeunea calcarea (Lib.) Schiffn., Bakonyosglop (Hungary), March, 1938, A.B.

C. Rossettiana (Massal.) Schiffn., Bakonybel (Hungary), Sept., 1938, A.B.

Lejeunea cavifolia (Ehrh.) Lindb., Forêt de Vouvant, Vendée (France), Nov., 1938, J.C.

L. patens Lindb., wood by Loch Long, Arrochar, Dumbarton (99), May, 1938, E.C.W.

Marchesinia Mackaii (Hook.) Gray, limestone cliffs, Cleadale, Isle of Eigg (104), June, 1939, C.V.B.M. and E.M.L. ; Muckcross, Killarney (I.2), Aug., 1935, D.B.B.

Jubula Hutchinsiae (Hook.) Dum., on rocks in gorge, Lydford, Devon (3), Sept., 1935, W.W. ; on rocks near waterfall, Roadwater, Somerset (5), June, 1936, W.W.

Frullania germana Tayl., near Sligachan, Isle of Skye (104), May, 1939, P.S.

F. Tamarisci (L.) Dum., var. *cornubica* Carr., rocks near Bonithon, West Cornwall (1), June, 1939, W.E.N.

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

Anthoceros laevis L., on $\pm$ vertical face of wet sandstone, Cushuish, near Taunton, Somerset (5), Dec., 1939, W.W.

EXTRA EUROPEAN.

None sent in.

CENSUS CATALOGUES.

List of additional V.C. Records since the issue of the
Report for 1938.

MOSSES.

Andreaea Rothii Web. & Mohr., near Achnashellach (105), June, 1939, U.D. ; Hoy, Orkney, March, 1939, J. Sinclair.

Catharinea undulata var. *minor* W. & M., Coastley Dene, near Hexham (67), March, 1939, E.M.L.

Oligotrichum hercynicum Lam., Graig-y-Llyn (41), May, 1938, L. J. Anders.

Polytrichum strictum Banks, Ben Arthur (98), May, 1938, E.C.W.

P. gracile Dicks., Graig-y-Llyn (41), May, 1938, L. J. Anders ; near Mapledurham (23), Aug., 1939, A.D.B.

Diphyscium foliosum Mohr., on Cairngorm (96), June, 1938, E.W.J.

Ditrichum homomallum Hampe., Loch Snizort, Skye (104), June, 1938, E.M.L.

D. zonatum Limpr., summit of Braeriach and near Cairn an Lochan (96), June, 1938, E.W.J.

Swartzia montana Lindb., Glen Avon, near Inchrory (94), July, 1938, E.W.J.

S. inclinata Ehrh., near Inchrory, Glen Avon (94), July, 1938, E.W.J.

Seligeria pusilla B. & S., Sulham Woods (22), Nov., 1937, A.D.B.

S. recurvata B. & S., near Achnashellach (105), June, 1939, U.D.

Pleuroidium axillare Lindb., Toomebridge, Co. Derry (140), July, 1939, W.R.M.

Dichodontium pellucidum var. *compactum* Schp., Hoy, Orkney (111), March, 1939, J. Sinclair.

Dicranella heteromalla Schp., Loch Snizort, Skye (104), June, 1938, E.M.L.

Campylopus atrovirens De Not., near Crag Lough, Bardon Mill, (67), July, 1939, E.M.L.

Dicranum Bonjeani var. *rugifolium* Bosw., Crookham Common (22) Aug., 1939, A.D.B.

D. scoparium var. *orthophyllum* Brid., Hunstanton (28), Aug., 1938, A.D.B.

D. majus Turn., near Taffs Well (41), Nov., 1938, L. J. Anders.

D. Scottianum Turn., Glentocher Inishowen (I.34), Aug., 1939, J.D.H.

Fissidens decipiens De Not., Devil's Glen (I.20), July, 1939, J.S.T.

Grimmia apocarpa var. *rivularis* W. & M., near Achnashellach (105), June, 1939, U.D.

G. Hartmani Schp., Devil's Glen, Ashford (I.20), July, 1939, D.B.B.

G. patens B. & S., Isle of Eigg (104), June, 1939, E.M.L.

G. atrata Mielich., Dinas Mawddwy (48), Sept., 1936, E.W.J.

Hedwigia ciliata var. *viridis* B. & S., Buttermere (70), June, 1938, A.W.

Phascum curvicolle Ehrh., wall tops at Cumnor (22), Nov., 1938, and wall tops at Threep (23), Jan., 1939, E.W.J.

