

The British
Bryological Society



REPORT FOR 1929.

VOL. II PART 3.



Berwick-upon-Tweed :

MARTIN'S PRINTING WORKS, LTD., 64 AND 66 WEST STREET

1930.

Blank Page

145

EXECUTIVE OFFICERS
of the British Bryological Society
for 1929.

President :—

Mr. W. E. NICHOLSON, F.L.S.

Vice-President :—

Dr. W. WATSON, D.Sc., A.L.S.

Ex-Presidents :—

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

Dr. SYMERS M. MACVICAR.

Rev. C. H. BINSTEAD, M.A., F.L.S.

Treasurer :—

Mr. J. B. DUNCAN.

Librarian and Curator :—

Mr. W. R. SHERRIN, A.L.S.

Excursion Secretaries :—

Mr. J. B. DUNCAN

Mr. W. YOUNG.

Distributors :—

Mosses.—Mr. A. SUTTON, A.R.S.M.

Miss A. M. SAUNDERS.

Hepatics.—Mr. F. E. MILSOM, B.Sc.

Additional Members :—

Miss D. HILARY, B.Sc.

Captain C. D. CHASE, M.C., M.A.

Secretary :—

Mr. D. A. JONES, M.Sc., A.L.S.

3 Oxford Buildings,
Cheltenham.

LIST OF MEMBERS, 1929.

Honorary Members :—

- Rev. H. G. Jameson, M.A. (Oxon.), Gartymore, Park Rise,
Leatherhead.
- Herr Leopold Loeske, Detmolderstrasse, 55/3, Berlin-Wil-
mersdorf, Germany.
- Dr. Symers M. Macvicar, Invermoidart, Acharacle, R.S.O.,
Argyllshire.

Ordinary Members :—

- Mr. G. H. Allison, 65, Convamore Road, Grimsby.
- Herr H. Andres, Argelderstrasse, 124/2, Bonn am Rhein,
Germany.
- Miss E. Armitage, Dadnor, Ross, Herefordshire.
- Mrs. A. S. Bacon, B.Sc. (Lond.), F.L.S., Department of Biology,
Technical College, Brighton, Sussex.
- Herr Ernst Bartling, Frankenforststr., 22, Bergisch-
Gladbach, bei Köln, Germany.
- Mr. Edwin B. Bartram, Bushkill, Pike County, Pennsylvania,
U.S.A.
- Mr. A. T. Beals, 2929 Broadway, New York City, U.S.A.
- Mr. W. Bellerby, 21, Clifton Green, York.
- Mrs. Ida M. Bentley, Northend, Ashford, Kent.
- Mr. R. W. Bingham, B.A., Royal School, Dungannon, Co.
Tyrone, Ireland.
- Rev. C. H. Binstead, M.A. (Oxon.), F.L.S., c/o Mr. A.
Binstead, 136, Cromwell Road, London, S.W.7.
- Dr. Adám Boros, Aldás-u 4, Budapest, 11, Hungary.
- Mr. D. B. Bradshaw, Kirriemuir, Stillorgan Park, Co. Dublin.
- Mr. H. C. Broome, Notherthorpe, Failsworth, Manchester.
- Miss M. Buchanan, Dept. of Botany, National Museum,
Dublin.
- Mr. W. H. Burrell, F.L.S., Bracondale, 203, Hall Lane,
Horsforth, Leeds.
- Mr. D. G. Catcheside, B.Sc., 2, Mount Ephraim Lane,
Streatham, London, S.W.16., and Dept. of Botany, The
University, Glasgow.
- Mr. J. Charrier, La Châtaigneraie, Vendée, France.
- Captain C. D. Chase, M.C., M.A., Campbell College, Belfast.
- Mr. C. A. Cheetham, Nutting Grove, Farnley, Leeds.
- Miss E. J. Chick, 45, Cricklade Avenue, Streatham Hill,
London, S.W. 2.

- Miss H. A. Chick, 45, Cricklade Avenue, Streatham Hill,
London, S.W. 2.
- Miss C. A. Cooper, California Lane, Bushey Heath, Herts.
- Mr. F. Crosland, Eton House, Palmerston Street, Derby.
- Mr. H. N. Dixon M.A. (Lond. and Cantab.), F.L.S., 17, St.
Matthew's Parade, Northampton.
- Mrs. Dixon, 17, St. Matthew's Parade, Northampton.
- Mr. J. B. Duncan, 6, Summerhill Terrace, Berwick-on-Tweed.
- Miss E. Evitt, 103, St. Julian's Farm Road, London, S.E. 27.
- Mr. A. Gepp, M.A. (Cantab.), British Museum (Nat. Hist.),
Cromwell Road, London, S.W. 7.
- Mr. J. M. Grant, Marysville, Washington State, U.S.A.
- Rev. F. W. Gray, Marlinton, W. Virginia, U.S.A.
- Mr. J. Groves, F.L.S., Trevarthian, Freshwater Bay, Isle-of-
Wight.
- Mr. J. W. Hartley, Mill-Head House, Carnforth.
- Rev. W. J. Hayward, St. Mary's House, Newton Heath,
Manchester.
- Miss A. G. Hebson, 21, Lancaster Road, Hampstead, London,
N.W. 3.
- Mr. J. Helsby, 3, Kingsfield Road, Watford, Herts.
- Miss Mary Hewlett, M.Sc., Greenhead High School, Hudders-
field.
- Miss D. Hilary, B.Sc., 15, Plevna Terrace, Bingley, Yorks.
- Mr. G. F. Horsley, Holmdene, Eaglescliffe, Co. Durham.
- Miss E. M. Hough, M.A., The School, Brentwood, Essex.
- Mr. J. D. Houston, Northern Bank House, Kilrea, Co. Derry,
Ireland.
- Mr. C. P. Hurst, F.L.S., Ivy House, Great Bedwyn, Hunger-
ford.
- Mr. H. A. Hyde, M.A., F.L.S., National Museum of Wales,
Cardiff.
- Rev. R. Jackett, Crunwre Rectory, Whitland, Carmarthen-
shire.
- Mr. F. C. B. Jefferies, Brynmelyn, Winscombe, Somerset.
- Mrs. Jefferies, Brynmelyn, Winscombe, Somerset.
- Mr. D. A. Jones, M.Sc., A.L.S., 3, Oxford Buildings, Chelten-
ham.
- Mr. Iorwerth Jones, B.Sc., Dept. of Agriculture, University
College of Wales, Aberystwyth.
- Mr. H. H. Knight, M.A. (Cantab.), The Lodge, All Saints
Villas Road, Cheltenham.
- Dr. Mauno J. Kotilainen, D.Ph., Korkeavuoren, Katu 8,
Helsinki (Helsingfors), Finland.
- Mr. W. Leach, Newlands, Victoria Avenue, Quinton, near
Birmingham.

- Mr. J. R. Lee, 96, Finlay Drive, Dennistoun, Glasgow.
 Mr. Johannes Lid, Botanical Museum, Oslo, Norway.
 Rev. D. Lillie, M.A., B.D., The Manse, Watten, Caithness.
 Miss F. M. Loader, 5, Westbourne Mansions, Westbourne Crescent, Southampton.
 Mr. Percy Long, Glenlea, Carisbrooke Road, Newport, Isle-of-Wight.
 Mrs. F. A. MacFadden, Box 967 B, Route 1, Roscoe, California, U.S.A.
 Mr. C. V. B. Marquand, M.A. (Cantab.), F.L.S., 16, York Avenue, East Sheen, London, S.W. 14.
 Rev. W. R. Megaw, B.A., M.R.I.A., The Manse, Rosetta, Belfast.
 Mr. R. H. Meldrum, F.L.S., 3, Muirhall Bank, Perth.
 Mr. W. C. Millar, 8, North Terrace, Berwick-on-Tweed.
 Mr. F. E. Milsom, B.Sc., Glen Lyn, Station Road, Shepley, Huddersfield.
 Dr. Hjalmar Möller, Naturhistoriska Riksmuseum, Stockholm, Sweden.
 Mr. H. W. Monckton, V.P.L.S., F.G.S., 3, Harcourt Buildings, Temple, London, E.C.4.
 Mr. James Murray, 6, Burnside Road, Gretna, Dumfriesshire.
 Mr. W. E. Nicholson, F.L.S., 50, St. Anne's Crescent, Lewes.
 Miss E. F. Noel, F.L.S., 37, Burnham Court, London, W.2.
 Mr. J. L. O'Loughlin, 21, Corsehill Street, Streatham, London, S.W. 16, and St. Edmund Hall, Oxford.
 Mr. J. H. Payne, The Rowans, 90, Newhill, Wath-on-Dearne, Rotherham.
 Miss D. Powell, M.Sc., F.L.S., Aldersyde, Reigate, Surrey.
 Prof. J. H. Priestley, D.S.O., B.Sc., F.L.S., The University, Leeds.
 Rev. Dr. P. G. M. Rhodes, D.D., M.A. (Cantab.), F.L.S., Oscott College, Birmingham.
 Mr. P. W. M. Richards, Evreham Lodge, Iver, Bucks., and Trinity College, Cambridge.
 Mr. F. Rilstone, School House, Polperro, S.O., Cornwall.
 Mr. D. R. Robertson, 41, Johnston Avenue, Dundee.
 Prof. W. Robinson, D.Sc., University College, Aberystwyth.
 Miss Ida M. Roper, F.L.S., 4, Woodfield Road, Redland, Bristol.
 Dr. S. P. Rowlands, M.B., B.S. (Lond.), 58, St. Mary's Road, Doncaster.
 Miss A. Muriel Saunders, St. Ann's, Reigate, Surrey.
 Mr. G. B. Savery, Silvertown, Exeter.
 Miss L. I. Scott, B.Sc., Lyddon Hall, Leeds.
 Herr Albert Schumacher, Waldbröl, Rheinland, Germany.

- Mr. W. R. Sherrin, A.L.S., South London Botanical Institute,
323, Norwood Road, London, S.E. 24.
- Dr. A. I. Simey, M.D., St. John's, Horton Crescent, Rugby.
- Mr. J. R. Simpson, The Limes, Selkirk.
- Miss K. E. Smith, The Quarry, Lutterworth Road, Nuneaton.
- Mr. F. A. Sowter, Ashstead, North Avenue, Leicester.
- Mr. H. Stansfield, 20, Park Grove, York.
- Capt. Carl Stenholm, Södra Vägen, 24, Göteborg, Sweden.
- Mr. E. H. Stevens, B.A., Haw House, Rothbury, Northumber-
land.
- Mr. A. Sutton, A.R.S.M., 9, Brookfield Park, London, N.W.5.
- Miss B. M. Sutton, 7 Woodland Terrace, Chapel Allerton,
Leeds.
- Mr. W. G. Travis, 9, Barton Road, Liverpool.
- Dr. L. B. C. Trotter, M.D. (Cantab.), Rossway, Ledbury,
Herefordshire.
- Mrs. Trotter, Rossway, Ledbury, Herefordshire.
- Mr. Arthur Turner, 140, Pine Street, Nelson, Lancashire.
- Lieut.-Col. A. Ugglä, F.L.S., Royal Swedish Legation, 27,
Portland Place, London, W. 1.
- Mr. F. Verdoorn, Begijnkade, 10, Utrecht, Holland.
- Mr. E. C. Wallace, Springfield, 2, Strathearn Road, Sutton,
Surrey.
- Herr Johannes Warnstorff, Hohenzollern Strasse, 7/2, Witten-
berge, Potsdam, Brandenburg, Germany.
- Dr. Walter Watson, D. Sc. (Lond.), A.L.S., Taunton School,
Somerset.
- Mr. W. C. R. Watson, Rosedale, 245, Southlands Road,
Bickley, Kent.
- Miss M. Weightman, M.Sc., 13, Alexandra Road, Waterloo,
Liverpool.
- Prof. F. E. Weiss, D.Sc., F.R.S., Victoria University,
Manchester.
- Miss G. Wigglesworth, M.Sc., The Manchester Museum,
Victoria University, Manchester.
- Mr. A. Wilson, F.L.S., F.R.Met.S., Tir-y-coed, Roe Wen,
Conway, North Wales.
- Mr. C. H. Wilson, 55, Gladstone Street, Scarborough.
- Miss E. M. Wray, B.Sc., 9, Park View, Beeston Hill, Leeds.
- Miss A. Wyndham, Orchard Wyndham, Williton, Somerset.
- Mr. William Young, Fairview, Kirkealdy, Fifeshire.

NEW MEMBERS, 1930.

Mr. A. W. Bartlett, M.A. (Cantab.), M.Sc. (Dunelm.), F.L.S.,
Armstrong College, Newcastle-on-Tyne.

Rev. G. Birnie, The Manse, Speymouth, Fochabers, Moray-
shire.

Miss E. J. Bowen, B.Sc., Biological Dept., University College,
Swansea.

Miss E. M. Lobley, Nether Knowe, Windmill Hill, Hexham.

Mr. T. Kenneth Rees, M.Sc., Biological Dept., University
College, Swansea.

**MOSESSES AND HEPATICS SENT FOR
DISTRIBUTION, 1929—1930.**

	<i>Sphagna</i>	<i>True Mosses</i>	<i>Hep-atics</i>	<i>Total</i>
Mr. G. H. Allison	23	23
Herr H. Andres (Germany)	52	52
Miss E. Armitage	163	3	187
Herr Ernst Bartling (Germany)	114	114
Mr. E. B. Bartram (U.S.A.)	96	96
Mr. W. Bellerby	39	39
Rev. C. H. Binstead	201	201
Dr. A. Boros (Hungary)	35	186	221
Mr. W. H. Burrell	92	120
Mr. D. G. Catcheside	73	94
Mons. J. Charrier (France)	11	109	120
Miss H. A. Chick	26	26
Miss C. A. Cooper	18	18
Mr. H. N. Dixon	325	325
Mr. J. B. Duncan	408	467
Rev. F. W. Gray (U.S.A.)	296	296
Mr. H. A. Hyde (Nat. Mus. of Wales)	78	.....	39	117
Rev. R. Jackett	140	152
Mr. D. A. Jones	58	109
Mr. H. H. Knight	14	48
Mr. J. R. Lee	41	59
Mr. J. Lid (Norway)	38	105	143
Herr L. Loeske (Germany)	172	172
Rev. W. R. Megaw	35	35
Mr. W. C. Millar	133	133
Mr. F. E. Milsom	53
Mr. W. E. Nicholson	66	143
Rev. P. G. M. Rhodes	90	127
Mr. P. W. M. Richards	15	15
Mr. D. R. Robertson	7	7
Dr. S. P. Rowlands	50	50
Miss A. M. Saunders	25	25
Herr A. Schumacher (Germany)	40	50	140	230
Mr. H. Stansfield	30	30
Mr. E. H. Stevens	24	24
Captain C. Stenholm (Sweden)	64	79
Mr. A. Sutton	116	116
Miss B. M. Sutton	24	24

	<i>True Hep-</i>		
	<i>Sphagna</i>	<i>Mosses</i>	<i>atics Total</i>
Dr. L. B. C. Trotter	38	38
Mr. A. Turner	21	21
Mr. F. Verdoorn	121	45 166
Mr. E. C. Wallace	3	169 172
Herr Johann. Warnstorf (Germany)	7	18 25
Dr. W. Watson	16	47 29 92
Mr. W. Young	271	120 391
		391	4005 894 5290

REFEREES.

Mosses :—

Sphagnaceae and Harpidia	....	Mr. SHERRIN.
Andreaeaceae to Grimmiaceae	....	Mr. SAVERY.
Tortulaceae to Orthotrichaceae, and European	....	Mr. NICHOLSON.
Schistostegaceae to Leskeaceae	....	Mr. JONES.
Hypnaceae, except Harpidia	....	Mr. DUNCAN.
Non-European, and Referee-in- Chief	....	Mr. DIXON.

Hepatics :—

Referee-in-Chief	....	Mr. KNIGHT.
	....	Dr. MACVICAR.

REPORT OF SECRETARY.

The Eighth Annual Report of the British Bryological Society shows an increase in the number of members. The total on roll is now 113.

The Annual Meeting and Excursion in Scotland was well attended and proved a great success. It afforded an opportunity for several members to become acquainted with the rare alpine flora of Britain.

The Distribution is satisfactory although the number of contributors in Hepatics is not equal to expectations.

The duties of the Distributors, Referees and Bibliographer have been heavy again this year, and the grateful thanks of members are due to them.

The Third Edition of the Hepatic Census Catalogue has been published. A very fair number of species has been added to the British Flora and the number of new County Records has been considerably increased. There is still much work to be done with the distribution of this group and a strong appeal is made to members to renew their efforts in this direction. Mr. Albert Wilson is to be highly congratulated on his effective work as editor. Perhaps it should be mentioned that 400 copies have been printed and members are requested to procure copies and bring the Edition to the notice of others interested in the subject, in order to assist the Society to meet the expense of printing.

Some items of information may again be repeated this year :—(1) Mr. W. R. Sherrin is Librarian and Curator, to whom all gifts of bryological books and specimens will be very acceptable ; (2) Dr. L. B. C. Trotter is proceeding with the compilation of the Bibliography of Bryological Literature and will welcome copies of new papers ; (3) All new County Records should be sent direct, with specimens for verification, during the year to Mr. J. B. Duncan (Mosses), Mr. A. Wilson (Hepatics), and Mr. W. R. Sherrin (Sphagna and Harpidia).

D. A. JONES.

3 Oxford Buildings,
Cheltenham,
March, 1930.

REPORT OF DISTRIBUTORS (Mosses).

The number of mosses sent for distribution has been maintained at much about the same figure as in recent years. It is slightly greater than last year, though somewhat less than the year before. The percentage of British plants is a little lower than last year, being just over 60 per cent. The plants from the Continent of Europe are over 28 per cent., and those from non-European countries over 11 per cent. of the total. We are fortunate in having received from Norway some of the rarer species of *Bryum*, and it is also gratifying to be able to record gatherings from some parts of central Europe which, we think, have never before been represented in our reports. There are now very few European countries from which we have never received plants for distribution. American mosses are again well represented in our list, which also includes plants from India, Japan, Java, and West Africa; but perhaps the most interesting of the non-European plants are a series of mosses collected in the Crozet Islands, away to the south of the Indian Ocean, in 1907 and 1908, some of which are the subject of valuable reports by Mr. Dixon.

The list of contributors remains remarkably constant in length from year to year, fresh names appearing to replace those whom we have unfortunately lost, in many cases by death. We are glad to welcome new contributors while we deplore the loss of some of the old ones, and we specially appreciate the constancy of some of our older members who have kept up their contributions with unfailing regularity year after year, notwithstanding the fact that they can receive but an inadequate return, since in the course of years they have received all but the rarest of the British mosses which, of course, are seldom obtainable. To all contributors our grateful thanks are due.

The Referees have reported comparatively few errors in determination, and the general excellence of the material sent in has been maintained, though, in a few instances, it has been necessary to remark on the poorness of the specimens. We cannot be sufficiently grateful for the enormously valuable services rendered by the Referees, to whom the success of the Society is mainly to be attributed.

It may have been noticed that nothing has been said in recent reports as to the number of parcels sent out to members. This has been due to the fact that the report has

necessarily to be written before the distribution has been completed. It may, however, be of interest to mention that parcels of mosses were sent last year to 89 members, and this is about the average for the past five years. The hope expressed in the last report for the earlier completion of the distribution was fortunately realised, for all the parcels were despatched before the end of April.

Members may be interested to know that, in the last two distributions, specimens of all the mosses specially reported on by the Referees and new V.C. Records have been deposited in the herbarium of the Society, and may be seen on application to the Curator, Mr. Sherrin.

A. SUTTON.

A. M. SAUNDERS.

18th *March*, 1930.

REPORT OF DISTRIBUTOR (Hepatics).

A total of 894 packets has been contributed by 19 members.

Among many interesting species, pride of place must be given to *Jamesoniella Schraderi* (Nees) Schiffn., distributed by Mr. Knight. This is the first record for this plant in the South of England. Among other plants rarely distributed may be mentioned *Pallavicinia Lyellii* (Hook.) Gray and *Calypogeia sphagnicola* (Arnell et Perss.) Warnst., while Mr. Jones' record of *Cephalozia Loitlesbergeri* Schiffn., is the first for Wales.

Pleasant memories of the past year's successful meeting in Scotland are evoked by the many species contributed from Ben Lawers, etc. The writer may perhaps be pardoned for saying that he knows of no more enjoyable way of recalling past holidays than by re-studying old packets of mosses and hepatics.

Mr. Knight's expert refereeing and capable assistance have, as usual, been placed willingly at the service of the Society. He reports that the specimens have been nearly all well packetted and correctly named.

F. E. MILSOM.

Shepley, Huddersfield,
March, 1930.

CURATOR AND LIBRARIAN'S REPORT.

The new additions to the Library include many valuable reprints, which have been secured through the influence of Dr. L. B. C. Trotter.

Members are reminded of the privilege of consulting the *Bryologist*, which, following the arrangements announced in last year's report, will be circulated among them on application, postage prepaid.

A parcel of Mosses and Hepatics has been added to the herbarium by the distributors. A miscellaneous collection of plants which are new vice-county records has been received from Mr. J. B. Duncan.

W. R. SHERRIN.

South London Bot. Inst.,
323 Norwood Road,
London, S.E.24.,
March, 1930.

STATEMENT OF ACCOUNT FOR 1929.

<i>RECEIPTS.</i>				<i>EXPENSES.</i>			
Balance from last Account	..	..	£62 15 4	Printing—Report, 1928	..	..	£23 0 0
Subscriptions—1929	..	..	£41 13 10	„ Lists, Circulars, etc.	..	..	3 6 6
„ 1930 (paid before due)	..	..	3 15 0	Distribution costs—1928-29	..	..	5 1 5
„ Special Donation	..	..	0 16 6	Stationery	..	..	3 0 9
			46 5 4	Secretary's Expenses	..	..	3 3 1
Publications sold	..	..	0 6 10	Treasurer's	..	..	1 10 7
Donations—Visitors at Annual Excursion	..	..	0 10 6	Librarian's	..	..	1 2 3
Bank Interest	..	..	0 15 1	Annual Meeting (1929), Expenses	..	..	4 4 3
				Balance in hand, 31st December, 1929	..	..	66 4 3
			£110 13 1				£110 13 1

MOSS CENSUS CATALOGUE ACCOUNT.

Sales—1929, per Mr. W. R. Sherrin	..	..	£2 2 6	Balance—31st December, 1928	..	..	£13 3 10
Balance due 31st December, 1929	..	..	11 3 4	Expenses—Postage	..	..	0 2 0
			£13 5 10				£13 5 10

BALANCE SHEET, 31st DECEMBER, 1929.

<i>LIABILITIES.</i>				<i>ASSETS.</i>			
Subscriptions, 1930—paid before due	..	..	£3 15 0	Cash in hand (Ordinary Account) 31st Dec., 1929	£66	4	3
Distribution costs, 1929-30—(estimated)	..	..	5 0 0	Subscriptions in arrear (£1/15/-), estimated to produce	1	0	0
Printing Report, 1929—(estimated)	..	..	21 10 0	790 unsold copies, Moss Census Catalogue Ed. II.	0	0	0
Deficit on Moss Census Catalogue Account	..	..	11 3 4				
Balance (excess of Assets over Liabilities)	..	..	25 15 11				
			£67 4 3				£67 4 3

Examined and found correct—T. A. BRUCE,
24/1/30. Barclays Bank, Berwick-on-Tweed.

J. B. DUNCAN, Treasurer.

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

REPORT OF THE ANNUAL MEETING, 1929.

(Extracted from the *Journal of Botany*, January, 1930.
p. 26).

The British Bryological Society held its Annual Meeting and Excursion in Mid-Perthshire from July 27th to August 10th, 1929. In the absence of the President, Mr. W. E. Nicholson, F.L.S., the Vice-President, Dr. W. Watson, took the Chair at the Meeting. About forty members and friends were present during most of the period. The weather in that hilly region was naturally variable, but only on three occasions did heavy rain prevent the excursion taking place, while several days were fine, with clear views. From Killin, Ben Lawers was ascended twice, and Cam Chreag, Creag Lochain, and Creag Mhor were explored. From Crianlarich, Ben More and Ben Lui were climbed, and interesting work was done on Ben Dourean both in v.c. 88 and v.c. 98. Coire Coille Chium, the old Pine and Birch wood near Tyndrum, the rocks of Cruach Ardran and the gorge of the Falloch held good plants. Ben Cruachan in Argyll (v.c. 98) was also visited.

V.c. 88 has been so thoroughly worked that only a few new records were obtained, though a great many Bryophytes were noted. It may be well to put on record that, in the opinion of bryologists who have known the Lawers Flora for many years, several of the local plants were in less quantity than before, and that the same observation applies to the Phanerogamic Flora. With regard to the latter, the bryologists were most scrupulous only to point out the rare plants, and they were not gathered. The cause of the diminution might possibly be some change in climate and lessening rainfall with consequent drying-up of swampy areas, but observations on this point would have to be carried out over a period of years before any definite conclusion could be reached.

The following short list only includes the more noteworthy plants; new records for v.c.'s 88, 98, and 99 are starred:—

SPHAGNA.—The recent paper in this *Journal* (June, 1929) by Dr. Johannes Lid, describing two species found by himself near Crianlarich stimulated a search for them and several gatherings of *S. americanum* (*molle* var. *limbatum*) were made, and *S. strictum* was found in v.c. 98*, on Ben

Cruachan. *S. subtile*, once found on Schiehallion, was met with on the slopes under Cruach Ardran. Many other species were noted, including *S. Girgensohnii*, *Russowii*, *Warnstorffii*, *quinquefarium*, *molle*, *teres*, *contortum*, *imbricatum* var. *crisatum*, and *medium*.

TRUE MOSSES.—There are two important finds to record. *Fissidens Curnowii*, near Ardlui, v.c. 99* (Dumbarton), is new to Scotland, its distribution in England and Wales being mainly in the West; and *Trichostomum hibernicum* on Creag Mhor (88*), which, out of Ireland, was only known from Stirling (v.c. 86) and West Inverness (v.c. 97). Nearly all the very rare Perthshire (and especially Ben Lawers) plants were seen, and this was satisfactory, even if some were in less evidence than formerly. Among them the following deserve mention:—*Polytrichum sexangulare*, *Ditrichum zonatum*, and var. *scabrifolium* (v.c. 98*), *Cynodontium virens*, *Blindia caespiticia*, *Dicranum molle* and *asperulum*, *Racomitrium sudeticum* and *ramulosum*, *Leptodontium recurvifolium*, *Splachnum vasculosum*, *Aulacomnium turgidum*, *Timmia norvegica*, *Plagiobryum demissum*, *Mnium lycopodioides* and *spinulosum*, *Habrodon Notarisii* (no one was allowed to gather any of this moss from the original habitat on the old sycamore at Killin), *Myurella apiculata*, *Pterigynandrum filiforme* var. *heteropterum*, *Heterocladium dimorphum*, *Brachythecium plicatum* and *Starkei*, *Eurhynchium cirrosum*, *Amblystegium curvicaule*, *Hypnum Halleri*, *hamulosum*, *Bambergeri*, and *trifarium*.

HEPATICS.—New records for v.c. 88 are *Cephalozia ctenulata** and *Lepidozia reptans* vars. *tenera** and *julacea**. For v.c. 98 *Cephaloziella myriantha**, *Herberta adunca** and *Pleuroclada albescens**. A large number of the very rare Mid-Perthshire species were seen, such as *Gymnomitrium varians* (v.c. 98*), *G. alpinum*, *Marsupella Sullivantii*, *Jorgensenii*, *Alicularia Breidlerii*, *Lophozias heterocolpa*, *longidens*, *quadriloba* and *obtusa*; *Sphenolobus Hellerianus* and *politus*, *Cephalozia Loitlsbergeri*, *Cephaloziella striatula*, *Herberta Hutchinsiae*, *Mastigophora Woodsii*, *Diplophyllum taxifolium*, *Scapania Degenii*, &c.

At the Annual Meeting the officers were elected and the publication of the new Hepatic Census Catalogue was authorised. Any further records should be sent in at once. Next year's Excursion will be at Wareham, Dorset, beginning on Wednesday, April 23rd, 1930.

ELEONORA ARMITAGE.

REPORT ON PLANTS SENT IN BY MEMBERS.

—

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

—

SPHAGNA.

Sphagnum fimbriatum Wils., Hodder's Combe, Quantocks (5), July, 1929, W.W. "Yes, var. *validius* Card. Three of the packets contain also *S. recurvum* P. de B., var. *majus* Ångstr., a new record for v.c. 5." W.R.S.

S. Girgensohnii Russ., Lochan-na-Lairige (88), Aug., 1929, E.A.; Blagdon Hill, near Taunton (5), Dec., 1915, W.W. "Last year, on Mr. Wheldon's authority, I named this plant var. *gracilescens* Grav., see Report, 1928, p.87. I have now, however, carefully examined it, and have come to the conclusion that it is the var. *microcephalum* W. It has been distributed several times in past years, and has been the subject of various reports. First, in 1916, it was considered by Mr. Wheldon to come under the var. *commune* Russ., a variety abandoned by Warnstorf, see Moss Exch. Club Rep., 1916, p. 152. The following year he suggested that it was the var. *microcephalum* W., see M.E.C. Rep., 1917, p. 185. In 1919, however, it was sent in a third time as the var. *gracilescens* Grav., and Mr. Wheldon then, somewhat doubtfully, accepted this determination, see M.E.C. Rep., 1919, p. 229; but, as above stated, I now think that his second suggestion was the right one." W.R.S.; var. *robustum* W., Falls of Falloch (87*), Aug., 1929, E.A.

S. Russowii W., Denbigh Moors (50*), Sept., 1929, E.A.; Lochan-na-Lairige (88), Aug., 1929, E.A.; var. *Girgensohnioides* Russ., *f. virescens* Russ., Sidlaw Hills (90), May, 1924, leg. D.R.R., com. H.A.H., ex herb. Nat. Mus. of Wales. "This is *S. Girgensohnii* Russ. The pores in the stem cortex are very large—.027-.030 mm.—and are constantly present in every cell. In scraping, the cortex comes off cleanly and when stained forms a very pretty object for the microscope. In *S. Russowii*, on the contrary, the pores never exceed .020 mm., and there is only one pore to about a dozen cells. The cortex moreover does not come off in such nice pieces, and the effect of staining is nothing like so curious." W.R.S.

S. Warnstorffii Russ., Lochan-na-Lairige (88), Aug., 1929, E.A.

S. rubellum Wils., Goathland (62), May, 1929, W.B.

S. subtile W., Cruach Ardran (88), Aug., 1929, E.A.

S. acutifolium Ehrh., Mitterbach, Austria, July, 1923, A.B.
 "Two packets are correct. The others contain *S. amblyphyllum*, var. *mesophyllum*." W.R.S.

S. quinquefarium W., Denbigh Moors (50), Sept., 1929, E.A. ;
 Cross Cliff, Pickering (62), leg. W. H. Pearsall, com. W.H.B. ;
 Cruach Ardran (88), Aug. 1929, E.A. ; var. *roseum* W., f.
heterocladum W., Sidlaw Hills (90), May, 1924, leg. D.R.R.,
 com. H.A.H., ex herb. Nat. Mus. of Wales.

S. plumulosum Roell., St. Vincent sur Graou, Vendée, France, Aug., 1928, J.C.

S. molle Sull., var. *molluscoides* W., f. *heterophyllum* W.,
 s.f. *tenerum* W., Wahner Heide, Rheinland, Germany, Aug.,
 1929, A. Schumacher.

S. americanum W., Crianlarich (88), Aug., 1929, E.A.

S. compactum D.C., Leith Hill (17), July, 1928, E.C.W. ;
 var. *imbricatum* W., Killin (88), Aug., 1929, E.A.

S. strictum Sull., Liss (11*), Sept., 1929, E.A. ;
 Crianlarich (88), July, 1925, J.L. ; Larsnes, Möre, Norway,
 July, 1907, leg. B. Kaalaas, com. J.L., ex herb. Univ.
 Osloensis ; Tidenham Chase, West Gloster (34*), Dec., 16th,
 1912, H.H.K. New to England.

S. squarrosum Pers., var. *imbricatum* Schpr., f. *sylvaticum*
 Wheld., Aintree (59), Nov., 1918, leg. J. A. Wheldon, com.
 H.A.H., ex herb. Nat. Mus. of Wales. "Not a well-marked
 form of this variety. There are too many squarrose leaves
 present, especially on the lower part of the stem. I think it
 best to call it var. *subsquarrosus* Russ., approaching var.
imbricatum Schpr." W.R.S. ; f. *pynocladum* Wheld., Aintree
 (59), July, 1904, leg. J. A. Wheldon, com. H.A.H., ex herb.
 Nat. Mus. of Wales. "This is the var. *subsquarrosus* Russ.
 The var. *imbricatum* has the branch leaves everywhere densely
 imbricate." W.R.S.

S. teres Ångstr., near Loch Awe (98), July, 1929, E.A.
 "This is *S. fallax* v. Klinggr., var. *microcephalum* W., a new
 v.c. record." W.R.S. ; near Hámortó, Vas, Hungary, Aug.,
 1924, A.B.

S. amblyphyllum Russ., var. *parvifolium* W. (*S. parvifolium*
 (Sendt.) W.), Kelemér, Gömör, Hungary, July, 1924, A.B.

“Two packets contain *S. amblyphyllum* v. *mesophyllum* W., two *S. recurvum* P. de B., and one *S. recurvum*, v. *majus* Ångstr., f. *pulchellum* W.” W.R.S.

S. pulchrum (Lindb.) W., var. *virescens* W., Ebbegebirge, Westphalia, Germany, Aug., 1929, A. Schumacher. “This is *S. recurvum* P. de B., var. *majus* Ångstr., f. *silvaticum* Russ. The chlorophyllose cells as seen in transverse section agree well for this species. Those of *S. pulchrum* are quite distinct, being equilateral triangular and half the height of the hyaline cells. See my Handbook of Brit. Sphagna, pl. ii. W.R.S.”

S. recurvum P. de Beauv., Mt. Caiková, near Poméz, Pest, Hungary, July, 1923, A.B. “This is *S. obtusum* W.” W.R.S.; var. *majus* Ångstr., Denbigh Moors (50*), Sept., 1929, E.A.; var. *parvulum* W., f. *viride* W., Denbigh Moors (50*), Sept., E.A.

S. cuspidatum Ehrh., near Fornos, Bereg, Hungary, Oct., 1926, A.B. “This is *S. amblyphyllum* Russ., var. *mesophyllum* W. One packet contains f. *molle* Russ., two f. *albescens* W.” W.R.S.; var. *falcatum* Russ., Denbigh Moors (50*), Sept., 1929, E.A.; f. *molle* W., Kuchem bei Berg, Brölgebiet, Rheinland, Germany, Sept., 1927, A. Schumacher.

S. molluscum Bruch, Crianlarich (88), Aug., 1929, E.A.

S. obesum W., near var. *sanguineum* W., Llanberis Pass (49*), Sept., 1929, E.A.

S. inundatum Russ., Moinbello, prov. Milan, Italy, Dec., 1897, leg. A. Artaria, com. J. W.; var. *densum* (Warnst.), Sherrin, Ellerbeck (62), May, 1929, W.B.

S. auriculatum Schpr., var. *ovatum* W., Llanberis Pass (49), Sept., 1929, E.A.

S. contortum Schultz, Killin (88), Aug., 1929, E.A.

S. crassicladium W., Puy de Serre, Vendée, France, July, 1928, J.C. “Yes, the var. *magnifolium* W.” W.R.S.

S. imbricatum (Hornsch.) Russ., Wahner Heide, Rheinland, Germany, Aug., 1929, A. Schumacher; var. *cristatum* W., Crianlarich, Cruach Ardran, and Coire Coille Chium (88), Aug., 1929, E.A.; Oplandstjörn, Voss, Norway, Aug., 1922, J.L.; var. *sublaeve* W., Hildener Heide, Kesselweihen, Rheinland, Germany, Oct., 1928, A. Schumacher. “An abnormal form.” W.R.S.; Vardeåsen, Asker, Norway, May, 1920, J.L. “The comb-fibrils in the branch leaves are far too numerous for the var. *sublaeve*. I should prefer to call it var. *cristatum* W.” W.R.S.

S. papillosum Lindb., Ellerbeck (62), Oct., 1929, W.B. "This is the var. *normale* W." W.R.S.; var. *normale* W., Llanberis Pass (49), Sept., 1929, E.A.; var. *sublaeve* W., Upper Raeburnsdale (59), Oct., 1899, leg. J. A. Wheldon and A.W., com. H.A.H., ex herb. Nat. Mus. of Wales; f. *breviramosum* W., Upper Raeburnsdale (60), leg. J. A. Wheldon and A. W., com. H.A.H., ex herb. Nat. Mus. of Wales; sf. *orthocladum* W., Upper Raeburnsdale (60), Oct., 1899, leg. J. A. Wheldon and A.W., com. H.A.H., ex herb. Nat. Mus. of Wales.

S. cymbifolium Ehrh., Denbigh Moors (50), Sept., 1929, a densely-tufted, short-branched form, E.A.; Coire Coille Chium and Cruach Ardran (88), Aug., 1929, E.A.; St. Vincent sur Graou, Vendée, France, Aug., 1928, J.C.; Rákosd, Vas, Hungary, Oct., 1924, A.B.

S. medium Limpr., Coire Coille Chium (88), Aug., 1929, E.A.; Kélemér, Gömör, Hungary, July, 1924, A.B.; Kühlbach, Wiehlgebeit, Rheinland, Germany, Oct., 1927, A. Schumacher.

TRUE MOSSES.

EUROPEAN (British and Continental).

Andreaea alpina Smith, Creag Mhor (88), Aug., 1929, B.M.S.

A. Rothii W. & M., Brown Willie (2), Aug., 1922, A.S.

A. nivalis Hook., Braeriach, Cairngorm Mts. (96), July, 1928, D.R.R.

Oligotrichum hercynicum Lam., var. *laxum* Braithw., Llanberis (48), Aug., 1924, A.S.

Polytrichum nanum Neck. (*Pogonatum nanum* P. Beauv.), Serigué, Vendée, France, March, 1928, J.C.

P. aloides Hedw. (*Pogonatum aloides* P. Beauv.), La Vardière and Chapelle-aux-Lys, Vendée, France, March, 1928, J.C.

P. alpinum L., Brecon Beacons (42), Aug., 1927, and Killin (88), July, 1929, A.S.

P. pilferum Schreb., Wittenberge, Potsdam, Germany, May, 1929, J.W.

P. strictum Banks, Ebbegebirge, Westphalia, Germany, Aug., 1929, A. Schumacher.

P. gracile Dicks., Wahner Heide, Rheinland, Germany, June, 1929, c.fr., A. Schumacher; near Nagybjom and Darány, Somogy, Hungary, May, and July, 1923, A.B.

P. formosum Hedw. (*P. attenuatum* Menz.), Mt. Szt., Györgyhegy, Zala, Hungary, June, 1928, A.B.

P. commune L., Kelemér, Gömör, Hungary, April, 1924 A.B.

Diphyscium foliosum Mohr. Snowdon (49), Sept., 1924. A.S.

Archidium alternifolium Schpr., near Greenlaw (81), Oct., 1928, J.B.D.

Ditrichum zonatum Limpr., Ben Lawers (88), Aug., 1929, J.B.D.; Ben More (88), Aug., 1929, W.Y.; var. *scabrifolium* Dixon, Ben Douran (98*), Aug., 1929, D.A.J. "This is no doubt rightly named, as the habit and elongated leaves quite agree with the var. *scabrifolium*, but the papillae on the leaves are not well developed, in fact the leaves are mostly smooth." G.B.S.

D. vaginans Hampe, Colin Top, near Belfast (I. 39), Aug., 1928, C.H.B., and J.B.D.

D. flexicaule Hampe, var. *densum* B. & S., Ben Lawers (88), July, 1929, J.B.D.

Swartzia montana Lindb., Mt. Louis, E. Pyrenees, France, April, 1928, C. A. Cooper.

S. inclinata Ehrh., Gwynfe (42), June, 1929, leg. H.H.K., J.B.D. and D.A.J., com. D.A.J.

Seligeria recurvata B. & S., Settle (64), March, 1929, W.H.B.

Saelania caesia (Vill.) Lindb., Mt. Louis, E. Pyrenees, France, April, 1928, C. A. Cooper; Mt. Szt. György-hegy, Zala, Hungary, June, 1928, A.B.

Ceratodon chloropus Brid., Walton, near Clevedon (6*), new to British Isles, May, 1929, C.H.B.; *idem*, leg. C.H.B. and H.H.K., com. H.H.K.; near Hyères, Var, France, May, 1929, W.E.N.

Rhabdoweisia denticulata B. & S., Moelwyn Bach (48), Sept., 1922, leg. D.A.J., com. E.C.W. "One of these packets is correctly named. In the others the moss is mostly *R. fugax*." G.B.S.; near Glüder, Rheinland, Germany, Nov., 1928, E.B.

R. crenulata Jameson, Dolgelly (48), 1929, R.J.

Oreas Martiana Brid., Kitzbühler Alpen, Gaisstein, Austria, Sept., 1927, L.L.

Cynodontium Bruntoni B. & S., The Dargle (I. 20), May, 1929, W.R.M.; (*Oreoweisia Bruntoni* Milde) with *Rhabdoweisia fugax*, Simonskall, Eifel, Germany, Oct., 1926, E.B.

Dichodontium pellucidum Schpr., var. *compactum* Schpr., Hule Moss (81), June, 1928, J.B.D.; Craig Chailleach (88), July, 1927, W.Y.

D. flavescens Lindb., Glenariff (I. 39), Aug., 1928, leg. C.H.B. and A.S., com. A.S.

Dicranella heteromalla Schpr., var. *sericea* Schpr., near Aspatria (70), Sept., 1924, c.fr., C.H.B.

D. cerviculata Schpr., Studland Heath (9), June, 1929, C.H.B.; Schwalental, Rheinland, Germany, July, 1928, A. Schumacher.

D. varia Schpr. (*D. rubra* (Huds.) Moenkem.), Alsógalla, Komárom, Hungary, April, 1928, A.B.

D. Schreberi Schpr., Coldwell, near Nelson (59), June, 1928, A.T.; Addingham Reservoir (64), June, 1929, W.H.B.; a shade form, Long Preston Moor (64), March, 1929, W.H.B. (103). "I think this plant should be called var. *elata* Schpr." G.B.S.; Belvoir Park (I. 38), Nov., 1929, W.R.M.

D. squarrosa Schpr., Ceunant Bach, Gwynant (49), May, 1916, c.fr., leg. J. C. Wilson, com. D.A.J.

Blindia caespiticia Lindb., Ben Lawers (88), July, 1927, J.B.D., and July, 1929, W.Y.

Dicranoweisia crispula Lindb., Cam Creag, Killin (88), July, 1929, J.R.L. ; Lawers Burn (88), Aug., 1902, leg. D.A.J., com. E.C.W. ; Craig Chailleach (88), July, 1927, W.Y.