Tortula ruraliformis Dixon, Roanhead near Barrow-in-Furness (69), Aug., 1938, A.W.; Isle of Muck (104), Nov., 1938, Dr. K. Blackburn, per E.M.L.

Barbula topheacea Mitt., Isle of Muck (104), Nov., 1938, Dr. K. Blackburn, per E.M.L.

Weisia microstoma B. & S., Eigg (104), June, 1939, E.M.L.

W. tenuis C.M., Tintern (35), E.W.J.

W. verticillata Brid., Barra (110), July, 1939, Dr. K. B. Blackburn, per E.M.L.

Trichostomum crispulum Bruch., Isle of Muck (104), Nov., 1938, Dr. K. Blackburn, per E.M.L.

T. mutabile var. *cophocarpum* Schp., Iona (103), July, 1938, L.B.C.T.

T. tortuosum Dixon, Iona (103), July, 1938, L.B.C.T.; Devil's Glen (I.20), Aug., 1939, J.S.T.

Pleurochaete squarrosa Lindb., King's Forest, near Thetford (26), June, 1938, E.W.J.

Cinclidotus fontmaloides P. Beauv., Isle of Eigg (104), June, 1939, E.M.L.; Sandwich, Orkney (111), May, 1939, J. Sinclair.

Zygodon conoideus Hook. & Tayl., Portree, Skye (104), June, 1939, U.D.; near Achnashellach (105), June, 1939, U.D.

Ulotia crispa Brid., Hoy, Orkney (111), March, 1939, J. Sinclair; var. *intermedia* Braithw., Hoy, Orkney (111), March, 1939, J. Sinclair.

Orthotrichum leiocarpum B. & S., Skye (104), June, 1939, U.D.

O. affine Schrad., near Achnashellach (105), June, 1939, U.D.
O. pulchellum Smith, Doonally river (I.28), June, 1939, J.S.T. ; White Horse Hill (22), E.W.J.

Splachnum ampullaceum L., Plockton, near Kyle (105), June, 1938, E.M.L.

Aulacomnium turgidum Schwaeg., Isle of Eigg (104), Aug., 1938, Dr. G. H. Harrison, per E.M.L.

A. palustre Schwaeg., Plockton, near Kyle (105), June, 1938, E.M.L.

Orthodontium gracile var. *heterocarpum* Watson, Prestwick Carr (66), May, 1939, Dr. J. H. Harrison, per E.M.L. ; near Elrlington, Haydon Bridge (67), E.M.L.

Webera cruda Schwaeg., near Achnashellach (105), June, 1939, U.D.

W. nutans var. *longiseta* B. & S., Fortherley Moss, Slaley (67), Dr. K. Blackburn, per E.M.L.

W. carnea Schp., Iona (103), July, 1938, L.B.C.T.

Bryum pendulum Schp., near Achnashellach (105), June, 1939, U.D.

B. pallens Sw., Loch Snizort, Skye (104), June, 1938, E.M.L.

B. pseudo-triquetrum Schwaeg., marshes at Marcham (22), June, 1936, E.W.J.

*B. caespiticiu*m L., Loch Snizort, Skye (104), June, 1938, E.M.L.

B. atropurpureum var. *gracilentum* Tayl., Sands of Barry (90), Feb., 1939, U.D.

B. murale Wils., near Achnashellach (105), June, 1939, U.D.

B. argenteum var. *majus* B. & S., Walls of Reservoir, Walthamstow (18), Oct., 1939, J.H.G.P.

B. argenteum var. *lanatum* B. & S., Nottingham (56), Aug., 1939, L.B.C.T.

Mnium affine var. *elatum* B. & S., marshes at Cothill (22), 1936, E.W.J.

M. subglobosum B. & S., Hindhead (17), April, 1938, E.C.W.

Cryphaea heteromalla Mohr, near Portree, Skye (104), June, 1939, U.D.

Neckera crispa Hedw., Devil's Glen (I.20), July, 1938, D.B.B. ; Hoy, Orkney (111), March, 1939, J. Sinclair.

Heterocladium heteropterum var. *fallax* Milde, Wynford Eagle, Dorset (9), July, 1936, E.W.J.

Thuidium delicatulum Mitt., Tullach Bay, Inishowen (I.34), Aug., 1939, J.D.H.