Campylopus subulatus Schpr., Pistyll-y-Cain, Dolgelly (48), Aug., 1928, S.P.R. ; Wye (42), Aug., 1929, and Canarth Falls (46*), Sept., 1929, R.J. ; forma *elongata*, near Rosthwaite (70), June, 1929, C.H.B.

C. Schimperii Milde, Ben Lawers (88), July, 1929, J.B.D.

C. Schwarzii Schpr., Stonethwaite (70), leg. and com. C.H.B., det. H.N.D. "Leaves rather more toothed than usual." G.B.S. "A form, as Mr. Savery points out, with the leaves frequently, at least, more toothed than usual." H.N.D. ; Snowdon (49), Sept., 1924, A.S. ; Cruach Ardran (88), Aug., 1929, J.B.D.

C. flexuosus Brid., North Hill, Minehead (5), July, 1929, c.fr., E.C.W. ; forma *elata*, Königsforst, bei Bensberg, Rheinland, Germany, Nov., 1923, E.B. ; var. *zonatus* Limpr., Ystadffin, Llandovery (44), June, 1929, leg. H.H.K., D.A.J. and J.B.D., com. J.B.D. "Auricles not very strongly developed." G.B.S. ; Sligo (I. 28), Sept., 1928, C.A. Cooper. "Some of the packets contain more *Dicranum scoparium* than *Campylopus*." G.B.S.

C. fragilis B. & S., Pagham Beach (13), May, 1928, E.C.W.

C. setifolius Wils., Tyn-y-Groes (48), Aug., 1922, W.W. ; var. *intermedius* Jones, Cwm Bychan (48), Sept., 1922, leg. D.A.J., com. E.C.W.

C. atrovirens De Not., Snowdon (49), Sept., 1924, A.S. ; var. *gracilis* Dixon, between Tysse and Norheimsund, and Kvamshang, Hardanger, Norway, Aug., 1928, L.B.C.T. "The first gathering is correctly named, the bright colour and the elongated and attenuated leaves being characteristic. The second (from Kvamshang), however, is *Dicranodontium longirostre*." G.B.S.

C. introflexus Brid., Barmouth (48), 1929, R.J. ; Killarney (I. 1), July, 1925, c.fr., leg. H.H.K., J.B.D. and W.E.N., com. W.E.N.

Dicranodontium longirostre B. & S., Borrowdale (70), May, 1929, C.H.B. ; var. *alpinum* Milde, Stonethwaite, Borrowdale (70), May, 1929, C.H.B. ; Ingleborough (64), Jan., 1915, leg. C.A.S., Cheetham, com. W.H.B.

Dicranum fulvellum Smith, Snowdon (49), Sept., 1924, leg. D.A.J., com. A.S.; Cwm Idwal (49), Sept., 1924, leg. C.H.B. and A.S., com. A.S.

D. falcatum Hedw., Ben More (88), Aug., 1929, J.B.D.; Craig Chailleach (88), July, 1927, W.Y.

D. schisti Lindb., form with numerous male flowers, both axillary and terminal, frequently on separate stems from the fruit. Summit of Ben Laoigh (88), Aug., 1929, leg. B.B.S., com. H.N.D.; Craig Chailleach (88), July, 1927, W.Y.; Slieve Donard (I. 38), Aug., 1928, A.S.; (*D. Blyttii* Schpr.), St. Andreasberg, Harz, Germany, July, 1922, J.W.

D. Starkei W. & M., Ben Lawers (88), July, 1929, J.B.D.; Ben More (88), Aug., 1929, W.Y.

D. molle Wils., Summit of Ben Laoigh (88), Aug., 1929, H.N.D.; Ben Lawers (88), July, 1929, J.B.D.; Ben More (88), Aug., 1929, W.Y.

D. undulatum Ehrh., near Darány, Somogy, Hungary, April, 1923, A.B.

D. spurium Hedw., near Teignmouth (5), April, 1926, and near Lyndhurst (11), April, 1927, A.M.S.; Denntal, Eifel, Germany, May, 1929, E.B.

D. Bergeri Bland., Graden (80), Oct., 1927, and Ford Moss (68*), May, 1929, J.B.D.; Dogden Moss, near Greenlaw (81), June, 1928, leg. J.B.D. and W.C.M., com. W.C.M.

D. Bonjeani De Not., Ford Moss (68), June 1929, J.B.D.; Strensall Common (62), March, 1917, H.S.; var. *anomalum* C. Jens. (1906), Obbhult, Fagared, Halland, Sweden, June, 1926, det. C. Jensen, leg. and com. C.S. "This differs considerably from ordinary *D. Bonjeani*. In some of the leaves the areolation towards the points is hardly distinguishable from that found in *D. Bergeri*." G.B.S.; var. *rugifolium* Bosw., Dogden Moss (81), Oct., 1928, J.B.D.

D. angustum Lindb., Araviken, Arvidajaur, Pitea Lappmark, Sweden, Aug., 1926, C.S.

D. scoparium Hedw., var. *spadiceum* Boul., Easedale Fells, Grasmere (69), June, 1929, C.H.B.

D. fuscescens Turn., Dunkery Beacon (5), July, 1929, E.C.W.; Ben Lawers (88), July, 1903, W.Y.

D. Mühlenbeckii B. & S., St. Luc, Valais, Switz., June, 1914, P.G.M.R. (277).

D. Scottianum Turn., Coed Crafnant, Llanbedr (48), Aug., 1929, P.G.M.R.

D. elongatum Schleich., Araviken, Arvidajaur, Pitea Lappmark, Sweden, Aug., 1926, C.S.

D. strictum Schleich., Rothbury (68), Jan., 1929, E.H.S.

D. flagellare Hedw., Ruislip (21), May, 1927, P.W.M.R.

D. asperulum Mitt., Cruach Ardran (88), Aug., 1929, J.B.D. and B.M.S.

D. longifolium Ehrh., Simonskall, Eifel, Germany, Nov., 1926, E.B.

Leucobryum glaucum Schpr., New Forest (9), 1929, c.fr., leg. J. J. Marshall, com. G.H.A.; near Egerbakta, Heves, Hungary, Oct., 1923, A.B.

Fissidens pusillus Wils., Sprotborough, Doncaster (63), Nov., 1929, S.P.R.

F. incurvus Starke, W. Portholland (2), July, 1929, D.G.C.

F. Curnowii Mitt., near Ardlui, Dumbarton (99*), new to Scotland, Aug., 1929, B.B.S.

F. Monguilloni Thér., Faymoreau, Vendée, France, Sept., 1929, J.C.

F. crassipes Wils., Whitbourne (36), Aug., 1929, C.H.B.; Rothbury (67), June, 1929, E.H.S.

F. osmundoides Hedw., Borrowdale (70), June, 1929, C.H.B.; Loch Tay shore (88), July, 1927, W.Y.

F. decipiens De Not., Boxhill (17), Feb., 1928, c.fr., E.C.W.; near Downham (59), April, 1928, A.T.

Grimmia apocarpa Hedw., forms connecting type with var. *rivularis* W. & M., R. Wye, below Builth (42), July, 1903, H.N.D.; var. *alpicola* H. & T., R. Wye, below Builth (42), July, 1903, H.N.D.; var. *rivularis* W. & M., Aira Force (69), July, 1891, Duntalon (104), July, 1893, Henhole, Cheviot (68), July, 1905, and Inchnadamph (108), July, 1899, H.N.D.; (*Schistidium alpicola* (Sw.) Limpr., var. *rivulare* Whal.), Manderscheid, Eifel, Germany, July, 1925, E.B.; var. *gracilis* W. & M., Snowdon (49), July, 1888, Aira Force (69), July, 1891, and Cader Idris (48), July, 1901, H.N.D.

G. conferta Funck (*Schistidium confertum* B. & S.), Monschau, Eifel, Germany, June, 1929, E.B.

G. maritima Turn., Cape Wrath (108), July, 1899, and Giant's Causeway (I. 39), July, 1890, H.N.D.

G. plagiopoda Hedw., Naumburg, Thuringia, Germany, March, 1925, leg. C. Lindner, com. L.L.

G. anodon B. & S., La Géronde, Sierre, Valais, Switz., July, 1926, P.G.M.R. (2658).

G. incurva Schwaegr., Titterstone Cleve Hills (40), Aug., 1927, J.B.D. ; forma *brevifolia*, Glyder Fach (49*), Sept., 1924, leg. B.B.S., com. H.N.D.

G. funalis Schpr., Ben Lawers (88), July and Aug., 1929, J.R.L. and W.C.M. ; slender forms, High Force, Teesdale (65), Aug., 1896, and Ellen's Isle, Loch Katrine (87), July, 1897, H.N.D.

G. torquata Hornsch., Cader Idris (48), June, 1929, R.J. ; Ben Lawers (88), July, 1929, J.B.D. ; Creag Mhor (88), Aug., 1929, J.R.L.

G. pulvinata Smith, Sywell (32), April, 1891, form with cucullate calyptra, H.N.D.

G. orbicularis B. & S., Nash Scar (36), March, 1899, leg. C.H.B., com. H.N.D. ; near Dunbar (82), June, 1929, W.C.M.

G. trichophylla Grev., Poltesco, Lizard (1), Aug., 1886, and Bolton Woods (64), July, 1896, H.N.D. ; Inchnadamph (108), July, 1899, "a marked form or var." leg. E. S. Salmon, W.E.N. and H.N.D., com. H.N.D. ; Kyles Hills (68), July, 1905, "a form with basal cells often short as in *G. subsquarrosa*, but not constant at all. Perhaps nearer to *G. Stirtoni* than *G. subsquarrosa*." H.N.D.

G. Stirtoni Schpr., Penmaenpool (48), July, 1901, H.N.D.

G. subsquarrosa Wils., Monk's Cove (45), 1916 and 1919, R.J. "I should call this *G. trichophylla*. The leaves are spreading in all directions and cannot be called squarrose. The basal cells are inclined to be short, but not more so than is often seen in *G. trichophylla*." G.B.S.

G. decipiens Lindb., near Llanfrothen (48), Sept., 1922, leg. D.A.J., com. E.C.W.

G. Hartmani Schpr., near Killin Pier (88), July, 1897, leg. C.H.B. and H.N.D., com. H.N.D. ; Lodore (70), June, 1929, C.H.B. ; near Gleichenberg, Styria, Sept., 1927, A.B.

G. retracta Stirt., by Loch Tay, Killin (88), July, 1899, leg. E. S. Salmon, W.E.N. and H.N.D., com. H.N.D. ; R. Wye, Erwood Bridge (43), July, 1903, leg. C.H.B. and H.N.D., com. H.N.D. ; *idem.*, "obtuse leaved form with short nerve" ; *idem.*, "male plants" ; R. Wye, near Builth (42), July, 1903, H.N.D. ; *idem.*, "obtuse-leaved form" ; by Loch Tay (88), July, 1929, J.B.D. ; Lawers (88), July, 1929, C.A. Cooper.

G. patens B. & S., R. Lank, Camelford (2), Aug., 1886, and Snowdon (49), July, 1888, H.N.D.; near Rosthwaite (70), May, 1929, C.H.B.

G. Doniana Smith, Beddgelert (48), and Snowdon (49), July, 1888, H.N.D.; Sca Fell Pike (70), Aug., 1895, H.N.D.; Cader Idris (48), June, 1929, R.J.; near Burley (59), April, 1928, A.T.

G. arenaria Hampe, near Talsarnau (48), July, 1901, leg. D.A.J. and H.N.D., com. H.N.D.; Penmaenpool (48), July, 1901, H.N.D.; Dolgelly (48), June, 1929, R.J.

G. ovata Schwaegr., Meol Ghaordi (88), July, 1927, W.Y.; var. *cylindrica* (Bry. Germ.) Hüben., see "Handbook," Craig Chailleach (88), July, 1897, H.N.D.

G. commutata Hüben., Wickham, Essex (19), Jan., 1884, *fide* W. Mitten, com. H.N.D.; R. Wye, near Builth (42), July, 1903, H.N.D.; Szentendre, Pest, Hungary, Aug., 1928, A.B.

G. montana B. & S., Fingle Bridge (3), July, 1894, c.fr., H.N.D.; Bleus in Roerthal, Eifel, Germany, Oct., 1928, E.B.

G. caespiticia Brid., Grand St. Bernard, Switz., in or near *loc. class.*, July, 1922, P.G.M.R.

G. elongata Kaulf., Hobcarton Crags (70), June, 1926, H.N.D.; Ben Lawers (88), May, 1929, D.G.C. "This, I think, is *Rhacomitrium heterostichum*, var. *gracilescens* B. & S.; all the cells towards the base of the leaf are sinuose." G.B.S.

G. atrata Mielich., Hobcarton Crags (70), June, 1926, H.N.D.

Rhacomitrium ellipticum B. & S., Cruach Ardran (88), Aug., 1929, H.N.D.

R. aciculare Brid., Llyn Dinas, N. Wales (49), July, 1888, "leaves entire, fr. oval, short," H.N.D.; forma *folia squarrosis*, Ben More (108), July, 1899, leg. W.E.N. and H.N.D., com. H.N.D.

R. protensum Braun, Ben Lawers (88), July, 1911, W.Y., "This is *Grimmia patens* B. & S. The areolation is not that of a *Rhacomitrium* and the nerve is winged at the back." G.B.S.; forma, Quinag (108), low altitude, July, 1897, leg. E. S. Salmon, W.E.N. and H.N.D., com. H.N.D.

R. fasciculare Brid., Markinch (85), Jan., 1911, W.Y. "This is *R. canescens* Brid. Note the squarrose arrangement of the leaves, the decurrent, hyaline auricles, and the strongly papillose leaves." G.B.S.; Béverée, near Malmédy, Belgian Ardennes, Oct., 1927, leg. F. Toussaint, com. F.V. (Bryophyta Arduennae Exsiccata, No. 45).

R. heterostichum Brid., Errigol (I 35), July, 1890, H.N.D. ; Weismes, Belgian Ardennes, Sept., 1929, leg. F. Toussaint, com. F.V., (Bryophyta Arduennae Exsiccata, No. 46) ; forma, R. Towey, Ystrad-ffin (44), June, 1929, leg. H.H.K., D.A.J. and J.B.D., com. J.B.D. ; Ben Lawers (88), July, 1929, J.B.D. ; var. *alopecurum* Hüben., Ben Lawers (88), July, 1893, c.fr., H.N.D. ; var. *gracilescens* B. & S., Eel Crag, Borrowdale (70), Aug., 1895, H.N.D. ; Glen Nevis (98), Aug., 1926, H.A.C. ; var. *obtusum* (Sm.) Loeske, Moel Hebog (49), July, 1888, and Ben Lawers (88), July, 1893, H.N.D. ; Sävelyka, Jörlanda, Bohuslän, Sweden, June, 1926, C.S.

R. ramulosum Lindb., Ben Douran (98), Aug., 1929, c.fr., D.A.J. ; Ben Lawers (88), July, 1929, J.B.D. ; Creag Mhor (88), July, 1910, W.Y.

R. lanuginosum Brid., forma *epilosa*, Ben More (108), July, 1899, leg. W.E.N. and H.N.D., com. H.N.D.

R. canescens Brid., near Brockenhurst (11), May, 1920, A.S. ; forma *subepilosum*, Brachlinn Falls, Callander (87), July, 1897, H.N.D.

Coscinodon cribrosus Spruce, Portmadoc (48), July, 1888, H.N.D. ; Béverée, near Malmédy, Belgian Ardennes, Oct., 1927, leg. F. Toussaint, com. F.V. (Bryophyta Arduennae Exsiccata, No. 36) ; Monschau, Eifel, Germany, June, 1929, E.B.

Ptychomitrium polyphyllum Fuernr., St. Nighton's Kieve, Boscastle (2), Aug., 1886, H.N.D.

Glyphomitrium Daviesii Brid., Glencoe (98), July, 1898, leg. C.H.B. and H.N.D., com. H.N.D.

Hedwigia ciliata Ehrh., Loch Tay, near Lawers (88), July, 1921, J.R.L.

H. imberbis Spruce, Traprain Law (82), Sept., 1928, J.B.D. and W.C.M. ; Llanberis (49), Sept., 1924, leg. L. H. Pegler, com. H.A.C.

Pottia Heimii Fuernr., Canvey Island (18), April, 1919, leg. W.R.S., com. A.S.

P. truncatula Lindb., Ashstead Common (17), March, 1923, A.S.

P. intermedia Fuernr., Knighton Heath (3), 1918, leg. W.R.S., com. A.S.

P. minutula Fuernr., Humberstone (54), April, 1929, G.H.A.

P. lanceolata (Hedw.) C. Muell., Horáyicsárda, Pest, Hungary, April, 1926, A.B.

Crossidium squamigerum Jur., near Vevey, Vaud, Switz., Dec., 1919, P.G.M.R. (1214).

Tortula aloides De Not., Budock (1), June, 1922, leg. L. H. Pegler, com. H.A.C.; Herrenstrunden, Rheinland, Germany, Nov., 1925, E.B.

T. ambigua Ångstr., Portland Bill (9), June, 1928, E.C.W. "This plant is not in very good condition, having been gathered too late in the season. It is clear however, from the leaves alone that it belongs to *T. aloides* De Not., and the spores, which are rare in the specimens, confirm this, as they average about .024 mm." W.E.N.

T. cernua Lindb., Aberford (64), Oct., 1929, W.H.B.

T. atrovirens Lindb., Mittersill, Austria, Aug., 1927, L.L.

T. cuneifolia Roth., Exwick Hill, Exeter (3), Dec., 1918, c.fr., leg. W.R.S., com. A.S.

T. marginata Spruce, Sprotborough, Doncaster (63), Nov. 1929, S.P.R.

T. muralis Hedw., var. *rupestris* Schultz, Chudleigh (3), April, 1918, c.fr., leg. W.R.S., com. A.S.

T. angustata Wils., Moccas (36), July, 1929, C.H.B.

T. mutica Lindb., Stoke Common, near Exeter (3), March, 1918, leg. W.R.S., com. A.S.

T. laevipila, Schwaegr., Bishop's Cleeve (33), Dec., 1913, c.fr., leg. H.H.K. and D.A.J., com. E.C.W.; near Winchester (11), May, 1922, c.fr., leg. M. W. Sutton, com. A.S.

T. intermedia Berk., Dolgelly (48), Aug., 1928, S.P.R.; St. Bride's, (45) Jan., 1929, R.J.; (*Syntrichia montana* N. ab E.), near Széleskut, Pozsony, Hungary, June, 1928, A.B.

T. ruralis Ehrh., Itford (14), Sept., 1920, A.S.

T. princeps De Not., Hume Castle (81), Sept., 1927, J.B.D.

T. papillosa Wils., Taylortown (I. 39), Feb., 1925, W.R.M.

Barbula lurida Lindb., Crunwere (45), Jan., 1929, and Wye, above Llangurig (47), Aug., 1929, R.J. "The Crunwere gathering is correctly determined. The Wye plant, however, is *B. fallax* Hedw." W.E.N.; Robin Hood's Bay (62), June, 1928, W.B. "This plant is *B. tophacea* Mitt." W.E.N.; Linton Lock (62), Oct., 1917, H.S.

B. rubella Lindb., var. *ruberrima* Ferg., Ben Lawers (88), July, 1929, and Ben More (88), Aug., 1929, J.B.D. "Quite correct, but this plant should now be called *B. ferruginascens* Stirt. See note to the 3rd Edition of Mr. Dixon's Handbook." W.E.N.

B. tophacea Mitt., Jackdaw Quarry (64), Oct., 1913, H.S.; (*Dilym don tophaceus* Jur.) Bretignolles, Vendée, France, Aug., 1929, J.C.; Rómaifüzdó, near Buda Pest, Hungary, March, 1926, A.B.; forma *thermarum* Boros, hot springs at Arpádmalon, Obuda, Hungary, June, 1927, A.B.

B. fallax Hedw., Portland Bill (9), June, 1929, E.C.W.; var. *brevifolia* Schultz, Rudersdorfer Kalkberge, Berlin, Germany, May, 1929, L.L.

B. recurvifolia Schpr., Clapdale (64), May, 1926, A.S.; var. *robusta* Braithw., Ben Bulben (I. 28), Sept., 1928, J.B.D. and W.Y.

B. spadicea Mitt., Long Preston Beck (64), March, 1929, W.H.B.

B. rigidula Mitt., Crunwere (45), April, 1929, R.J.

B. Nicholsoni Culmann., Caplar, R. Wye (36), Sept., 1929, L.B.C.T. "Four of these envelopes are correct, but the fifth is wholly *B. cylindrica* (Tayl.) Schpr." W.E.N.

B. cylindrica Brid., Bransby (62), June, 1920, H.S. "This is *B. rubella* Lindb." W.E.N.

B. vinealis Brid., Dripping Well, Portluney Cove (2), July, 1929, D.G.C. "This plant is *B. tophacea* Mitt., well-marked and good specimens. *B. vinealis* is seldom or never found in dripping wells." W.E.N.; near Szabadszallás, Pest, Hungary, May, 1928, A.B.

B. sinuosa Braithw., Polesden Lacy, near Bookham (17), July, 1928, E.C.W.

B. gracilis (Schleich.) Schwaegr., near Kaposujlak, Smogy, Hungary, April, 1926, and Iszkaszentgyöry, Fehér, Hungary, April, 1928, A.B.

B. Hornschuchiana Schultz, St. Provant, Vendée, France, April, 1929, J.C.

B. revoluta Brid., Crunwere (45), Nov., 1928 and April, 1929, R.J. "The two packets of the Nov., 1928, gathering appear to be correctly named; but, with the exception of one packet which is a sterile form of *B. rubella* Lindb., all the other plants belong to *B. convoluta* Hedw., var. *Sardoa* B. & S." W.E.N.

B. convoluta Hedw., Sligo (I. 28), Sept., 1928, W.Y. "I should be inclined to refer this plant to the var. *Sardoa* B. & S. It is larger and taller than the type." W.E.N.

Leptodontium flexifolium Hampe, Oersdorf, Stade, Hanover, Germany, Sept., 1927, leg. R. Timm, com. L.L.

L. recurvifolium Lindb., near Tal-y-Llyn (48), June, 1917, leg. D.A.J., com. E.C.W.

Weisia calcarea C.M., var. *viridula* C.M. Note:—One packet of the plant from Angle (45), Oct., 1928, R.J., distributed last year and reported on as being the type rather than the var. *viridula* (See Report, 1928, p. 99), has since been found to contain a form of *Trichostomum crispulum* Bruch. Members who received specimens should revise them.

W. rupestris C.M., Dunearn Hill (85), April, 1903, W.Y.

W. curvirostris C.M., Ben Laoigh (88), Aug., 1929, J.B.D.; (*Hymenostelium curvirostre* Lindb.), Wallis, near Zermatt, Switz., Aug., 1923, E.B.; var. *commutata* Dixon, Nant-y-Ffrith, near Wrexham (50), April, 1907, c.fr., leg. J. C. Wilson and D.A.J., com. D.A.J.; near St. Abbs (81), July, 1927, leg. J.B.D. and W.C.M., com. W.C.M.; var. *scabra* Lindb., near Killin (88), July, 1927, W.Y.; var. *insignis* Dixon, Ben Laoigh (88), Aug., 1929, c.fr., D.A.J., Ben Bulben (I. 28), Sept., 1928, J.B.D.

W. verticillata Brid., (*Eucladium verticillatum* B. & S.), Castagnola, near Lugano, Switz., May, 1927, E.B.

Trichostomum crispulum Bruch, near Cove Harbour (81), Oct., 1927, leg. J.B.D. and W.C.M., com. W.C.M.; Bundoran (I. 34), Sept., 1928, W.Y.; var. *nigro-viride* Braithw., Ingleborough (64), May, 1926, leg. L. H. Pegler, com. H.A.C.

T. mutabile Bruch, near Menton, S. France, April, 1928, c.fr., C.H.B.; var. *littorale* Dixon, W. Portholland (2), July, 1929, D.G.C.; var. *cophocarpum* Schpr., Cader Idris (48), April, 1913, leg. D.A.J., com. E.C.W.

T. Warnstorffii Limpr. (*Hyophila riparia* (Aust.) Fleisch.), Rheinfalls, Switz., Aug., 1908, leg. W.E.N. and H.N.D., com. H.N.D.

T. tenuirostre Lindb., Stonethwaite (70), May, 1929, C.H.B.; near Killin (88), July, 1927, W.Y. "The Killin plant is *Diphyscium foliosum* Mohr, var. *acutifolium* Lindb., which often bears a superficial resemblance to *T. tenuirostre*." W.E.N.

T. hibernicum Dixon, Creag Mhor (88*), Aug., 1929, B.M.S., det. W.E.N. and H.N.D. ; Torc Mt. Killarney (I.1), June and July, 1925, leg. H.H.K., J.B.D. and W.E.N., com. W.E.N. and J.B.D.

T. flavovirens Bruch, Humberstone (54), April, 1929, G.H.A.

T. inclinatum Dixon (*Tortella inclinata* (Hedw. f.) Limpr.), near Izsák, Pest, Hungary, May, 1928, A.B.

T. nitidum Schpr., Minehead (5*), July, 1929, E.C.W. ; Crunwre (45), Oct., 1929, R.J.

Pleurochaete squarrosa (Brid.) Lindb., Pétfürdő, Veszprém, Hungary, May, 1927, and near Izsák, Pest, Hungary, May, 1928, A.B.

Cinclidotus riparius (Host.) Arn.. Remanen, Mittel Rhein, Germany, April and May, 1928, H.A. ; Frépin, Ardennes, France, 1929, F.V. "Mr. Dixon agrees with me that the French plant should be referred to *C. fontinaloides* P. Beauv." W.E.N.

C. aquaticus B. & S., Jaun, Fribourg, Switz., June, 1923, P.G.M.R. (2000).

Encalypta ciliata Hoffm., Glen Tatnich (89), July, 1904, W.Y. ; var. *subciliata* Warnst., c.fr., and with axillary gemmae, Gross Glockner, Salzburg, Austria, June, 1929, L.B.C.T.

E. streptocarpa Hedw., Killin (88), July, 1929, H.N.D. ; form with bunches of brown axillary gemmae, Kaprunertal, Salzburg, Austria, June, 1929, L.B.C.T.

Anoetangium compactum Schwaegr., Tyndrum (88), Aug., 1929, c.fr., J.B.D. ; var. *pellucidum* Dixon, Crom Allt, Tyndrum (88), Aug., 1929, J.B.D.

Zygodon lapponicus B. & S., Craig Chailleach and Ben Lawers (88), July, 1893, H.N.D.

Z. Mougeotii B. & S., St. Nighton's Kieve, Boscastle (2), Aug., 1886, H.N.D. ; Radnor Forest (43) and Llangurig (47), Aug., 1929, R.J.

Z. viridissimus R.Br., Warin, Mecklenburg, Germany, July, 1928, leg. Koppe, com. L.L. ; var. *rupestris* Lindb., Glen Lyon (88), July, 1893, H.N.D. ; Pagharn Beach (13), May, 1928, E.C.W.

Z. Stirtoni Schpr., Carisbrooke Castle (10), Jan., 1891, H.N.D.

Z. conoideus H. & T., Stonethwaite (70), May, 1929, C.H.B.

Ulota Bruchii Hornsch., Bröhltal, Rheinland, Germany, June, 1926, A. Schumacher.

U. crispa Brid., var. *intermedia* Braithw., Ben Lawers (88), May, 1929, D.G.C. "This plant is not in very good condition for determining the exact shape of the mature capsule, but from the dark colour of the plant and such few capsules as are mature I should be inclined to refer it to *U. Bruchii* Hornsch." W.E.N.

U. vittata Mitt., Glencar (I. 29), Sept., 1928, J.B.D. and W.Y.

U. curvifolia (Wahlenb.) Brid., Gudbrandsdalen, Tretten, Opland, Norway, July, 1901, leg. E. Ryan, com. J.L., ex herb. Univ. Osloensis; Oeberget, Arjeppluog, Pitea Lappmark, Sweden, Aug., 1926, C.S.

U. Hutchinsiae Hamm., Dolgelly (48), Aug., 1929, R.J. "With the exception of one rather poor specimen of *U. Hutchinsiae*, these consist mostly of *Rhacomitrium protensum* Braun, a rather poor form." W.E.N.

Orthotrichum anomalum Hedw., near Killin (88), July, 1927, W.Y. "This is *O. cupulatum* Hoffm. The shorter capsules on much shorter setae are very different from those of *O. anomalum*." W.E.N.

O. cupulatum Hoffm., Clevedon (6), March, 1929, C.H.B.

O. affine Schrad., Braes of Balquhidder (87), July, 1911, W.Y.; var. *rivale* Wils., Elba (81), Sept., 1929, J.B.D.

O. rivulare Turn., R. Whitadder (81), Sept., 1929, J.B.D.

O. diaphanum Schrad., Mickleham (17), May, 1929, E.C.W.

O. obtusifolium Schrad., Annot, S. France, leg. C.H.B., com. H.A.C.

Splachnum sphaericum L.fil., Craig Chailleach (88), July, 1927, W.Y.; Ben Lawers (88), May, 1929, D.G.C.; Bødalsbrae, Nordfjord, Norway, July, 1925, L.B.C.T.

S. vasculosum L., Cam Creag, Killin (88), July, 1929, B.M.S.

Tetraplodon mnioides B. & S., Nant-y-Mor (49), May, 1916, leg. J. C. Wilson and D.A.J., com. D.A.J.; Ben Lawers (88), July, 1929, J.B.D.; Meol Ghaordie (88), July, 1927, W.Y.

Discelium nudum Brid., Ram's Clough (63), March, 1899, leg. L. Tetlow, com. H.C.B. and E.C.W.; Bad Godesberg, Rhenania, Germany, April, 1928, leg. Brasch, com. L.L.; Kottenforst bei Godesberg, Bonn-am-Rhein, Germany, March, 1921, E.B.

Nanomitrium tenerum Lindb., Horstead Keynes (14), Oct., 1928, leg. W.E.N. and H.H.K., com. H.H.K.

Physcomitrella patens B. & S., Bramham (64*), July and Aug., 1929, W.H.B. ; Sacklinghall, near Wetherby (64), Aug., 1929, W.W. ; Monchamps and Faymoreau, Vendée, France, June and Sept., 1928, J.C.

Physcomitrium pyriforme Brid., Flintwood, Doncaster (63), May, 1929, S.P.R.

Funaria hungarica Boros (*Entosthodon hungaricus* Boros), Fülöpszállás, Pest, Hungary, May, 1926, A.B. "This is an authenticated specimen, collected by the author. It was described and figured in 'Magyar Botanikai Lapok' (Ungarische Bot. Blätter) XXIII, p. 73 (1924)." H.N.D.

F. calcarea Whal., Cheddar (6), April, 1929, C.H.B.

Aulacomnium turgidum Schwaegr., Ben More (88), Aug., 1929, W.Y. ; Knudsho, Norway, July, 1890, leg. Sir B. Stone, com. P.G.M.R.

A. palustre Schwaegr., near Hámortó, Vas, Hungary, Aug., 1924, A.B.

Timmia comata Lindb. and Arn., Abiskjokk, Tornean Lapland, Sweden, Aug., 1907, leg. W.E.N. and H.N.D., com. H.N.D.

T. norvegica Zett., Cam Creag, Killin (88), July, 1929, W.C.M. ; King's Seat, Killin (88), July, 1929, J.R.L. ; Meol Ghaordie (88), July, 1927, W.Y.

Catoscopium nigratum Brid., Largo (85), July, 1904, c.fr., leg. J. McAndrew, com. W.Y. ; Newborough Warren (52), June, 1929, c.fr., P.W.M.R.

Conostomum boreale Swartz, Craig Chailleach (88), July, 1927, c.fr., W.Y.

Bartramia Oederi Swartz, Via Gellia (57), Aug., 1923, A.S.

B. ithyphylla Brid., Snowdon (49), Sept., 1924, leg. C.H.B., com. A.S.

B. pomiformis (L.) Hedw., Ljan, Akershus, Norway, June, 1929, leg. J. Holmboe, com. J.L., ex herb. Univ. Osloensis, "Approaching var. *crispa* B. & S." D.A.J.

B. Halleriana Hedw., Stonethwaite, Borrowdale (70), May, 1929, C.H.B. ; Cruach Ardran (88), Aug., 1929, J.B.D.

Philonotis fontana Brid., var. *alpessa* (Ferg.) L. & M., Ben Lawers (88), July, 1929, J.B.D. and W.C.M. "The lower leaves of Mr. Millar's gathering are rather strongly

pointed for the variety, although in other respects it might pass." D.A.J. "The leaves are certainly rather pointed; but otherwise the habit, etc., are so marked that I think it should certainly be placed under the var." H.N.D.; Killin (88), July, 1927, W.Y.; var. *ampliretis* Dixon, Aberglaslyn (49), Dec., 1923, leg. W. H. Pearson and D.A.J., com. E.C.W.

P. caespitosa Wils., near Berwick (68), May, 1928, J.B.D.; f. *laxiretis* Loeske (aquatic form), Tannenbergestal, Saxony, Germany, Sept., 1905, leg. Stolle, com. L.L.

P. seriata Mitt., Grand St. Bernard, Switz., 2470 m., July, 1922, P.G.M.R. (1674).

P. calcarea Schpr., Jávorkut, near Felsőhamor, Borsod, Hungary, May, 1923, A.B.

P. marchica Willd., near Buch, Berlin, Germany, male plants, July, 1906, leg. Osterwald, com. L.L.

Breutelia arcuata Schpr. Ceunant Mawr (49), May, 1916, male plants, leg. J. C. Wilson, com. D.A.J.

Orthodontium gracile Schwaegr., near Oak Beck, Harrogate (64), April, 1928, E.H.S.; Bolton Abbey (64), July, 1928, W.H.B.; var. *heterocarpum* Wats., Crowden (58), *loc. class.*, Sept., 1927, and Greenfield (63), Aug., 1926, W.W.; Ramsden Clough, Holmbridge (64), Sept., 1924, W.H.B.

Leptobryum pyriforme Wils., Wyke Regis (9), June, 1928, c.fr., E.C.W.; Moha, near Huy, Belgian Ardennes, April, 1929, leg. A. Cornet, com. F.V., (Bryophyta Arduennae Exsiccata No. 35).

Webera elongata Schwaegr., Snowdon summit (49), Sept., 1924, A.S.; Am Binnein (Stobinian) (88), Aug., 1929, W.Y.

W. nutans Hedw., alpine form, near summit of Stobinian (88), Aug., 1929, c.fr., leg. B.B.S., com. H.N.D. "A much more robust plant than *W. commutata*, which was growing near it, and with stouter nerve and narrower cells." H.N.D.; summit of Ben Douran (98), Aug., 1929, J.B.D.; var. *bicolor* (H. & H.) B. & S., Rhöngebirge, Germany, July, 1905, J.W. "This is more tufted than the type, but the shape and colour of the capsule are doubtful for var. *bicolor*." D.A.J. "I should have said this was certainly not the capsule of the var." H.N.D.

W. annotina Schwaegr., var. *erecta* Correns, Craig na Lochan (88), Aug., 1929, male plants, H.N.D.; Am Binnein (Stobinian) (88), Aug., 1929, W.Y. "Sometimes *W. commutata* has bulbils similar to those of the above variety, but plants of *W. commutata* which I have gathered in Scotland are more robust." D.A.J. "I think this is correct." H.N.D.

W. Ludwigii Schpr., Ben Lawers (88), July, 1911, W.Y.; Ben More (88), Aug., 1929, J.B.D.

W. commutata Schpr., Ben More (88), Aug., 1929, B.M.S. "Alpine forms of *W. nutans*, as mentioned in the Handbook, are sometimes confusing and not always easy to separate from *W. commutata*. The dark colour of this plant is rather unusual for the latter, and the leaves are occasionally decurrent." D.A.J. "This and *W. nutans* were growing close together on Stobinian, and I have mounted them together in my herbarium to show how close they are; but this *W. commutata* is distinct, being much smaller, with weaker nerve and wider cells." H.N.D.

W. gracilis (Schleicher.) De Not. (*Pohlia gracilis* Lindb.), near Buch, Berlin, Germany, May, 1905, leg. Osterwald, com. L.L.

W. carnea Schpr., Waltham (54), May, 1929, c.fr., G.H.A.; Faymoreau, Vendée, France, Sept, 1929, J.C.

W. albicans Schpr., robust form, Ben Laoigh (88), Aug., 1929, W.Y.; var. *glacialis* Schpr., Ben Lawers (88), July, 1929, J.B.D.; Croban, Killin (88), July, 1929, leg. J.B.D. and W.C.M., com. W.C.M.

Bryum filiforme Dicks., near Killin (88), July, 1927, W.Y.; Ben Lawers (88), July, 1929, W.C.M.; var. *juliforme* Dixon (*Anomobryum juliforme* Solms), St. Provant, Vendée, France, April, 1929, J.C.

B. pendulum (Hornsch.) Schpr., near Aviemore (96), July, 1920, leg. H.H.K. and W.E.N., com. W.E.N.; near Edinburgh (83), Aug., 1904, leg. J. McAndrew, com. W.Y.

B. Brownii B.E., Börselv, Porsanger, Finnmark, Norway, July, 1894, leg. Chr. Kaurin, com. J.L., ex herb. Univ. Osloensis.

B. calophyllum R.Br., Lakselv, Porsanger, Finnmark, Norway, July, 1894, leg. Chr. Kaurin, com. J.L., ex herb. Univ. Osloensis.

B. acutum Lindb., Lakselv, Porsanger, Finnmark, Norway, July, 1894, leg. Chr. Kaurin, com. L.L., ex herb. Univ. Osloensis. "Allied to *B. calophyllum*. This gathering is vouched for by Hagen, 'Musci Norvegiae borealis,' p. 155." H.N.D.

B. Axel-Blyttii Kaurin, Börselv, Porsanger, Finnmark, Norway, July, 1894, leg. Chr. Kaurin, com. J.L., ex herb. Univ. Osloensis. "Very close to *B. acutum*, and treated by Brotherus ('Laubm. Fennoskandias') as a sub-species of that." H.N.D.

B. Duvalii Voit, Creag Mhor (88), July, 1929, W.Y. ; Ben More (88), Aug., 1929, J.B.D. ; King's Seat, Killin (88), July, 1929, W.C.M.

B. cyclophyllum B. & S., Hedwigshof, Dramburg, Pomerania, Germany, July, 1929, leg. F. Hütze, com. L.L.

B. affine (Bruch) Lindb., Leumont, Belgian Ardennes, June, 1929, leg. A. Cornet, det. J. Amann, com. F.V., (Bryophyta Arduennae Exsiccata, No. 47).

B. pallidum Warnst., Wittenberge, Potsdam, Germany, June, 1908, J.W.

B. canariense Brid., Caldas de Monchique, Algarve, Portugal, May, 1911, leg. W.E.N. and H.N.D., com. H.N.D.

B. capillare L., var. *torquescens* Husn., Harlech Sandhills (48) May, 1913, leg. D.A.J., com. E.C.W.

B. Donianum Grev., Vouvant, Vendée, France, April, 1928, J.C.

B. erythrocarpum Schwaegr., Chobham Common (17), June, 1924, H.A.C.

B. atropurpureum W. & M., Chesil Beach (9), June, 1928, c.fr., E.C.W.

B. gemmiparum De Not., near Menton, Alpes Maritimes, France, April, 1929, and Le Gapeau Valley, Var, France, May, 1929, c.fr., W.E.N.

B. Mildeanum Jur., near Rosthwaite (70), June, 1929, C.H.B.

B. Gerwigii Limpr., Rheinfall, Neuhausen, Switz., Aug., 1908, leg. W.E.N. and H.N.D., com. H.N.D.

B. argenteum L., var. *lanatum* B. & S., Nyetimber, near Paghham (13), May, 1928, E.C.W.

B. roseum Schreb., Ben Lawers (88), May, 1929, D.G.C.

Mnium Seligeri Juratzka, Michendorf, near Berlin, Germany, June, 1926, L.L.

M. affine Bland., var. *rugicum* B. & S., "forma luxurians," Rydal (69), June, 1929, leg. and com. C.H.B., det. H.N.D.

M. cuspidatum (L.) Leyss., near Moha, Fehér, Hungary, April, 1926, A.B.

M. rostratum Schrad., Mickleham Downs (17), May, 1928, E.C.W.

M. orthorrhynchum B. & S., Creag an Lochan (88), July, 1929, W.C.M. ; Ben Lawers (88), July, 1929, J.B.D.

- M. riparium* Mitt., Whitbourne (36), Sept., 1929, C.H.B.
- M. stellare* Reich., Roughting Linn (68), Oct., 1929, leg. J.B.D. and W.C.M., com. W.C.M.
- M. cinclidoides* Hueben., Grasmere (69), June, 1929, C.H.B.; Ben Cruban (88), July, 1929, J.R.L.; Tal-y-Llyn (48), June and Aug., 1929, R.J.
- M. punctatum* L., Ingleborough (64), April, 1925, A.S.
- M. subglobosum* B. & S., Edlingham Bridge (68), June, 1929, E.H.S.; Saltersgate Ravine (62), Aug., 1929, S.P.R.; (*M. pseudopunctatum* B. & S.), Vogelsberg, Germany, April, May and July, 1927, H.A.
- Cinclidium stygium* Swartz, near Malham Tarn (64), May, 1926, A.S.
- C. subrotundum* Lindb., Slutemyr, Maristuen, Norway, Aug., 1900, leg. W.E.N. and H.N.D., com. H.N.D.
- Fontinalis antipyretica* L., var. *ligurica* (Fleisch.) Card. in litt., near Rapallo, Liguria, Italy, detex. M. Fleischer, com. J.W. Bryotheca Eur. merid. (Fleisch. and Warnstorf), Cent. II., 1897. "I do not know this variety, and believe it has not been published. This is apparently the original gathering." H.N.D.
- F. Kindbergii* Ren. and Card., Gerfeld, Rhöngebirge, Germany, leg. Bergner, July, 1922, com. J.W.
- Dichelyma falcatum* (Hedw.) Myrin, Sveggauereberget, Arjeppluog, Pitea Lappmark, Sweden, June, 1926, C.S.
- D. capillaceum* (Dill.) Schpr. Bergwald "Villa," Köln, Germany, Oct., 1919, leg. Brasch, com. L.L.
- Neckera turgida* Jur., Kronweiler, Rhenania, Germany, Aug., 1916, leg. Fr. Mueller, com. L.L. Note:—Moenkemeyer ("Die Laubmoose Europas" p. 644) unites this with *N. Menziesii* Hook.; cf. Non Eur. Mosses, A.S.
- N. crispa* Hedw., var. *falcata* Boul., Boxhill (17), Feb., 1928, E.C.W.
- N. pumila* Hedw., Glen Falloch (87), Aug., 1929, J.B.D. and W.Y.
- N. complanata* Hueben., Glen Falloch (87), Aug., 1929, W.Y.
- N. Besseri* (Lob.) Jur., Csévi-szirtek, Esztergom, Hungary, March, 1927, A.B.

Homalia trichomanoides (Schreb.) B. & S., Hochwald, near Nunkirchen, Trier, Germany, April, 1927, leg. M. Dewes, com. H.A.

Leucodon sciuroides Schwaegr., Wolstanbury (13), May, 1922, A.S.; Chapelle aux Lys, Vendée, France, March, 1928, J.C.