- T. Philiberti* Limpr., Aonach Beag (97), July, 1938, E.C.W.
- Pylaisia polyantha* B. & S., hazel hedges near Ironbridge and Much Wenlock (40), April, 1939, F.E.M.
- Orthothecium rufescens* B. & S., Hoy, Orkney (111), March, 1939, J. Sinclair.
- Brachythecium plicatum* B. & S., Caenlochan, Glen Isla (90), July, 1939, U.D.
- B. albicans* B. & S., Pabbay, Barra (110), Aug., 1939, Dr. K. B. Blackburn, per E.M.L.
- B. caespitosum* Dixon, Wolvercote (23), by the river, Brockenhurst (11), July, 1936, E.W.J.
- Hyocomium flagellare* B. & S., wood near Mawlehurst (16), Oct., 1939, P.W.R.
- Eurhynchium Teesdalei* Schp., woods near Careg Cennen Castle (44), April, 1937, E.W.J.
- E. striatum* B. & S., Rhum (104), Aug., 1938, Dr. K. Blackburn, per E.M.L.
- E. rusciforme* var. *alopecuroides* Brid., River Barle, Simonsbath (5), June, 1938, L. J. Anders.
- E. murale* Milde, Reed Churchyard (20), 1932, E.W.J.
- Plagiothecium Mullerianum* Schp., Glen Clova (90), April, 1939, U.D.
- P. piliferum* B. & S., Head of Caenlochan Glen (90), July, 1939, E.C.W.
- P. pulchellum* var. *nitidulum* Husn., Twll Dhu, Ogwen (49), Aug., 1912, J.B.D.
- Amblystegium confervoides* B. & S., woods, Tintern (35), April, 1937, E.W.J.
- A. serpens* B. & S., near Achnashellach (105), June, 1939, U.D.
- A. Juratzkanum* Schp., Scratta Wood, Notts. (56), March, 1939, A.Th. ; by lake, Duns Dick (90), April, 1939, U.D.
- A. Kochii* B. & S., Morfa Bychan, near Criccieth (49), Nov., 1915, D. A. Jones, per E.C.W.
- A. varium* Lindb., Rescobie Loch (90), May, 1939, U.D.
- A. fluviale* B. & S., Golden Falls, Hollywood (I.20), May, 1939, J.S.T.
- Hypnum riparium* var. *longifolium* Schp., St. Nicholas (41), May, 1938, L. J. Anders ; Benone, Co. Derry (I.40), May, 1939, J.S.T.
- H. elodes* Spruce, marshes at Frilford (22), April, 1939, and at Cothill (22), 1936, E.W.J.

H. chrysophyllum var. *erectum* Bagnall, Sandwich, Orkney (111), May, 1939, J. Sinclair.

H. Sendtneri Schp., Ballyliffin (I. 34), Aug., 1939, D.D.H.

H. Wilsoni Schp., by Loch Morlich (96), July, 1938, E.W.J.

H. fluitans L., Lighthouse Island, Hyskeir (104), March, 1939, Dr. K. Blackburn, per E.M.L.

H. exannulatum Gümbl., Shiel Bridge, Loch Duich (105), June, 1938, E.M.L. ; Isle of Eigg (104), June, 1939, E.M.L. ; Crookham Common (22), July, 1938, Miss F. M. Caffyn, per A.D.B.

H. vernicosum Lindb., S. Uist (110), Aug., 1939, Dr. K. B. Blackburn, per E.M.L.

H. intermedium Lindb., marshes at Cotham and Frilford (22), May, 1939, E.W.J.

H. commutatum Hedw., Skye (104), June, 1939, U.D.

H. falcatum Brid., Iona (103), July, 1938, L.B.C.T. ; near Achnashellach (105), June, 1939, U.D. ; Heaval, Barra (110), Aug., 1939, Dr. K. B. Blackburn, per E.M.L.

H. cupressiforme var. *resupinatum* Schp., Isle of Eigg (104), June, 1939, E.M.L. ; var. *filiforme* Brid., Skye (104), June, 1939, U.D. ; var. *ericetorum* B. & S., Mortimer Common (12), July, 1939, A.D.B. ; var. *tectorum* Brid., Eigg (104), June, 1939, E.M.L.

H. imponens Hedw., Studland Heath (9), E.W.J.

H. molluscum Hedw., Wood Walton (31), 1932, E.W.J. ; var. *condensatum* Schp., Aonach Beag (97), July, 1938, E.C.W.

H. eugyrium Schp., Devil's Glen (I.20), July, 1939, J.S.T.

H. stramineum Dicks., Plockton (105), June, 1938, E.M.L. ; Isle of Eigg (104), Aug., 1938, Dr. G. H. Harrison, per E.M.L.