Pterogonium gracile Swartz, Killin (88), July, 1927, W.Y.; (*P. ornithopodioides* Lindb.), St. Hilaire de Voust, Vendée, France, March, 1928, J.C.

Habrodon Notarisii Schpr., Killin (88), July, 1900, W.Y.

Antitrichia curtispindula Brid., Two Bridges (3), May, 1928, c.fr., J.B.D.

Anacamptodon splachnoides Brid., Bergisch-Gladbach, Rheinland, Germany, June, 1926, E.B.

Leskea polycarpa Ehrh., Kisoroszii sziget, Pest, Hungary, Oct., 1919, A.B.

Anomodon viticulosus H. & T., near Profondeville, Belgian Ardennes, 1929, F.V.

Leptodon Smithii Mohr, near Dorchester (9), May, 1928, J.B.D.

Pterigynandrum filiforme Hedw., Ben Lawers (88), July, 1929, W.Y. and W.C.M. "Mr. Young's gathering belongs to *Pseudoleskea atrovirens* B. & S.; Mr. Millar's is correct." D.A.J.; Mt. Agasvár, Heves, Hungary, May, 1928, A.B.

Heterocladium heteropterum B. & S., Carnbo (85), July, 1905, W.Y.; Dol-y-Cae, Dolgelly (48), Aug., 1928, S.P.R.; Zell-am-See and Kaprunertal, Salzburg, Austria, June, 1929, c.fr., L.B.C.T. "The Austrian plants are *Pterigynandrum filiforme* Hedw." D.A.J.; var. *fallax* Milde, Tourgill Burn, near Largo (75), May, 1929, J.R.L.

H. dimorphum B. & S., Ben Lawers (88), July, 1929, J.B.D.

Pseudoleskea atrovirens B. & S., Ben Lawers (88), July, 1929, J.B.D. and W.C.M.; idem., July, 1911, W.Y.

P. catenulata B. & S., Cam Creag, Killin (88), July, 1900, W.Y.

Thuidium abietinum B. & S., Whittingham (33), Dec., 1913, leg. H.H.K. and D.A.J., com. E.C.W.; Rosses Point, Sligo (I. 28), Sept., 1928, W.Y.

T. hystricosum Mitt., near Shoreham (16), April, 1921 and May, 1925, A.S.

T. recognitum Lindb., Note :—The plant from Duly Glen, near Tal-y-bont (49), Nov., 1928, A.W., distributed last year under this name as a new record for v.c. 49 (See Report, 1928, p. 109) has since been found to be *T. delicatulum* Mitt. Members who received specimens should make the correction.

T. Philiberti Limpr., Chilton Foliot (7), March, 1924, W.W. ; Boxhill (17), April, 1927, D.G.C. ; Meol Ghaordie (88), July, 1927, W.Y.

Myurium hebridarum Schpr., North Uist, Hebrides (110), Aug., 1902, leg. W. West, com. W.H.B. ; Arisaig (97), Aug., 1927, leg. A.M.S. and D.P., com. A.M.S.

Orthothecium rufescens B. & S., Creag an Lochan (88), July, 1929, W.C.M.

O. intricatum B. & S., Via Gellia (59), Aug., 1923, and Ingleborough (64), April, 1925, A.S.

Platygyrium repens B. & S., Herrenstrunden, Rheinland, Germany, Oct., 1929, E.B. "Mr. Dixon agrees with me that this plant should be referred to the var. *rupestris* Milde of the above species." W.E.N.

Camptothecium nitens Schpr., near Cartington (68), Nov., 1928, E.H.S. ; Lochain-na-Lairige, Killin (88), July, 1929, leg. W.W., H.H.K. and D.A.J., com. D.A.J. ; idem., Aug., 1929, H.H.K.

Brachythecium rivulare B. & S., forma *homomalla*, Thrum Rocks, Rothbury (67), June, 1928, E.H.S.

B. velutinum (L.) B.E., f. *cavernicola*, "Szeleta," near Hamor, Borsod, Hungary, May, 1928, A.B.

B. trachypodium B. & S., Peira Cava, Alpes Maritimes, France, April, 1928, C.H.B.

B. populeum B. & S., Crunwere (45), Oct., 1929, c.fr., R.J.

B. plumosum B. & S., forma, near Killin (88), July, 1927, W.Y.

Hycomium flagellare B. & S., Talsarnau (48), April, 1921, c.fr., leg. D.A.J., com. E.C.W. ; Glen Falloch (87), Aug., 1929, W.Y. ; Deville, French Ardennes, April, 1929, F.V. (Bryophyta Arduennae Exsiccata, No. 40).

Cirriphyllum Vaucheri (B. & S.) Loeske and Fleisch., near Sefinen-Lütschine, Bernese Oberland, Switz., July, 1913, P.G.M.R. (83).

Eurhynchium cirrosum Jur., Ben Lawers (88), July, 1927, J.B.D.

E. piliferum B. & S., Burghwallis (63), Sept., 1929, S.P.R.

E. speciosum (Brid.) Milde, Eger, Heves, Hungary, April, 1927, leg. A. Bartha, com. A.B.

E. abbreviatum Schpr., Cornhill (68), Feb., 1929, J.B.D. ; near Newent (33), Dec., 1913, leg. D.A.J., com. E.C.W.

E. pumilum Schpr., Kingswood (17), May, 1929, E.C.W. ; Colvil Elved (44), March, 1929, R.J. "The latter is not a *Eurhynchium*, but *Philonotis capillaris* mixed with *Fissidens bryoides*." J.B.D.

E. myosuroides Schpr., Fairbourne (48), July, 1919, A.S. ; var. *rivulare* Holt, River Falloch (87), Aug., 1929, J.B.D. and W.Y.

E. myurum Dixon, Ben Lawers (88), July, 1898, W.Y. ; (*Isothecium viviparum* (Neck) Lindb.) near Diosgyör, May, 1928, A.B.

E. circinatum B. & S., Abbotsbury Priory (9), June, 1928, E.C.W.

E. strigosum B. & S., Peira Cava, Alpes Maritimes, France, April, 1928, C.H.B.

E. striatum (Schreb.) Schpr., Schönenberg, Bröltal, Rheinland, Germany, Dec., 1928, A. Schumacher.

E. meridionale De Not., Portland (9), May, 1928, leg. H.H.K., J.B.D. and D.A.J., com. J.B.D. and D.A.J. ; idem, June, 1928, E.C.W.

E. striatulum B. & S., Caler Glen (76), Oct., 1928, D.G.C. "This is a rather slender form of *Brachythecium rivulare*. The leaves have large, well-defined, decurrent auricles." J.B.D. ; Ebbor Rocks (6), May, 1928, leg. H.H.K. and J.B.D., com. J.B.D.

E. rusciforme Milde, var. *atlanticum* Brid., St. David's (46*), Sept., 1929, R.J.

E. murale Milde, var. *complanatum* B. & S., Gordale Beck (64), Sept., 1927, D.G.C. "This hardly seems to agree with Limpricht's description :—'Leaves smaller, acuminate, scarcely hollowed.' " J.B.D. "I think this is correct. The complanate habit is the most important character." H.N.D.

E. confertum Milde, Ewell (17), Sept., 1917 and Patcham (14), Sept., 1920, c.fr., A.S.

E. megapolitanum Milde, Pagham Beach (13), May, 1928, E.C.W.

Sematophyllum demissum Mitt., Dolgelly (48), June, 1929, R.J.

S. micans Braithw., near Rosthwaite (70), May, 1929, C.H.B.

Plagiothecium depressum (Bruch) Dixon, f. *cavernicola*, between Klotildliget and Pilisszántó, Pest, Hungary, May, 1928, A.B.

P. elegans Sull., Dunkery Beacon (5), July, 1929, E.C.W.

P. piliferum (Swartz) B. & S., Haga Park, Stockholm, Sweden, *loc. class.*, June, 1928, L.L.

P. pulchellum B. & S., Stonethwaite (70), June, 1929, C.H.B.

P. denticulatum B. & S., var. *majus* Boul., Ben Lawers (88), July, 1929, J.B.D.; var. *obtusifolium* H. & T., Ben Lawers (88), July, 1929, J.B.D. "Apparently correct, but very abnormal, owing, perhaps, to the unusual conditions." W.R.S. "This is one of the characteristic Perthshire forms of the var." H.N.D.

P. silvaticum B. & S., var. *orthocladum* Schpr., Am Binnein (Stobinian) (88), Aug., 1929, W.Y. "This seems to agree fairly well with Rev. D. Lillie's plant from Caithness (see 'Handbook') but I am doubtful about it." J.B.D. "It is very difficult to separate robust and sterile plants of *P. denticulatum* from *P. silvaticum*. I am inclined to see in this an erect, bog form of *P. denticulatum*. The cells, though large, are not very wide in proportion to their length, and the margins are usually quite distinctly recurved, here and there." H.N.D.

P. Ruthei Limpr., var. *rupicola* Limpr., Monschau, Eifel, Germany, June, 1929, E.B. (teste Loeske).

P. Roeseanum B. & S., Herrenstrunden, Rheinland, Germany, Oct., 1929, E.B.

Amblystegium Juratzkanum Schpr., Brieselang-Wald, Berlin, Germany, May, 1907, L.L.

A. irriguum B. & S., var. *spinifolium* Schpr., Dripping Well, Portluney Cove (2), July, 1929, D.G.C. "This plant is too slender, and the leaves have too weak and ill-defined a nerve and the cells too long for *A. irriguum*. I would say it is *Eurhynchium Teesdalei* Schpr." J.B.D.; Laubach, Hesse, Germany, July, 1908, leg. Roth, com. P.G.M.R.

A. fluviatile B. & S., R. Wharfe, Boston Spa (64), Sept., 1929, S.P.R.

A. filicinum De Not., f. *falcatula* Warnst., Kaprunertal, Salzburg, Austria, covering trunks and limbs of trees, June, 1929, L.B.C.T. "A slender form from an unusual habitat. I cannot say whether it is the forma *falcatula* Warnst., which is described as 'büschelartig'." J.B.D. "This is remarkable for its habit and habitat. It is not quite the f. *falcatula* as I have it (though I have not an authentic specimen). I should be inclined to distinguish it as f. *arboricola*." H.N.D.; var. *Whiteheadii* Wheldon, Ross Links (68), June, 1928, J.B.D.

Hypnum riparium L., Amberley (13), Sept., 1928, E.C.W.; (*Leptodictyum riparium* (L.) Warnst., Rheinberg, Brandenburg, Germany, July, 1917, J.W.; var. *longifolium* Schpr., near Eaglesham (76), Oct., 1928, D.G.C. "This is not *H. riparium*, but one of the *Harpidium* group." J.B.D. "It is *H. fluitans* L., near the var. *gracile* Boul." W.R.S.; near Ocsa, Pest, Hungary, Sept., 1928, A.B.

H. elodes Spruce, Ross Links (68), June, 1928, J.B.D.; idem, June, 1929, leg. J.B.D. and W.C.M., com. W.C.M.

H. polygamum Schpr., var. *stagnatum* Wils., Askham Bog (64), July, 1915, H.S.; Holy Island (68), Aug., 1928, J.B.D.

H. stellatum Schreb., Stoborough Heath (9), June, 1928, E.C.W.; (*Chrysophyllum stellatum* (Schreb.) Leoske), Pétfürdő, Veszprém, Hungary, June, 1926, A.B.; var. *protensum* Roehl., Stoborough Heath (9), June, 1928, E.C.W.; near Buxton (57), Aug., 1928, S.P.R.; (*Campylium protensum* (Brid.) Kindb.), Schönenberg, Bröltal, Rheinland, Germany, April, 1929, A. Schumacher.

H. chrysophyllum Brid., Rosses Point, Sligo (I. 28), Sept., 1928, leg. C.H.B. and A.S., com. A.S.

H. hispidulum Brid., var. *Sommerfeltii* Myr., Terrington Car (62), April, 1918, H.S.

H. Sendtneri Schpr., Skipwith Common (64), Oct., 1929, W.B. "Four packets of this gathering are *H. vernicosum* Lindb. The remainder is correct." W.R.S.

H. Wilsoni Schpr., Ross Links (68), Sept., 1928, J.B.D. and W.C.M.

H. lycopodioides Schwaegr., Ross Links (68), June, 1928, J.B.D. and W.C.M.

H. fluitans L., June, 1929, C.H.B.; var. *Jeanbernati* Ren. (*Drepanocladus fluitans*, f. *Jeanbernati* Ren.), Kronensee, Wahner Heide, Rheinland, Germany, May, 1928, A. Schumacher; near var. *atlanticum* Ren., f. *elongata*, Corfe (9*),

June, 1929, C.H.B. "Not quite typical." W.R.S.; var. *gracile* Boul., Studland Heath (9*), June, 1929, C.H.B.; var. *Robertsiae* Ren., Studland Heath (9*), June, 1929, C.H.B.; Denbigh Moors (50), Sept., 1929, E.A.; group *falcatum* Ren., near Builth Wells (42), Aug., 1929, R.J. "near var. *ovale* Ren." W.R.S.; var. *falcatum* Schpr., Studland Heath (9*), June, 1929, C.H.B.

H. exannulatum Gümbl., Studland Heath (9*), June, 1929, C.H.B.; Lawers (88), July, 1929, C. A. Cooper. "This is a form of *H. uncinatum* Hedw." W.R.S.; Meal-na-Saone (88), July, 1906, W.Y. "A pale form of the var. *purpurascens* Schpr." W.R.S.; var. *pinnatum* Boul., near Wareham (9*), June, 1929, C.H.B.; (*Drepanocladus fluitans*, var. *exannulatum* Ren.), Crunwre (45), March, 1920, R.J. "This is *H. aduncum* var. *intermedium* Schpr. It is readily distinguished from all forms of *H. fluitans* by its entire leaves." W.R.S.; var. *brachydictyon* Ren., Cader Idris (48), June, 1929, R.J. "This is *H. vernicosum* Lindb." W.R.S.; Meall-nan-Tarmachan (88), July, 1929, J.R.L.

H. uncinatum Hedw., Twiston (59), July, 1927, A.T.; (*Drepanocladus uncinatus* Warnst.), St. Andreasberg, Harz, Germany, July and Aug., 1922, J.W.

H. vernicosum Lindb., Mochras (48), Aug., 1929, P.G.M.R.; Rimington Moor (64), May, 1928, A.T.; Grasmere (69), June, 1929, C.H.B.

H. revolvens Swartz, (*Drepanocladus revolvens*, f. *fallax* Loeske), Veresegyház, Pest, Hungary, July, 1928, leg. T. Rosenberny, com. A.B. "I do not know the f. *fallax*, but this plant is very similar to, if not identical with, the plant known by us as *H. intermedium* Lindb. The continental botanists have dropped this species, I think rightly, for to quote Mr. Dixon (Handbook, Ed. 3, p. 523), every transitional form may be found." W.R.S.

H. intermedium Lindb., Drybrook (34), Oct., 1929, leg. H.H.K. and D.A.J., com. D.A.J. "This agrees quite well with a specimen so named by S. O. Lindberg, the author of the species." W.R.S.; Radnor Forest (43), June, 1929, R.J. "This is *H. vernicosum* Lindb., a new record for v.c. 43. The red line of cells at the base of the leaf is well shown." W.R.S.

H. decipiens Limpr., near Franz Josef's Haus, Gross Glockner, Austria, June, 1929, L.B.C.T. "This is *H. sulcatum* Schpr." W.R.S.

- H. falcatum* Brid., Sand's End (62), May, 1929, W.B.
- H. incurvatum* Schrad., forma, Mont Dore, Auvergne, France, May, 1928, C.H.B.
- H. cupressiforme* L., var. *filiforme* Brid., Glen Falloch (87), Aug., 1929, W.Y.; var. *tectorum* Brid., Nantcol Ravine, Llanbedr (48), April, 1915, leg. J. C. Wilson, com. D.A.J.
- H. Vaucheri* Lesq. (*Stereodon Vaucheri* (Lesq.) . . .), Kyrkberget, Sandvik, Lycksele Lappmark, Sweden, July, 1924, C.S.
- H. imponens* Hedw., Balerno (83), Sept., 1912, leg. J. McAndrew, com. W.Y.; Kemping Moss (68), June, 1929, J.B.D.
- H. Patientiae* Lindb., R. Wye, Erwood (42), Aug., 1929, R.J.
- H. pratense* Koch, Birkenwerder, Berlin, Germany, June, 1926, L.L.
- H. revolutum* Lindb., Tounot, St. Luc., Valais, Switz., June, 1914, P.G.M.R.
- H. hamulosum* B. & S., Cam Creag, Killin (88), July, 1929, J.R.L.
- H. callichroum* Brid., Ben More (88), Aug., 1929, J.B.D.; Ben Doireann (97), Aug., 1929, W.Y.; Ben Lawers (88), July, 1929, W.C.M.; Whistlefield (99), June, 1929, J.R.L.
- H. Bambergeri* Schpr., Ben Lawers (88), July, 1929, J.B.D.
- H. molluscum* Hedw., forma, Am Binnein (Stobinian) (88), Aug., 1929, J.B.D.; var. *condensatum* Schpr., Ben Lawers (88), July, 1929, J.B.D.; Falls of Falloch (87), May, 1929, J.R.L.
- H. crista-castrensis* L., Patterdale (69), Aug., 1908, leg. C. A. Cheetham, com. W.H.B.; near Killin (88), July, 1910, W.Y.
- H. dilatatum* Wils. (*Limnobium dilatatum* Vent. and Bott.), Grasmere (69), June, 1929, C.H.B.
- H. arcticum* Somm., Ben Lawers (88), July, 1927, J.B.D.; idem, July, 1929, H.N.D. and W.C.M.
- H. ochraceum* Turn., Sand's End (62), May, 1929, W.B. "This is not *H. ochraceum*, but belongs to the *Harpidium* group." J.B.D. "It is a decayed specimen of *H. fluitans* L." W.R.S.; var. *flaccidum* Milde, Llangurig (47*), Aug., 1929, R.J.
- H. stramineum* Dicks., Twiston Moor (59), Sept., 1928, A.T.; Colinward (I. 39), April, 1929, W.R.M.

H. trifarium W. & M., near Ben Chuirn (88), Aug., 1929, D.A.J. ; Cam Creag, Killin (88), July, 1929, W.R.M. ; Croban, Killin (88), July, 1929, W.C.M.

H. cordifolium Hedw., near Ford (68), Oct., 1929, J.B.D.

H. sarmentosum Whal., Ben More (88), July, 1927, W.Y.

H. cuspidatum L., Catlow, near Nelson (59), May, 1929, c.fr., A.T.

Hylocomium umbratum B. & S., Ceunant Llenyrch, Maentwrog Valley (48), 1922, leg. D.A.J., com. E.C.W.

Hyl. pyrenaicum Lindb., near Ulmer Hütte, Langen, Tirol, Austria, July, 1928, leg. C.V.B.M. and J.B.D., com. J.B.D. ; Bussenwald, Sefinenthal, Bernese Oberland, Switz., July, 1913, P.G.M.R. (103).

Hyl. brevirostre B. & S., Dôl-y-Cae, Dolgelly (48), Aug., 1928, S.P.R. ; Horner Wood, near Porlock (5*), July, 1929, E.C.W.

Hyl. loreum (Dill.) B. & S., near Boxberg, Waldbröl, Rheinland, Germany, March, 1929, c.fr., A. Schumacher.

Hyl. triquetrum B. & S., Schönenberg, Bröltal, Rheinland, Germany, April, 1929, c.fr., A. Schumacher.

Hyl. rugosum De Not., Meall-nan-Tarmachan (88), July, 1929, J.R.L.

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

Arranged according to Engler and Prantl.

("Pflanzenfamilien," Ed. 2.).

Dicranella Hookeri (C. Müll.) Card., forma *elongata* Kaal, Possession Island, Crozetgruppen, Ship Cove, Dec., 1907, leg. Ring and Raknes, det. Kaalaas, com. J.L., ex herb. Univ. Osloensis.

D. heteromalla (L.) Schpr., Cold Run, Cass, W. Virginia, U.S.A., Nov., 1927, F.W.G.

Holomitrium calycinum (Sw.) Mitt., Zacuapan, Vera Cruz, Mexico, no date, leg. C. A. Purpus, det. and com. E.B.B.

Leucobryum glaucum (L.) Schpr., Cold Run, Cass, W. Virginia, U.S.A., Dec., 1927, c.fr., F.W.G.

Weisia Andrewsii Bartr., N. of San Antonio, Texas, U.S.A., May, 1928, leg. Mrs. E. A. Harris, det. and com. E.B.B. "This recently described species is closely allied to *W. crispata* C.M., but differs in the larger size, broader leaves, and larger spores (.018-.023 mm.). It is probable that all the plants from the U.S.A. hitherto determined as *W. crispata* belong to this species." H.N.D.

W. viridula (L.) Hedw., Cass, W. Virginia, U.S.A., Spring, 1927, F.W.G.

Hyophila validinervis Card. and La Varde, Pulney Hills, Indes Anglaises, Jan., 1927, leg. and com. Rev. Père Foreau, com. J.C. "No doubt correct, but I see nothing whatever to separate it from *H. involuta* (Hook.). The nerve in the latter is *not* excurrent in a long mucro, as stated in the description of *H. validinervis*." H.N.D.