H. cordifolium Hedw., S. Uist (110), Aug., 1939, Dr. K. B. Blackburn, per E.M.L.

H. giganteum Schp., marshes at Frilford (22), May, 1939, E.W.J. ; Isle of Eigg (104), June, 1939, E.M.L.

Hylocomium umbratum B. & S., Isle of Eigg (104), June, 1939, E.M.L.

HEPATICS.

List of additional V.C. records since the issue of the
Report for 1938.

- Riccia glauca* L., Appleton Common (22), 1935, E.W.J.
R. sorocarpa Bisch., Tubney Wood, etc. (22), 1939, E.W.J.
Preissia quadrata (Scop.) Nees, Birsay, Orkney (111),
June, 1939, J. Sinclair, per J.B.D.
Aneura sinuata (Dicks.) Dum., Tubney Wood, etc. (22),
E.W.J.
Moerckia Flotowiana (Nees) Schiffn., Portstewart (I.40),
W.R.M.
Blasia pusilla L., Tintern (35), June, 1935, E.W.J.
Fossombronia pusilla (L.) Dum., Bagley Wood (22), E.W.J.
F. Crozalsii Corb., Tubney Wood (22), Sept., 1938, E.W.J.
Haplomitrium Hookeri (Sm.) Nees, Culbin Sands (95),
July, 1938, Dr. W. Walton, teste P.W.M. and E.W.J.
Marsupella Funckii (Web. et Mohr.) Dum., Houghton
Wood (9), July, 1936, E.W.J.
M. emarginata (Ehrh.) Dum., Tintern, etc. (35), June,
1935, E.W.J.
Eucalyx hyalinus (Lyell) Breidl., Honeycomb Wood near
Sherborne (9), E.W.J.
Aplozia crenulata (Sm.) Dum., var *gracillima* (Sm.) Heeg.,
Tintern (35), March, 1939, E.W.J.
A. sphaerocarpa (Hook.) Dum., Lake Vyrnwy (47), E.W.J. ;
near Red Burn, Ben Nevis (97), 1939, A.Th. ; var. *nana* K.
Müll, Ben Nevis (97), July, 1923, H.H.K.
A. cordifolia (Hook.) Dum., Barra (110), J. Sinclair, per
J.B.D.
A. pumila (With.) Dum., Tintern (35), June, 1935, E.W.J. ;
var. *rivularis* Schiffn., Tintern (35), June, 1935, E.W.J. ;
Lake Vyrnwy (47), Aug., 1936, E.W.J.
Anastrophyllum Jorgensenii Schiffn., Glenmore Forest (96),
July, 1938, E.W.J.
Gymnocolea inflata (Huds.) Dum., near Wokingham (22),
Aug., 1936, E.W.J.
Lophozia badensis (Gottsche) Schiffn., Shepton Mallett (6),
E.W.J.
L. Mülleri (Nees) Dum., near Inchrory, Glen Avon (94),
July, 1938, E.W.J.

L. Wenzelii (Nees) Steph., Sron-an-Aonach, Cairngorm (96), 1938, E.W.J.

L. bicrenata (Schmid.) Dum., Trelleck Common (35), E.W.J.

L. lycopodioides (Wallr.) Cogn., Cairngorm and Braeriach (96), July, 1938, E.W.J. Therefore remove brackets for (96) in the Catalogue.

L. obtusa (Lindb.) Evans, Glenmore Forest (96), E.W.J.

Chiloscyphus polyanthus (L.) Corda, Hardwick Wood, near Reading (23), Feb., 1940, Prof. T. M. Harris, per E.A. ; var. *rivularis* (Schrader.) Nees, by Porter Brook, Sheffield (63), 1939, A.Th.

Harpanthus Flotowianus Nees, Cairngorm and Braeriach (96), July, 1938, E.W.J.

Cephalozia bicuspidata (L.) Dum., forma *setulosa* Spruce, near Dore entrance to Blacka Moor (57), 1939, A.Th. ; var. *Lammersiana* (Hüb.) Breidl., Brecon Beacons (42), April, 1937, E.W.J.

C. ambigua Massal., Ben-a-Bhuird and Corrie Etchachan (92), E.C.W. Therefore remove brackets.

C. macrostachya Kaal., Wokingham (22), Aug., 1936, E.W.J.

C. Francisci (Hook.) Dum., Wokingham and Hartford Flats (22), E.W.J.

Cephalozia Hampeana (Nees) Schiffn., New Forest (11), E.W.J. ; Lake Vyrnwy (47), Aug., 1937, E.W.J.