Tortula Geheebiaeopsis (C. Müll.) Broth., Possession Island, Crozetgruppen: Doctor's Bay, Jan., 1908, leg. Ring and Raknes, det. Kaalaas (No. 24), com. J.L., ex herb. Univ. Osloensis. "This was published as *Barbula geheebiaeopsis* by C. Müller in Engler's Bot. Jahrb., 1883, p. 80, and Forchungsreise S.M.S. Gazelle, 1889, p. 23. Its position has been much in dispute. Paris (Index) placed it under *Geheebia* as *G. Muelleri*. Kaalaas in his note on this plant (Bryophyta aus den Crozetinseln, II., in Nyt Magazin for Naturvidensk, L. II., 1912) refers to the structure of the nerve, in section

showing four median guide cells and an upper and lower band of stereids. This at once put me on the track, and it is without any question a *Leptodontium*; it is similar to several species, and not far from the New Zealand *L. interruptum* (Mitt.) Broth., which, however, differs in the shorter, more rigid stems, shorter and wider leaves, especially in the acumen, less toothed margin, and nerve smooth at the back; here it is muriculate through nearly all its length. It must be known as *Leptodontium Geheebiaeopsis* (C.M.) Dixon., comb. nov." H.N.D.

Rhodobryum ontariense (Kindb.) Paris, Cass, W. Virginia, U.S.A., Sept., Nov. and Dec., 1927, three gatherings, (M.527, 837 and 889), F.W.G. M.527 is correctly named. M.889 is perhaps referable here, but is really intermediate between *R. ontariense* and *R. roseum*. M.837 is incorrect. It is *R. roseum* (Weis) Limpr. *R. ontariense* is a poor species, but the characters, such as they are, are not here,—stout cuspidate points to the leaves, mostly formed by the nerve; dense comal tuft, very pale capsule, strongly curved neck." H.N.D.

Leucolepis acanthoneura (Schwaegr.) Lindb., Santa Rosa Canyon, Sonoma Co., California, U.S.A., 1898, leg. M. S. Baker, det. and com. E.B.B.

Mnium punctatum L., var. *elatum* Schpr., Cass, W. Virginia, U.S.A., May, 1928, F.W.G. "This does not appear to me to differ from the type in anything but the robust habit. I should not refer it to the var. *elatum*." H.N.D.

Hypnodendron Reinwardtii (Hornsch.) Lindb., Tjibotoe, Java occid., 1929, leg. Veldhuis, det. Fleischer, com. F.V. (No. 9569).

Aulacomnium androgynum (L.) Schwaegr., c.fr., Bohemian Grove, Sonoma Co., California, U.S.A., Aug., 1906, c.fr., leg. W. A. Setchell, det. and com. E.B.B.

Anacolia Menziesii (Turn.) Par., Whidby Island, Washington State, U.S.A., no date, leg. N.L. Gardner, det. and com. E.B.B.

Macromitrium Blumei Nees, Bandoeng, Java occid., 1928, leg. Veldhuis, det. Fleischer, com. F.V. (No. 8860).

Climacium americanum Brid., Greenbank, W. Virginia, U.S.A., March, 1929, F.W.G.

Girgensohnia ruthenica (Weinm.) Kindb., Whidby Island, Washington State, U.S.A., leg. N. L. Gardner, det. and com. E.B.B.

Hedwigia albicans (Web.) Lindb. (*H. ciliata* Ehrh.), Cass, W. Virginia, U.S.A., Spring 1928, F.W.G.

Pseudobraunia californica (Lesq.) Broth., Oak Run, California, U.S.A., May, 1894, leg. F. P. Nutting, det. and com. E.B.B.

Forstroemia trichomitria (Hedw.) Lindb., Cold Run, Cass, W. Virginia, U.S.A., Dec., 1927 and Jan, 1928, F.W.G.

Dendroalsia abietina (Hook.) E. G. Britt., Rosa Canyon, Sonoma Co., California, U.S.A., 1898, leg. M. S. Baker, det. and com. E.B.B.

Leucodon julaceus (L.) Sull., Long Creek, Charlotte, N. Carolina, U.S.A., Oct., 1927, F.W.G.

Aerobryopsis longissima (Doz. & Molk) Fleisch., Tjibitoe, Java occid., 1928, leg. Veldhuis, det. Fleischer, com. F.V. (No. 8813).

Neckera Menziesii Hook., Burney Falls, California, U.S.A., May, 1894, leg. M. S. Baker, det. and com. E.B.B.

Neckeropsis obtusata (Mont.) Broth., Phu-tu-son, Tonking, Indo Chine Françaises, 1908, leg. Ch. d'Alleizette, det. Thériot and De la Varde, com. J.C.

Thamnium allegheniense (C. Müll.) Bry. Eur., Greenville and Alderson, W. Virginia, U.S.A., Nov., 1927 and Oct., 1928, F.W.G.

Thelia asprella Sull., Long Creek, Charlotte, N. Carolina, U.S.A., Oct., 1927, F.W.G.

Fabronia Nietneri C. Müll., Bandoeng, Java occid., 1929, leg. Veldhuis, det. Fleischer, com. F.V. (No. 9865).

Anomodon attenuatus (Schreb.) Hueben., Cass, W. Virginia, U.S.A., Dec., 1928, F.W.G.

Claopodium Whippleanum (Sull.) Ren. & Card., Whidby Island, U.S.A., no date, leg. N. L. Gardner, det. and com. E.B.B.

Thuidium peruvianum Mitt., Atahuacana, Spirito Santo, Bolivia, June, 1909, leg. O. Buchtien, com. P.G.M.R. "I am very doubtful about this. My specimens have all the stem leaves large, more or less spreading, and longly acuminate; and it is so described by Mitten. Here they are small, closely adpressed and shortly acuminate." H.N.D.

T. cymbifolium (Doz. & Molk.) Bry. Jav., Tjibitoe, Java occid., 1928, leg. Veldhuis, det. Fleischer, com. F.V. (No. 9521).

Drepanocladus aduncus (Hedw.) Mönkem. (*Hypnum aduncum* Hedw.), var. *flexilis* Ren. Note:—Some of the packets of the plant from Mt. St. Hilaire, Montreal, Canada, Aug., 1912, leg. H. Dupret (284), det. Best, com. P.G.M.R., which were distributed last year and reported on as being a weak form of *Hypnum exannulatum* Gumb. (See Report, 1928, p. 119), have since been found to contain also a form of *H. uncinatum* Hedw., mixed with the plant named as above. Herr Loeske, however, is of opinion that the slender plant which is the principal constituent is really a form of the protean *D. aduncus*, and that the original determination was more nearly correct. Mr. Sherrin, on reconsideration, is inclined to accept this view, though he maintains that *H. exannulatum* was also present, at least in some of the packets.

Brachythecium subplicatum (Hampe) Jaeg., Crozet Islands, 1907-8, leg. Ring and Raknes, det. Kaalaas, com. J.I., ex herb. Univ. Osloensis.

B. salebrosum (Hoffm.) Bry. Eur., Clawson, Pocahontas Co., and Cass, W. Virginia, U.S.A., Nov., 1927, F.W.G.

B. asperrimum Mitt., Whidby Island, Washington State, U.S.A., 1898, leg. N. L. Gardner, det. and com. E.B.B.

B. plumosum (Sw.) Bry. Eur., Cold Run, Cass, W. Virginia, U.S.A., Nov., 1927, F.W.G.

Bryhnia graminicolor (Brid.) Grout, St. Bruno, near Montreal, Canada, Aug., 1910, leg. H. Dupont, com. P.G.M.R.

Eurhynchium strigosum (Hoffm.) Bry. Eur., Clawson, Pocahontas Co., and Cass, W. Virginia, U.S.A., Nov., 1927, F.W.G.

E. oreganum (Sull.) Jaeg., near Victoria, Brit. Columbia, Canada, Aug., 1926, leg. F.A.Mc.F., det., J. Bailey, com. P.G.M.R.

Entodon brevisetus (Hook. & Wils.) Jaeg., Cass, W. Virginia, U.S.A., Spring and Dec., 1928, and April, 1929, F.W.G.

Heterophyllum Haldanianum (Grev.) Kindb., Sendai, Japan, Oct., 1911, leg. E. Iisiba, com. P.G.M.R.

Acroporium hermaphroditum (C. Müll.) Fleisch., Tjibitoe, Java occid., 1928, leg. Veldhuis, det. Fleischer, com. F.V., (No. 9576).

Pylaisia Schimperii Ren. & Card., Long Creek, Charlotte, N. Carolina, U.S.A., Oct., 1927, F.W.G.

Hypnum circinale Hook., Whidby Island, Washington State, U.S.A., 1898, leg. N. L. Gardner, det. and com. E.B.B.

H. imponens Hedw., Cheat Mt., Cass, W. Virginia, U.S.A., Oct., 1927, F.W.G.

H. subimponens Lesq., Seattle, Washington State, U.S.A., no date, leg. N. L. Gardner, det. and com. E.B.B.

Ectropothecium regulare (Brid.) Jaeg., Cameroons, W. Africa, Nov., 1890, leg. P. Dusén, com. P.G.M.R.

E. intorquatum (Doz. & Molk.) Jaeg., Tjibitoe, Java occid., 1929, leg. Veldhuis, det. Fleischer, com. F.V. (No. 10063).

Hypnum crista-castrensis L. (*Ptilium crista-castrensis* De Not.), Cass, W. Virginia, U.S.A., Aug., 1927, F.W.G.

HEPATICS.

EUROPEAN (British and Continental).

Tessellina pyramidata (Willd.) Dum., Kisteteny, Hungary, May, 1925, A.B.

Riccia crystallina L., on dried mud of pond, Bramham (64), July and Aug., 1929, W.H.B.

Riccia fluitans L., Chingford, Epping Forest (18), Oct., 1927, D.G.C. ; also, Wiehlgebiet, Aug., 1927, A. Schumacher.

Grimaldia fragrans (Balb.) Corda, Cressera nr. Lugano, Switz., Feb., 1923, P.G.M.R.

Reboulia hemisphaerica (L.) Raddi, Cseszuek, Hungary, June, 1928, A.B.

Conocephalum conicum (L.) Dum., Parafurdo, Hungary, Aug., 1926, A.B.

Preissia quadrata (Scop.) Nees, Pilisszentwan, Hungary, May, 1927, A.B.

Marchantia polymorpha L., Stanklin Pool, (37), June, 1929, P.G.M.R. ; also, Rheinland, Sept., 1929, A. Schumacher.

Aneura palmata (Hedw.) Dum., Waren Burn (68), March, 1929, J.B.D.

Metzgeria conjugata Lindb., Glen Falloch (87), Aug., 1929, W.Y.

M. hamata Lindb., Killin (88), June, 1901, W.Y. ; also, Brown Ghyll (69), May, 1908, J. A. W. and A.W. ; com. H.A.H.

M. pubescens (Schrank) Raddi, Meal-na-Saone (88), July, 1903, W.Y. ; also, Paradfurdo, Hungary, July, 1928, A.B.

Pallavicinia Lyellii (Hook.) Gray, Harrison's Rocks, Eridge (14), Aug., 1917, W.E.N.

Pellia Fabbronia Raddi, Parad, Hungary, Aug., 1928, A.B. ; var. *lorea* (Nees), Leckhampton (33), Sept., 1929, D.A.J. and F.E.M.

Blasia pusilla L., Lochain na Lairige (88), Aug., 1929, E.B. ; also, Leckhampton (33), Sept., 1929, D.A.J. and F.E.M. ; Glen Falloch (87), Sept., 1929, W.Y. ; and Rheinland, Aug., 1929, A. Schumacher.

Fossombronia Wondraczeki (Corda) Dum., Vendée, France, April, 1928, J.C.

Gymnomitrium concinnatum (Lightf.) Corda, Ben Lawers (88), May, 1929, D.G.C. ; also, Ben Doireann (97), Aug., 1929, W.Y.

G. varians (Gottsche) Schiffn., nr. summit of Ben Douran, (98*), Aug., 1929, D.P., W.Y. and D.A.J.

Marsupella Funckii (Web. et Mohr.) Dum., Dolgelly (48), July, 1925, D.A.J. and F.E.M.

M. emarginata (Ehrh.) Dum., Westfalen, Aug., 1929, A. Schumacher.

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

M. aquatica (Lindenb.) Schiffn., rocks in stream, Cwm Bychan (48), Jan., 1927, D.A.J. and P.G.M.R.

M. Sullivantii (De Not.) Evans, track to mine, Ben Lui (88), Aug., 1929, D.A.J.

M. Jörgensenii Schiffn., by River Irfon (42), H.H.K., J.B.D. and D.A.J., com. D.A.J. and J.B.D.

Alicularia Geoscyphus De Not., Mitcheldean (34), June, 1928, W.E.N., H.H.K., and D.A.J., com. D.A.J.

Aplozia sphaerocarpa (Hook.) Dum., Holme Moss (63), March, 1928, W.H.B.

A. cordifolia (Hook.) Dum., Ben Lawers, (88), May, 1929, D.G.C.

Jamesoniella Schraderi (Mart.) Schiffn., Wigpool Common, Forest of Dean (34*), Oct., 1929, D.A.J. and H.H.K.

J. Carringtoni (Balf.) Schiffn., Ben Chuirn (88), Aug., 1929, A.M.S., D.P., C.V.B.M. and D.A.J., com. D.A.J.

Anastrophyllum Donianum (Hook.) Steph., summit of Ben Douran (98), Aug., 1929, D.P., W.Y., and D.A.J., com. D.A.J. ; also, Ben Douran (98), Aug., 1929, J.B.D.

Gymnocolea inflata Dum., forma *laxa* Nees, Simonswood Moss (59), July, 1903, J.A.W., com. H.A.H.

Lophozia longidens (Lindb.), Macoun, Aviemore (96), July, 1920, H.H.K. and W.E.N.

L. incisa (Schrad.) Dum., var. *inermis* K. Müll., Rheinland, May, 1929, A. Schumacher.

L. quinquedentata (Huds.) Cogn., Killin (88), July, 1900, W.Y. ; also, Ardennes, April, 1929, F.V.

L. lycopodioides (Wallr.) Cogn., Argentières, France, July, 1922, H.H.K. and W.E.N.

L. barbata (Schmid.) Dum., Kisapati, Hungary, June, 1928, A.B. ; also, Rheinland, Nov., 1927, A. Schumacher.

Anastrepta orcadensis Schiffn., Loch Lomond (99), April, 1926, J.R.L.

Plagiochila asplenioides (L.) Dum., Csesznek, Hungary, June, 1928, A.B. ; also, Ardennes, April, 1929, F.V. ; var. *major* forma *subintegerrima*, Dulverton (5), Dec., 1918, W.W. ; var. *minor* (Lindenb.) on trees, Killin (88), July, 1929, E.A. ; also, Killin, (88) July, 1900, W.Y.

P. punctata Tayl., var. *minuta* Breb., Tyndrum (88), July, 1903, W.Y.

Pedinophyllum interruptum (Nees) Pears., Glencar, Sligo, (I. 29), Sept., 1928, J.B.D. ; also, Glencar (I. 29), W.Y.

Leptoscyphus Taylora Mitt., Glen Falloch (87), May, 1929, J.R.L.

L. anomalus (Hook.) Mitt., Slieve Donard (I. 38), Aug., 1928, W.Y. " This is *L. Taylora* ; leaf cuticle coarsely verrucose " H.H.K. ; also, Niederrhein, April, 1929, A. Schumacher.

Chiloscyphus polyanthus (L.) Corda, var. *fragilis* (Roth.) K. Müll., Ben Lawers (88), May, 1929, D.G.C.

Saccogyna viticulosa (Sm.) Dum., Llanbedr (48), Aug., 1929, P.G.M.R. ; also, Glen Falloch (87), Aug., 1929, W.Y. ; also, Middle Ease Gill (60), May, 1905, T.A.W. and A.W., com. H.A.H.

Cephalozia Loitlesbergeri Schiffn., bog near Hir Ynys, Llanfrothen (48*), May, 1911, H.H.K. and D.A.J. (New to Wales).

C. media Lindb., Pateley Bridge (64), Sept., 1928, F.E.M.

C. macrostachya Kaal., among *C. Francisci* (Hook.) Dum., Bog, Llyn Tecwyn Isa, above Talsarnau (48), July, 1913, D.A.J. ; also, Ambersham Common (13), Oct., 1928, H.H.K. and W.E.N. ; and Ford Moss (68), July, 1929, J.B.D. and H.H.K.

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

Cephaloziella Starkii (Roth.) Warnst., Orrock Hill (85), Oct., 1928, W.Y.

Cephaloziella Baumgartneri Schiffn., Vendée, France, Mar., 1928, J.C.

Eremonotus myriocarpus (Carr.) Pears., rocks by stream near Killin (88), Aug., 1929, H.H.K.

Hygrobiella laxifolia (Hook.) Spruce, rocks by stream near Killin (88), Aug., 1929, H.H.K. ; also, Waren Burn (68), Oct., 1929, J.B.D.

Pleuroclada albescens (Hook.) Spruce, Ben Douran (98*), D.P., W.Y. and D.A.J., com. D.A.J. and W.Y. ; also, Ben Lawers (88), July, 1929, J.B.D.

Adelanthus dugortiensis Douin et Lett, Slievemore, Achill Island (I. 27), July, 1928, H.H.K., J.B.D. and W.E.N., com. W.E.N.

Calypogeia sphagnicola (Arnell et Perss.) Warnst., Pitea Lappmark, Aug., 1926, C.S.

Bazzania trilobata (L.) Gray, between Mitter See and Ober See, July, 1923, A.B.

B. tricrenata (Wahl.) Pears., Ben Douran (98), Aug., 1929, J.B.D. ; also, Glen Falloch (87), May, 1929, J.R.L. ; var. *subintegristipula* Schiffn., St. Luc, Valais, Switz., July, 1912, P.G.M.R.

Lepidozia pinnata (Hook.) Dum., Kylee Hills (68), Feb., 1929, J.B.D.

L. reptans (L.) Dum., Rheinland, Oct., 1926, A. Schumacher.

L. Pearsoni Spruce, Holme Moss (63*), March, 1928, W.H.B.

Herberta adunca (Dicks.) Gray, Ben Lawers (88), July, 1929, J.B.D. ; also, Ben Douran (98*), Aug., 1929, H.H.K., F.E.M., D.A.J., com. D.A.J. "A slender form of *H. adunca*" S.M.M.

H. Hutchinsiae (Gottsche) Evans, Cruach Ardran (88), Aug., 1929, J.B.D.

Mastigophora Woodsii (Hook.) Nees, waterfalls, Ben Chuirn, (88), Aug., 1929, D.P., A.M.S., C.V.B.M. and D.A.J., com. D.A.J.

Ptilidium ciliare (L.) Hampe, Rheinland, Dec., 1928, A. Schumacher.

Trichocolea tomentella (Ehrh.) Dum., Glen Falloch (99), May, 1929, J.R.L. ; also, Gleichenberg, Hungary, Sept., 1927, A.B. ; and Böetal, Nov., 1928, A. Schumacher.

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

Scapania subalpina (Nees) Dum., Lochain na Lairige (88), Aug., 1929, E.A.

S. cuspiduligera (Nees) K. Müll., Bloreng (35), June, 1929, H.H.K., J.B.D. and D.A.J., com. J.B.D. and D.A.J.

S. aequiloba (Schwaegr.) Dum., Gleniff (I. 28), Sept., 1928, W.Y.

S. aspera Bernet, Gleniff (I. 28), Sept., 1928, W.Y.

S. nemorosa Dum., Köszeg, Hungary, May, 1924, A.B. ; also, Rheinland, Sept., 1927, A. Schumacher.

S. ornithopodioides (With.) Pears., Ben Chuirn (88), Aug., 1929, D.P., A.M.S., C.V.B.M., and D.A.J., com. D.A.J. ; also, Ben Douran (98), Aug., 1929, W.Y.

S. dentata Dum., var. *ambigua* De Not., Longsett Reservoir (63), May, 1929, D.A.J., W.H.B., and F.E.M., com. F.E.M.

S. uliginosa Dum., King's Seat (88), July, 1929, J.R.L. ; also, Ben Lawers (88), July, 1929, J.B.D.

S. obliqua (Arnell) Schiffn., Ben Lawers (88), July, 1929, J.B.D. ; also, Ben Lui (88), Aug., 1929, W.Y.

S. paludosa K. Müll., Valais, Switz., July, 1913, W.E.N.

Pleurozia purpurea Lindb., Rannock Moor (87), July, 1910, A.W., com. H.A.H.

Madotheca laevigata (Schrad.) Dum., Glencar, Sligo (I. 28), Sept., 1928, W.Y.

M. Thuja (Dicks.) Dum., The Lizard (1), Nov., 1924, W.E.N. ; also, Kinghorn (85), Dec., 1928, W.Y.

M. platyphylla (L.) Dum., Böhönyl, Hungary, July, 1923, A.B. ; also, Rheinland, May, 1928, A. Schumacher.

M. Porella Nees, Vendée, France, Sept., 1929, J.C.

M. Baueri Schiffn., Ardennes, April, 1929, F.V.

Lejeunea cavifolia (Ehrh.) Lindb., Glen Falloch (87), Aug., 1929, W.Y. "This is *L. patens*, the underleaves are smaller than the postical lobe." H.H.K. ; also, Paradfürdo, Hungary, Aug., 1928, A.B.

Marchesinia Mackaii (Hook.) Gray, Cheddar (6), May, 1928, J.B.D., H.H.K. and D.A.J., com. J.B.D. and D.A.J.

Jubula Hutchinsiae (Hook.) Dum., Dolgelly (48), Feb., 1929, R.J.

Frullania germana Tayl., Inchnadamph (108), July, 1921, H.H.K. and W.E.N.

F. Tamarisci Nees, Felsen, Germany, Nov., 1928, A. Schumacher ; also Tapolca, Hungary, April, 1926, A.B. ; var. *robusta* Lindb., Ystrad Ffin (44*), June, 1929, H.H.K., J.B.D., D.A.J., com. D.A.J.

F. dilatata (L.) Dum., Genkeltal (on *Quercus*), April, 1927,
A. Schumacher. "This is *F. Tamarisci*." H.H.K.

F. serrata G., Kodaikanal, May, 1913, leg. R. de Foreau,
com. J.C.

Anthoceros Stableri Steph., Buckland St. Mary (5), Jan.
1925, W.W.

NON-EUROPEAN.

Frullania squarrosa Dum., Sumatra, leg. C. Jacobsen, com.
F.V.

F. nepalensis L. et L., Darjeeling, Himalaya, 1915, leg.
K. K. Gebauer, com. F.V.

BRYOLOGICAL PUBLICATIONS IN 1929.

—o—

(This list also contains some works published in 1928. An asterisk(*) denotes that a copy of the work has been presented to the Library.)

MOSSES.

- AMANN, J.—Bryogéographie de la Suisse. Matériaux pour la flore cryptogamique Suisse, VI., Fasc. 2, pp. 1-453, tabs. 1-32, Zurich, 1928.
Reviewed by Reimers, H.
Reviewed by Allorge, P.
- ANDREWS, A. Le R.—Review. v. Wettstein, F. (vide infra.)
Bryologist, XXXII., 1929, No. 1, p. 14-15.
- ARNELL, H.—Bryum runmarocense Arnell nov. sp. Svensk. Bot. Tidskr., XXII., 1928, pp. 140-144, figs. 3.
Reviewed by Allorge, P.
- BARTRAM, E. B.—Mosses from Western Texas collected by Mr. R. C. Orcutt. Bryologist, XXXII., No. 1, 1929, pp. 7-11, Pl. I.
Notes on Mielichhoferia. Bull. Torr. Bot. Club, LIV., 1927, pp. 31-34, figs. 20.
Additional Costa Rica Mosses. Jour. Wash. Ac. Sc. XIX., 1929, p.p 11-29, figs. 2.
Note. vide Rev. Bryol. Tome II., Fasc. 2, 1929, p. 107.
- BAUER, E.—Musci Europaei Exsiccati, 41 Serie, Nr. 2001-2050, Prague, Nov. 15, 1928.
Reviewed by Reimers, H.
- BERNSTEIN, M.—Versuche über die Lebensdauer der Moossporen. Acta Horti Bot. Univ. Latviensis, III, 1928, pp. 33-38.
Reviewed by Reimers, H.
Reviewed by Allorge, P.
- BERRY, E. W.—Contributions to the Mesozoic flora of the Atlantic Coastal Plain. Bull. Torr. Bot. Club, LV., 1928, pp. 441-448. (Muscites (?) Lesquereuxi Berry).
- BINSTEAD, C. H.—Ceratodon chloropus Brid. in Britain. Jour. Bot. July, 1929, p. 212-213.
Note. vide Rev. Bryol., 1929, p. 111.

- A further account of the Mosses of the French Riviera. *Bryologist*, XXXII., No. 5, 1929, pp. 89-92.
- *BOROS, A.—Die Flora und die pflanzengeographischen Verhältnisse des Nyírség. Sonderab. aus Mathem. u. Naturw. Anzeiger der Ungarischen Akad. d. Wiss., Bd. XLVI., Budapest, 1929, pp. 48-53. (In Magyar and German.)
- *Review. W. Mönkemeyer, Die Laubmoose Europas. Sonderab. aus Botanikai Közlemenyek, Bd. XXVI., 1929, p. 2-3.
- *Das Vorkommen von *Funaria hungarica* in der Ukraine. *The Ukrainian Botanical Review*, IV., Kiev, 1928, p. 34-35. (In German.)
- BROTHERUS, V. F.—*Symbolae Sinicae*; Botanische Ergebnisse der Expedition der Akademie der Wissenschaften in Wien nach südwest China, 1914-1918, IV., Musci. 8vo., pp. 147, Pls. V., Wien, 1929 (J. Springer, R.M., 28.80).
Reviewed by Dixon, H. N.
Reviewed by Allorge, P.
Reviewed by Reimers, H.
- Musci in Beiträge zur Kenntnis der Flora von Borneo. *Mitt. Inst. f. allgem. Bot. in Hamburg*, VII., 1928, Hft. 2, pp. 115-140. (37 spp. nov.).
Review. vide *Rev. Bryol.*, 1928, Tome I, p. 205.
- Musci novi Asiatici. *Rev. Bryol.*, Tome II., Fasc. 1, 1929, pp. 1-16, Pl. I. (33 spp. nov., 1 gen. nov.) (Postumous work).
- CHENEY, L. S.—Notes on interesting Wisconsin mosses, II, *Bryologist*, XXXII., No. 2, 1929, pp. 25-28.
- CHERMEZON, H. et HÉE, A.—Le *Buxbaumia aphylla* L. en Alsace. *Arch. Bot.*, II., Bull. mens., No. 3, pp. 41-47, Caen, 1928.
Reviewed by Meslin, R.
- DEVAUVERSIN, A.—Contribution à la flore bryologique du département de la Marne. *Bull. Soc. Et. Sc. Nat. Reims*, N. S., V., pp. 12-33, Reims, 1927.
Reviewed by Gaume, R.
- DISMIER, M. G.—Note sur la répartition en France du *Phascum mitracforme* (Limpr.) Warnst. *Rev. Bryol.*, 1928, Tome I., No. 2-3, p. 130-131.
- Le *Bryum uliginosum* Br. eur. aux environs de Paris. *Rev. Bryol.*, 1928, Tome I., No. 4, p. 201-202.

- *DIXON, H. N.—Mosses collected in North China, Mongolia and Tibet by Rev. Père E. Licent. Repr. from Rev. Bryol., Tome I., No. 4, 1928, pp. 177-191, figs. 6. (7 spp. nov.).
Reviewed by Reimers, H.
- On a small collection of mosses from the Seychelles. *Annales Bryologici*, II., 1929, pp. 5-9. (3 spp. nov.).
Reviewed by Allorge, P.
Reviewed by Reimers, H.
- Review. Brotherus, V. F. *Symbolae Sinicae Musci*. *Jour. Bot.* 1929, p. 185.
- *Studies in the Bryology of New Zealand, VI. *New Zealand Institute Bulletin*, No. 3, Jan., 1929, pp. 299-372, xviii, Pl. I., (8 spp. nov. et pl. comb. nov.).
Reviewed by Reimers, H.
- Notes on the mosses of the Oxford University Expedition to West Greenland, 1928. *Bryologist*, XXXII, 1929, No. 1, pp. 1-3.
Reviewed by Allorge, P.
Reviewed by Reimers, H.
- Critical mosses. *Rev. Bryol.*, Tome II., Fasc. 1, 1929, pp. 21-29.
- *Mosses collected in Waziristan by Mr. J. Fernandez in 1927. *Jour. Bombay Nat. Hist. Soc.*, XXXIII., 1929, pp. 279-283.
Reviewed by Allorge, P.
Reviewed by Reimers, H.
- *Mosses of Kaw Tao. Repr. from *Jour. Siam Society*, Nat. Hist. Suppl., Vol. VIII., No. 1, 1929.
- DOUIN, C.—L'involucre caulinaire des Hypnacées. *Rev. Gen. Bot.*, XL., 1928, pp. 449-456.
Reviewed by Allorge, P.
- DOUIN, R.—Note teratologique. *Rev. Bryol.*, Tome II., Fasc. 2, 1929, p. 105-106. (Anomaly in *Eurhynchium praelongum* B. E.).
- DUPRET, H.—Three *Brachythecia* hard to separate from one another. *Bryologist*, XXXII., No. 4, 1929, pp. 73-74. (*B. rivulare*, *B. rutabulum* and *B. Starkei*).
- FLEISHER, M.—*Musci frondosi Archipelagi Indici et Polynesiaci* XI., Serie, Nos. 501-550, 1928.
Review. vide *Rev. Bryol.*, 1928, Tome I., No. 2-3, p. 170-171.

- Die Sporenkeimung und vegetative Fortpflanzung der *Ephemeropsis tjibodensis*. *Annales Bryologiei*, II., 1929, pp. 11-20, Pls. II.
Reviewed by Reimers, H.
- FLOWERS, S.—A preliminary list of Utah mosses. *Bryologist*, XXXII., No. 4, 1929, pp. 74-83.
- FRÉMY, Abbé P.—Sur la présence en Normandie de *Fissidens Julianus* (Sav.) Schimp. *Bull. Soc. Linn. de Normandie*, Tome I., 8e serie, pp. 69-70, Caen, 1928.
Reviewed by Allorge, P.
- GARGEANNE, A. J. M.—Karyostrophe bei *Hookeria lucens*. *Annales Bryologici*, II., 1929, pp. 25-34, figs. 2.
- GAUME, R.—Le *Brachythecium plumosum* (Sw.) Br. eur. dans la forêt de Rambouillet (S-et-O.) et sa répartition dans la région parisienne. *Rev. Bryol.*, Tome I., 1928, No. 2-3, pp. 132-134.
- GHOSH, J. C.—Kinetik der Photosynthese bei Pflanzen. Eine theoretische Deutung der experimentellen Ergebnisse Harders über die Kohlensäure-assimilation bei *Fontinalis*. *Jahrb. f. wiss. Bot.*, LXIX., 1928, pp. 572-586, figs. 3.
- GYÖRFFY, I.—*Novitas bryologica*,—V. (*Tetraplodon bryoides*). *Bryologist*, XXXII, 1929, No. 3, pp. 62-64, Pls. III.
- HAGEN, I.—Forarbeider til en Norsk Lövmosflora, XXI., Pottiaceae. *Kgl. Norske Vidensk. Selsk. Skrifter*, 1928, Nr. 3, pp. 96.
(Postumous work completed by HENRIK PRINTZ.)
- HENRY, Le R. K.—The effect of the environment upon mosses. (Summary of a series of articles in *Rev. Gen. Bot.* by M. Adrien Davy de Virville). *Bryologist*, XXXII, No. 4, 1929, pp. 83-87.
- HERZOG, Th.—Drei neue Laubmoosgattungen. *Rev. Bryol.*, 1928, Tome I., No. 2-3, pp. 98-108, figs. 5. (*Valdiviella* Ther. et Herzog, *Pulvinella* Broth. et Herzog & *Ptychophyllum* Dixon et Herzog.).
Microthamnium Mitt. *Die Pflanzenareale* (Hannig u. Winkler), 1 Reihe, Hft. 8, p. 86-87, 1 Carte, Jena, 1928.
Reviewed by Allorge, P.
Reviewed by Reimers, H.
- Bestimmungstabellen der einheimischen Laubmoosfamilien. Jena, G. Fischer, 1929, 8vo., pp. 4, Tab. 2.
Reviewed by Reimers, H.

- HILLIER, L.—Deux mousses nouvelles pour la chaîne du Jura. Rev. Bryol., Tome I., 1928, No. 4, pp. 196-198.
(*Conomitrium Julianum* & *Fissidens bryoides* var. *Hedwigii*.)
- HOLZINGER, J. M.—Corrections for Holzinger's *Musci Acrocarpi* Bor. Am. et Europ. Bryologist, XXXII., No. 3, 1929, p. 61.
- JOVET, P.—Le *Pseudoleskea atrovirens* Br. Eur. aux environs de Paris. Rev. Bryol., Tome II., Fasc. 2, 1929, pp. 101-104.
- KOCH, W.—Die höhere Vegetation der subalpinen Seen und Mooregebiete des Val Piora (St. Gottard-Massif). Zeitschr. f. Hydrol., IV., 1928, pp. 131-175, figs. 6. Aarau.
Reviewed by Allorge, P.
- *KOTILAINEN, M. J.—Über das boreale Laubmooselement in Ladoga-Karelien. Ann. Soc. Zool.-Bot. Fennicae Vanamo Tom. II., N : o 1, 1929, pp. 142, maps, 16.
- LAKOWITZ.—Das Leuchtmoos im Norddeutschen Flachlande. Hedwigia, Bd. LXIX., Nov., 1929, Hft. 5, p. 301-302.
- LAZARENKO, A. S.—Noch eine neue Art der Gattung *Desmatodon* in der Ukraine. Bull. Jard. Bot. Kiev, livr. V-VI., pp. 104-106, fig. 1, Kiev. 1927. (*D. Oxneri* sp. nov.).
Reviewed by Reimers, H.
- Zur Kenntnis der ukrainischen Funariaceen. The Ukrainian Botan. Rev., IV., 1928, pp. 35-37. (In Russian ; German summary.)
Reviewed by Reimers, H.
- Über eine neue Art, *Tortula ferganensis*, aus Zentralasien. Ibid, fig. 1. (In Russian ; German summary.)
Reviewed by Reimers, H.
- LOESKE, L.—*Orthodicranum Allorgei* Amann et Loeske, nov. spec. Rev. Bryol., Tome II., Fasc. 2, 1929, pp. 93-95.
- LOWE, R. L.—Notes on Milbridge mosses. Maine Naturalist, VIII., 1928, p. 51.
Reviewed in Bryologist, XXXII, No. 4, 1929, p. 88.
- MACFADDEN, F. A.—Easter week at Halcyon Hot Springs, British Columbia. Bryologist, XXXII., No. 5, 1929, pp. 100-104. (List of mosses.).
British Columbia the Bryologist's Paradise. Bryologist, XXXII., No. 3, pp. 56-61, 1929.

- MALTA, N.—*Pottia Randii* Kenn. auch im Ostbaltischen Gebiet gefunden. *Acta Horti Bot. Univ. Latviensis* III., p. 61-62, Riga, 1928.
Reviewed by Allorge, P.
Reviewed by Reimers, H.
- Das kritische *Orthotrichum callistomum* Fischer-Ooster aus der Schweiz einem süd-ostasiatischen Typus angehörig. *Acta Horti Bot. Univ. Latviensis*, 1928.
Reviewed by Allorge, P.
Reviewed by Reimers, H.
- MALTA, N. und MEDNIS, K.—Über die Verhältnisse der Sporophytbildung bei *Leucodon sciuroides* in Lettland. *Rev. Bryol.*, 1928, Tome I., No. 4, p. 199-200.
- MALTA, N. und SKUJA, H.—*Cinclidotus danubicus* augtene Daugava. (Der Standort des *Cinclidotus danubicus* in der Daugava (Duna)). *Acta Horti Bot. Univ. Latv.*, III., 1928, pp. 47-54. (In Lettish ; German summary.)
Reviewed by Allorge, P.
Reviewed by Reimers, H.
- MEYLAN, Ch.—Remarques sur quelques muscinées. *Rev. Bryol.*, Tome II., Fasc. 2, 1929, pp. 96-100. (Musci only).
Rectification nomenclaturale. *Bull. Soc. Bot. Geneve*, XX., 1928, p. 457. (*Fissidens Jurensis* for *F. Sanctae Crucis*).
Note. vide *Rev. Bryol.*, Tome II., Fasc. 2, 1929, p. 109.
- MÖLLER, Hj.—A revision of some new species and varieties of *Rhacomitrium* described by N. C. Kindberg from North America. *Rev. Bryol.*, Tome II., Fasc. 2, 1929, pp. 82-86.
- MOXLEY, E. A.—The moss-covered trail. *Bryologist*, XXXII., 1929, p. 12-13. (Sydenham R., Ontario, Canada.).
The moss flora of North Gray County and part of the Bruce Peninsula, Ontario. *Canadian Fld. Naturalist*, XLII., 1928, pp. 194-201.
Mosses of the Bruce Peninsula, Ontario, *Bryologist*, XXXII., No. 4, 1929, p. 84.
A letter from Owen Sound. *Ibid*, p. 99-100.
- MUHLDORF, A.—Zur morphologischen Wertung der unterirdischen Stengelteile bei den höhere organisierten Laubmoosen. *Bull. Fac. Stiinte Cernauti* II., 1928, p. 157, Pl. I.
- NORTON, A. H.—*Pottia Randii* Kennedy at Matinicus, Maine. *Maine Nat.* VIII., 1928, p. 52.

PERSSON, N. P. H.—Tvenne for Danmark nya bladmosser.
Botaniska Notiser, 1929, 2, p. 150. (2 new mosses for
D.).

Några mosslokaler jämte ett par artstudier. Ibid, pp. 229-245.
(A few moss-stations and some studies of spp.).

PITMAN, E. M.—Moss notes from the Pine Tree State. Bryologist,
XXXII., No. 5, 1929, p. 92-93. (I cannot locate this.
L.B.C.T.).

*POTIER de la VARDE, R.—Mousses nouvelles de l'Afrique
Tropicale Française. Diagnoses préliminaires. 6e Note.
Repr. from Revue Bryologique, 1928, Tome I., Fasc. 2-3,
pp. 87-97, Pls. VII.
Reviewed by Reimers, H.

Additions aux mousses de l'Oubangui. Arch. de Bot., III.,
Bull. mens. No. 1, pp. 1-9, figs. 3, Caen, 1929. (Ubangi,
Belgian Congo.).

Mousses nouvelles de l'Asie meridionale. Ann. Cryptogamie
Exot., I., 1928, pp. 279-283, figs. 3.
Reviewed by Reimers, H.

POTIER de la VARDE, R. et FRÉMY, P.—Sur deux mousses
rares observées aux environs de St.-Lô. Notes, Mem. et
Documents publ. par la Soc. Agric. Archéol. et Hist. Nat.
du départem. de la Manche, XL., 119-122, figs. 15, St.-Lô,
1928.
Reviewed by Allorge, P.

REIMERS, H.—Reviews of :—Amann, J. ; Allorge, P. ; Annales
Bryologici Vol. I. ; Annales de cryptogamie exotique Vol.
I. ; Bauer, E. ; Bernstein, M. ; Dismier, M. G. ; Dixon,
H. N. ; Dixon, H. N. et Pottier de la Varde, R. ; Gams, H. ;
Henry, R. ; Herzog, Th. ; Koppe, Fr. ; Lazarenko, A. S. ;
Jensen, C. ; Malta, N. ; Malta, N. & Skuja, H. ; Malta, N.
& Strautmanis, J. ; Naveau R. ; Ochsner, F. ; Papp, C. ;
Pichler, R. ; Potier de la Varde, R. ; Revue Bryologique
serie nouvelle (1928) ; Savicz, L. & V. P. ; Schmidt, H. ;
Thériot, J. ; Timm, R. ; Torcka, V. ; Verdoorn, Fr. ;
Williams, R. S. ; Zerow, D. Hedwigia, Bd. LXVIII,
Hft. 6, Feb., 1929, pp. 71-93.

Reviews of :—Allorge, P. ; Bartram, E. B. ; Bauer, E. ; Born-
müller, J. ; Dixon, H. N. ; Dugas, M. ; Fleischer, M. ;
Grout, A. J. ; Brotherus, V. F. ; Herzog, Th. ; Koppe, F. ;
Lazarenko, A. S. ; Paul, H. ; Potier de la Varde, R. ;
Riehmer, E. ; Schratz, E. ; Thériot, J. ; Verdoorn, Fr. ;
Hedwigia, Bd. LXIX., Hft. 3/4, Sept., 1929, pp. 29-42.

- SAINSBURY, G.—The validity of certain allied species of the moss *Campylopus clavatus* R. Br. Trans. Proc. New Zealand Inst., LIX., Pt. III., 1928, p. 506-507.
- SCHRATZ, E.—Beobachtungen an *Pogonatum nanum* (Schreb.) P.B. und *Pog. aloides* (Hedw.) P.B. Planta Abt. E. VI., 2, 1928, pp. 192-215, figs. 22.
Reviewed by Reimers, H.
- SHERRIN, W. R.—New variety of *Cinclidotus aquaticus* (Jacq.) Br. Eur. Jour. Bot. Sept., 1929, p. 260-261, fig. 1. (*C. aquaticus* var. nov. *strictus*.)
- STEPPUTAT, W.—Serodiagnostische Untersuchungen über die Phylogenie der Laubmoose. Bot. Arch., XXIV., 1929, pp. 354-390, figs. 13.
- STEPPUTAT, W. und ZIEGENSPECK, H.—Morphologische Untersuchungen über die Phylogenie der Laubmoose. Ibid, pp. 1-127.
- THÉRIOT, J.—Musci novi Africani, 2e Note. Bull. Mus. Nat. Hist. Nat. Ann., 1928, pp. 115-118, Pls. 3, Paris, 1928. (3 spp. nov.).
Reviewed by Allorge, P.
Reviewed by Reimers, H.
- Jaffueliobryum* gen. nov. Rev. Bryol., 1928, Tome I., No. 4, pp. 192-195, Pl. I.
Reviewed by Reimers, H.
- Again the genus *Pleurozium*. Bryologist, XXXII., 1929, p. 98-99.
- Une poignée de mousses cambodgiennes. Rev. Bryol., Tome II., Fasc. 1, 1929, pp. 17-20, figs. 3.
- Étude sur *Campylopus concolor* (Hook.) Mitt. et *C. Jamesoni* (Hook.) Mitt. Arch. de Bot., II., Bull. mens. No. 10, pp. 185-188, Caen, 1928.
Note. vide Rev. Bryol., Tome II., Fasc. 2, 1929, p. 110.
Reviewed by Reimers, H.
- Le genre *Pseudoleskeopsis*. Ann. Crypt. Exot., II., 1929, pp. 5-22, figs. 8.
Reviewed by Reimers, H.
- Neu-Caledonische Laubmoose in Schinz, H. Mitt. aus d. Bot. Museum d. Univ. Zürich CXXX., Vierteljahresschrift Naturf.-Gesells. Zürich, LXXIV., 1929, pp. 4, figs. 2.
- Remarques sur quelques mousses du Transvaal, recueillies par H. Junod. Ibid, p. 1.
Reviewed by Reimers, H.