C. rubella (Nees) Warnst., Sutton Park (36), E.W.J.

C. stellulifera (Tayl.) Schiffn., Llantrisant (41), E.W.J.

C. striatula (Jens.) Douin, Wokingham (22), Aug., 1936, E.W.J.

Odontoschisma denudatum (Nees) Dum., near Matley Bog, New Forest (11), E.W.J.

Bazzania trilobata (L.) S. F. Gray, Fedw Wood, Tintern (35), June, 1935, E.W.J.

Lepidozia pinnata (Hook.) Dum., Inchnadamph (108), July, 1939, J.B.D. and H.H.K.

L. reptans (L.) Dum., var. *julacea* Nees, Burbage (57), Jan., 1939, A.Th.

L. setacea (Web.) Mitt., near Caesar's Camp, Wokingham (22), Aug., 1936, E.W.J.

Blepharostoma trichophyllum (L.) Dum., Hardwick Wood, near Reading (23), Feb., 1940, Prof. T. M. Harris, per E.A. ; Hoy, Orkney (111), Feb., 1939, J. Sinclair.

Herberta Hutchinsiae (Gottsche) Evans, Hoy (111), Feb., 1939, J. Sinclair, per J.B.D.

Ptilidium ciliare (L.) Hampe, Beinn Mhor, South Uist (110), Dr. K. Blackburn, per E.M.L. ; Kirkcowan (74), E.M.L. and E.C.W.

Trichocolea tomentella (Ehrh.) Dum., Wynham Eagle (9), July, 1936, E.W.J.

Scapania subalpina (Nees) Dum., var. *undulifolia* Nees, Cairngorm (96), July, 1938, E.W.J.

S. nemorosa (L.) Dum., Bere Wood and other places (9), 1936, E.W.J. ; Tintern (35), 1936, E.W.J. ; var. *uliginosa* Jensen, New Forest (11), July, 1936, E.W.J.

S. ornithopodioides (With.) Pears., Cairngorm (96), E.W.J. and P.W.M.R.

S. paludosa K. Mull., Cairngorm (96), E.W.J.

S. irrigua (Nees) Dum., Bagley Wood (22), Nov., 1939, E.W.J.

S. curta (Mart.) Dum., Tintern (35), June, 1935, E.W.J.

Madotheca Thuja (Dicks.) Dum., Isle of Hyskeir, Hebrides (104), Aug., 1938, Dr. K. Blackburn, per E.M.L. ; Hoy, Orkney (111), J. Sinclair, per J.B.D.

Lejeunea planiuscula (Lindb.) Buch emend., between Aberystwyth and Clarach (46), E.W.J. ; The Trossachs (87), Sept., 1914, A.W.

L. patens Lindb., Nant Eunant, Lake Vyrnwy (47), Aug., 1936, E.W.J. ; Glenmore Forest (96), July, 1938, E.W.J.

Marchesinia Mackaii (Hook.) Gray, Colwell Grove, Tintern (35), July, 1935, E.W.J.

Frullania germana Tayl., near Llangefni (52), A.W.

Anthoceros punctatus L., Tintern (35), April, 1937, E.W.J.

THE BRYO-PHILS !

Men have strange ways, their work once done,
 Each one prepares to have some fun.
 But see how different are the ways
 In which they choose to spend their days !
 The old man settles to his nap.
 The motorist gets out the map.
 The golfer runs to fetch his clubs.
 The labourer hangs about the pubs.
 Young couples, to see film stars kiss,
 For sixpence buy two hours of bliss.
 But most contented—can you guess ?—
 Are members of the B.B.S.

Winter or summer, rain or hail,
 In thick Scotch mist or tearing gale,
 They scour the land for N.C.R.'s.
 (To J.B.D. are left the vars.)
 Cares thrust aside beyond recall,
 Though wars may rage and bombs may fall,
 Armed with a bag and Baker lens
 They search the downs, the bogs, the glens,
 With eyes cast down and measured tread,
 Sandwich in pocket, cheese and bread.
 The darkness is their only curse
 (A stranger thinks they've lost their purse.)

Wherever there's a patch of green
 The keen bryologist is seen.
 In London's heart e'en may he view
 The *argent Bryum*, "*cum fructu*."
 The streams, the rivers are his friend ;
 He knows each rock, each pool, each bend.
 And Nature his companion sweet,
 When other friends he fails to meet.
 From Kent and Sussex to the Tees,
 Land's End to distant Hebrides ;
 Snowdon, Ben Nevis, Lochnagar
 (Though few there be will get as far),
 Eire's moist woods and peerless Ross—
 A rolling stone that gathers moss.

"ANONYMOSS."

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