- *TROTTER, L. B. C.—*Encalypta streptocarpa* Hedw. with gemmae. *Bryologist*, XXXII., No. 2, 1929, pp. 35-37, Pl. I.
- Van WERT, M. C.—A sylvan dell near Minnehaha Falls. *Bryologist*, XXXII., No. 4, 1929, pp. 71-73.
- VERDOORN, Fr.—*Bryophyta Arduennae Exsiccata*, Decas III., 1928. Utrecht, 1928.
- v. WETTSTEIN, F.—*Morphologie und Physiologie des Formwechsels der Moose auf genetischer Grundlage*, II. Baur, *Bibliotheca genetica*, X., Leipzig, 1928.
Reviewed by Andrews, A. le R.
- WILLIAMS, R. S.—President's Report—Sullivant Moss Soc., 1928. *Bryologist*, XXXII., 1929, p. 40.
Macromitrium portoricense sp. nov. *Ibid*, p. 69-70, Pl. I.
- GROUT, A. J.—Vermont mosses again. *Bryologist*, XXXII., 1929, pp. 105-107.
- BLAGG, B.—Moss notes from Cold Spring Harbor, Long Is., New York. *Ibid*, p. 107. (*Funaria flavicans* Mx. & *Pleuridium subulatum* (L.) Rab.).
- MACFADDEN, F. A.—James Noble. Obituary. *Ibid*, p. 107.
- MOXLEY, E. A.—Mosses of unusual growth or unusual habitat. *Ibid*, p. 108-109.
- ANDREWS, A. Le R.—Holzinger's No. 663. *Ibid.*, p. 109.
- GRAY, F. W.—*Polytrichum strictum* in W. Virginia. *Ibid*, p. 113-114.
- JENNINGS, O. E.—Review. Grout, A. J., Check List. *Ibid.*, p. 115.

HEPATICS.

- ALLORGE, P.—*Le Plagiochila tridenticulata* (Hook.) Dum. dans les Pyrénées basques. *Annales Bryologici*, II., 1929, pp. 2-4.
Reviewed by Reimers, H.
- C. B. Massalongo 1852-1928. (Obituary and bibliography). *Rev. Bryol.*, Tome I., No. 2/3, 1928, pp. 172-175.
- Revision des travaux parus jusqu'en 1928 sur la flore cryptogamique africaine, III., (suite) Hépatiques. Liste additive. *Ann. de Cryptog. Exot.*, II., 1929, pp. 85-87.

- BARTLETT, E. M.—A comparative study of the development of the sporophyte in the Anthocerotaceae, with special reference to the genus *Anthoceros*. *Ann. of Bot.*, XLII., 1928, pp. 409-430, Pl. VII., figs. 1-9.
- BOYSEN-JENSEN, P. u. MÜLLER, D.—Über die Kohlensäureassimilation bei *Marchantia* und *Peltigera*. *Jahrb. f. wiss. Bot.*, LXX., 4, 1929, pp. 503-511, figs. 5.
- BRINKMAN, A. H.—Hepatics and sites: A short study in the ecology of hepatics. *Bryologist*, XXXII., No. 2, 1929, p. 29-30.
- *BROEKSMIT, T.—Een en ander over het geslacht *Madotheca*. Overgedkt. uit het Nederlandsch Kruidkundig Archief, Jaarg. 1929, Sfl. I, pp. 97-102, figs. 3.
- CAPPELLETTI, C.—Contributo alla Flora epatologica dell'Italia mediterranea. *Nuov. Giorn. Bot. Ital.* XXXIV., 5, 1928, pp. 1275-1280.
- CHALAUD, G.—Le cycle évolutif de *Fossombronia pusilla* Dum. Paris, 1929, Pls. 8, *Rev. Gen. Bot.* XLI., pp. 24-34.
Reviewed by Dugas, M.
Ditto. *Ibid*, XLI., 1929, pp. 95-105, figs. 18.
- CHALAUD, G. et NICOLAS, G.—À propos de la fausse dichotomie du *Metzgeria furcata* Dum. *Rev. Bryol.*, Tome I., 2/3, 1928, pp. 135-136.
La fausse dichotomie de *Metzgeria furcata* Dum. Réponse à M. Ch. Douin. *Bull. Soc. Bot. France*, LXXV., 1928, pp. 768-774, figs. 1-7.
- CHESEBROUGH, M. A.—A study on a Mexican *Riccia*. *Bot. Gaz.*, 1927, 83, 99, 102, figs. 6.
- CLARK, L. & FRYE, T. C.—The liverworts of the Northwest. *Publ. Puget Sound Stat.*, VI., 1928, pp. 145-148. (N. America.).
- CONKLIN, G. H.—Report of the Curator, Hepatic Dept., Sull. Moss Soc. for 1928. *Bryologist*, XXXII., 1929, pp. 21-23.
- DOUIN, Ch.—Les enseignements d'un thalle du *Metzgeria furcata* Dum. *Rev. Bryol.*, Tome II., Fasc. 2, 1929, pp. 87-92, figs. 9.
La "Falsche dichotomie" de Kny n'a jamais existé. *Bull. Soc. Bot. France*, LXXV., 1928, pp. 750-767, figs. 1-22.
- DUGAS, M.—Contribution à l'étude du genre *Plagiochila* Dum. Thèse Fac. Sc. Paris 1928 et *Ann. Sc. Nat. Bot.* 10e sér., 1929.
Reviewed by Reimers, H.

- Review. Chalaud, G. Rev. Bryol., 1929, Tome II., Fasc.1, p. 58-59.
- FRYE, T. C.—The genus *Pleurozium*. Bryologist, XXXII., No. 2, 1929, p. 31.
- GAVAUDIN, P.—Sur la présence du système oléifère dans les organes de multiplication des Jungermanniacées. Compt. Rend. Acad. Sci. Paris, T. CLXXXVI., 1928, pp. 886-888.
- Sur les rapports du vacuome et du système oléifère des Jungermanniacées. Ibid, pp. 163-166, figs. 4.
- Sur la présence d'un champignon parasite dans les anthéridies de *Marchantia polymorpha* et son action sur le gamétogénèse. C. R. Ac. Sc. Paris, CLXXXVII, pp., 995-997, 1928.
- Reviewed by Allorge, P.
- v. GOEBEL, K.—Morphologische und biologische Studien, XII. Malesische Lebermoose. Ann. Jard. Buitenzorg, XXXIX., 1928, pp. 1-110.
- HAYATA, B.—On some of the most remarkable species of Japanese Hepaticae. Bot. Mag. Tokio, XLII., 1928, pp. 181-189. (In Japanese).
- Note. vide Rev. Bryol., 1928, p. 207.
- HERZOG, Th.—*Lepidolaena* Dum. Die Pflanzenareale (Hannig u. Winkler, Jena.), 1 Reihe, Hft. 8, p. 87-88, 1 Carte, 1928.
- Reviewed by Allorge, P.
- Bestimmungstabellen der einheimischen Lebermoosfamilien und -gattungen. Jena (G. Fischer), 1929, 8vo, pp. 6, Tab. 3.
- Reviewed by Reimers, H.
- KASHYAP, S. R.—A new species of *Petalophyllum*, *P. indicum*. Jour. Indian Bot. Soc., VII., 1928, p. 14.
- LILIENSTERN, M.—Physiologische Untersuchung über *Marchantia polymorpha* L. in Reinkultur. Ber. Deut. Bot. Gesells., XLVI., 1928, pp. 370-382, figs. 7.
- MASSALONGO, C. B.—Rivisio critica hepaticarum quas in Republica Argentina Prof. C. Spegazzinius legebat additis speciebus novis, c. 5 tab. Venezia, 1927-1928. Atti R. Istit. Venet., Tome LXXXVII., II., pp. 215-251.
- Reviewed by Allorge, P.
- NICOLAS, G.—Observations sur un endophyte de *Lunularia cruciata* (L.) Dumortier. Ses relations avec une *Pezize Humaria Nicolai* R. Maire. Rev. Bryol., Tome II., Fasc. 1, 1929, pp. 35-40.

- Sur un endophyte de *Lunularia cruciata* (L.) Dum. Compt. Rend. Acad. Sci. Paris, CLXXXVIII., 1929, p. 188-189.
- SCHIFFNER, V.—Über epiphyllle Lebermoose aus Japan nebst einigen Beobachtungen über Rhizoiden, Elateren und Brutkörper. *Annales Bryologici*, II., 1929, pp. 87-106, figs. 8.
- SHOWALTER, A. M.—The chromosomes of *Pellia Neesiana*. Proc. Nat. Acad. Sci., XIV., 1928, pp. 63-66, figs. 10.
- SODERBERG, J.—*Anthelia Juratzkana* (Limpr.) trevis i Vastergotland. *Svensk Botanisk Tidskr.*, 1929, pp. 269-271.
- STEPHAN, J.—Der Einfluss von Lichtqualität und -quantität (einschliesslich Ultrarot) auf das Wachstum der Brutkörper von *Marchantia polymorpha*. *Planta* VI., 3, 1928, pp. 510-518, figs. 4.
- SZEPESFALVY, J.—Lebermoose aus der Umgebung von Budapest und aus dem Pilisgebirge. *Ungar. Bot. Bl.*, XXVII., 1928 (1929), pp. 1-8 (Magyar), pp. 8-12 (German).
- TEODORESCO, E. C.—Sur le protonéma des Marchantiacées. *Arch. Bot.* II., Bull. mens. No. 4, pp. 57-67, figs. 34, Caen, 1928.
Reviewed by Meslin, R.
- *VERDOORN, Fr.—Über einem wichtigen Beitrag zur Kenntnis exotischer Lebermoose. *Extr. des Annales de Cryptogamie Exot.*, Tome II., Fasc. 1, 1929, pp. 69-78.
- *Les Lejeunéacées de la Belgique et du Luxembourg. *Extr. de la Rev. Bryol.*, Tome II., Fasc. 1, 1929, pp. 41-43.
- *Einige morphologische Notizen über *Frullania*. *De Frullaniaceis* VI. *Extr. des Annales du Jardin Bot. de Buitenzorg*, Vol. XL., 1929, pp. 139-145, figs. 2.
- V. Schiffner.—*Expositio plantarum in itinere suo indico annis 1893-4 suscepto collectarum speciminibusque exsiccatis distributarum, adjectis discriptionibus novarum. Series tertia* (No. 1473-2460), *Frullaniaceas* continens. (*De Frullaniaceis* IV.). *Annales Bryologici*, II., 1929, pp. 117-154, figs. 10.
- Revision der von Java und Sumatra angeführten *Frullaniaceae*. *De Frullaniaceis* V. *Ibid*, pp. 155-164. (List of all *Frullanias* found there).
- WEIMARCK, H.—*Ricciocarpus natans* (L.) Corda i Skåne. *Bot. Notiser*, 1929, p. 150.

- *WIGGLESWORTH, G.—A new Californian species of *Sphaerocarpus*, together with an annotated list of the specimens of *Sphaerocarpus* in the Manchester Museum, University of Manchester. Univ. of California Publications in Botany, Vol. XVI., No. 3, pp. 129-137, figs. 10, Berkeley, Calif., U.S.A., 1929. (*Sphaerocarpus Drewei* sp. nov.).
- PITMAN, E. M.—Journeying with lichens and hepatics in Maine. *Bryologist*, XXXII., 1929, p. 110-111.

SPHAGNA.

- BEALS, A. T.—Review. Sherrin, W. R. Handbook of British Sphagna. *Bryologist*, XXXII., 1929, No. 1, p. 14.
- DENISSOW, S. M.—Die örtliche Verteilung der Sphagnum-Arten in der Moosschicht des Torfmooses im Gorkischen Staatsforst. Arb. Gory. Goretzkischen Gelehr. Ges., V., 1928, pp. 54-65. (In Russian; German summary).
- DUCLOS, P.—Découverte du *Sphagnum plumosum* Röhl en Forêt de Fontainebleau. Bull. mens. Ass. Natural. Vallée du Loing, 4, No. 12, p. 81-82, 1928.
- GETMANOW, J. J.—Das Problem des Sphagnums. Torfjan. djelo. Moskau, V., 1928, pp. 157-159, figs. 2. (In Russian).
- *LID, J.—*Sphagnum strictum* Sulliv. and *Sphagnum americanum* Warnst. in Scotland. Jour. Bot., June, 1929, pp. 170-175, figs. 2.
- PICHLER, R.—Mahovi tresetari Hrvatske i Slovenije. (Die Torfmoose Kroatiens und Sloveniens.) Acta Bot. Inst. Univ. Zagrebensis, III., 1928, pp. 1-20, map 1. (In Serbian; German summary).
Reviewed by Reimers, H.
Reviewed by Allorge, P.
- SHELDON, F. J.—Review. Sherrin, W. R., Handbook of British Sphagna. Rev. Bryol., 1928, p. 209-210.
- SHERRIN, W. R.—New Records for Sphagna in Scotland. Jour. Bot., 1929, p. 28.
- SMIRNOVA, Z.—The distribution of *Sphagnum contortum* Schultz and *S. quinquefarium* (Lindb.) Warnst. in U.S.S.R. Annales Bryologici, II., 1929, pp. 107-116, maps. 2.
- ZEROW, D.—Die Torfmoose der Ukraine. Acad. Sci. de l'Ukraine, Mem. Classe Sci. Phys. Mathem., X., 1928, liv. 1, pp. 70, figs. 2, Pls. IV., map 1. (In Russian; German summary).
Reviewed by Reimers, H.
Reviewed by Allorge, P.

BRYOPHYTES.

- ALLORGE, P.—Notes sur la flore bryologique de la Péninsule ibérique, II., Muscinées de la province de Léon. *Rev. Bryol.*, Tome I., No. 2/3, 1928, pp. 137-150. (Hepatics, sphagna & mosses.)
- Ditto, III. Quelques muscinées nouvelles pour le Portugal. *Ibid.*, Tome I., No. 4, 1928, p. 203-204.
Reviewed by Reimers, H.
- Bryotheca iberica*. 2e serie, Nos. 51-100, Espagne. Paris, janvier 1929. *Rev. Bryol.*, Tome II., Fasc. 2, 1929, p. 114.
- Remarques préliminaires sur la flore muscinale des hautes montagnes ibériques. *Compt. Rend. Soc. Biogeogr.*, 1927, pp. 104-106.
- Bryotheca iberica*. Muscinées de l'Espagne et du Portugal récoltées par V. et P. Allorge, déterminées par MM. J. Amann (Lausanne), A. Casares-Gill (La Corogne), G. Dismier (St-Maur), L. Loeske (Berlin), R. P. Luisier, S. J. (La Guardia), R. Naveau (Anvers), R. Potier de la Varde (St. Pair-sur-Mer) et P. Allorge. 1e serie, Nos. 1-50, Espagne. Paris, mai 1928.
Review. vide *Rev. Bryol.*, Tome I., 1928, p. 169-170.
- Reviews of :—Arnell, H. W., Brotherus, V. F., Dixon, H. N., Lazarenko, A. S., Luisier, A., Mönkemeyer, W., Thériot, J., Verdoorn, Fr., Broeksmit, T., Dismier, G., Grout, A. J., Herzog, Th., Jensen, C., Koppe, F., Korczagin, A. A., Kotilainen, M. J., de Litardiere, R. Malta, N., Ochsner, F., Sherrin, W. R., v. d. Wijk, R., Chalaud, G. et Nicolas, G., Loeske, L. *Rev. Bryol.*, 1928, pp. 150-168.
- Reviews of :—Boros, A., Burollet, P. A., Dreesen, P., Korczagin, A. A., Loeske, L., Malta, N u. Skuja, H., Pichler, R., Potier de la Varde, R., Frémy, P., Garjeanne, A. J. M., Schmidt, H., v. d. Wijk, Bernstein, M., Fragoso, G. R., Andres, H., Györffy, I., Dixon, H. N. *Rev. Bryol.*, 1928, pp. 207-221.
- Reviews of :—Brotherus, V. F., Loeske, L., Machado, G. A. L., Amann, J., Armitage, E., Bartram, E. B., Frémy, P., Gams, H. *Rev. Bryol.*, 1929, pp. 48-58.
- Reviews of :—Buch, H., Dixon, H. N., Grout, A. J., Jensen, C. och Medelius, S., Potier de la Varde, R., Thériot, J., Bartram, E. B., Buch, H., Chouard, P. et Prat, H., Hase, O., Koch, W., Gavaudin, P., Rayner, M. C. *Rev. Bryol.*, 1929, pp. 107-113.

- Pierre-Tranquille Husnot 1840-1929. (Obituary & bibliography.). *Rev. Bryol.*, Tome II., Fasc. 2, 1929, pp. 65-70, Pl. I.
- ARMITAGE, E.—The British Bryological Society (winter meeting). *Jour. Bot.*, 1929, p. 64.
- BAUER, E.—Musci Alegrenses récoltées par Ed. M. Reineck et M. J. Czermack en 1897-1899. *Rev. Bryol.*, Tome II., Fasc. 1, 1929, pp. 44-46.
- BROWN, M. S.—Bryophytes of Nova Scotia. Additional List. *Bryologist*, XXXII., 1929, pp. 50-56. (Mosses, hepatics and sphagna).
- BORNMÜLLER, J.—Musci und Hepaticae in "Ergebnisse einer botanischen Reise nach Griechenland im Jahre 1926." *Feddes Repertorium XXV.*, 1928, pp. 336-347.
Reviewed by Reimers, H.
- BURNHAM, S. H.—Supplementary list of the bryophytes of the Lake George Region. *Bryologist*, XXXII., 1929, pp. 94-98. (Hepaticae and musci. Counties Washington and Warren, N.Y.).
- CHOUARD, P. & PRAT, H.—Note sur les tourbières du Massif de Néouvielle (Hautes-Pyrénées). *Bull. Soc. Bot. France*, LXXVI., 1929, pp. 113-130, figs. 4, Pl. I.
Reviewed by Allorge, P.
- CLARA, M.—Rhythmische Periodik—ein Merkmal der lebenden Moose? *Boll. medico*, VII., 1928, pp. 145-148.
- DISMIER, M. G.—*Bryotheca Gallica*, Nos. 226-250. Paris, 1928.
Note. vide *Rev. Bryol.*, Tome I., 1928, p. 223.
Ditto, Nos. 251-275. Paris, 1929.
- *DIXON, H. N. & WAGER, H. A.—New and noteworthy mosses from South Africa. *Trans. Roy. Soc. South Africa*, XVIII., Pt. III., Capetown, 1929, pp. 247-261, Pl. I. (1 gen. nov., 8 spp. nov., 2 comb. nov. and 1 var. nov. mosses. Includes sphagna.).
- DUCLOS, P.—Muscinées cavernicoles de Recluses (Seine-et-Marne). *Bull. Ass. Nat. Vallée du Loing*, 1e année, 1928, pp. 146-151, Moret-sur-Loing.
Reviewed by Allorge, P.
- EHRlich, E.—Die Pflanzen des Bezirkes Friedland.—Hepaticae et musci. *Mitt. Ver. Naturf. Reichenburg*, XLIX., pp. 85-90, 1928.

- FELIPPONE, F.—Contribution à la flore bryologique de l'Uruguay. *Rev. Chilena de Hist. Nat.*, XXXII., 1928, pp. 83-88, figs. 5.
Note. vide *Rev. Bryol.*, Tome II., Fasc. 2, 1929, p. 108.
- FLEISCHER, M.—Viktor-Ferdinand Brotherus 1849-1929. Obituary. *Annales Bryologici*, II., 1929, p. 1.
Ditto. *Rev. Bryol.*, Tome II., Fasc. 2, pp. 71-81, 1929. (Includes bibliography).
Musci frondosi Archipelagi Indici et Polynesiaci, Ser. XI., Nos. 501-550, 1928. *Annales Bryologici*, 1929, pp. 21-23. (1 sp. nov.).
- GARDET, G.—Musciniées du Plateau lorrain. *Bull. Soc. Sc. Nancy*, sér. 4, III., pp. 141-201, Nancy, 1927.
Reviewed by Gaume, R.
Quelques mousses et hépatiques récoltées par M. P. Remy pendant la campagne arctique du " Pourquoi-Pas ? " en juillet-août 1926. *Bull. Soc. Bot. France*, LXXV., 1928, pp. 257-264.
Reviewed by Allorge, P.
- GAUME, R.—Review. Devauversin, A., Gardet, G. *Rev. Bryol.*, Tome I., No. 2/3, 1928, pp. 159-160.
- GEPP, A.—Viktor Ferdinand Brotherus 1849-1929. Obituary. *Jour. Bot.*, 1929, p. 114.
- GYÖRFFY, I.—Notationes bryologicae I-IV. *Rev. Bryol.*, 1928, No. 2/3, pp. 81-86.
- HARSHBERGER, J. W.—Tundra vegetation of Central Alaska directly under the Arctic Circle. *Proc. Amer. Philos. Soc.* LXVII., 3, 1928, pp. 215-234, figs. 15.
- HILLIER, L.—Florule bryologique des Alluvions siliceuses de la vallée de l'Ognon. *Rev. Bryol.*, Tome I., No. 2/3, 1928, pp. 123-129. (Mosses, hepatics and sphagna.). (R. Ognon runs S. from Vosges Mts.).
- JENNINGS, O. E.—Miscellaneous notes on bryological literature. *Bryologist*, XXXII., 1929, pp. 15-20.
Ditto. *Ibid*, XXXII., 1929, pp. 66-67.
- *KOPPE, Fr.—Das montane Element in der Moosflora von Schleswig-Holstein. Repr. from *Annales Bryologici*, II., 1929, pp. 35-66. (Mosses, hepatics and sphagna).
Reviewed by Reimers, H.

- *Zweiter Beitrag zur Moosflora der Grenzmark Posen-Westpreussen. Sonderab. a. d. Abhn. u. Ber. der Naturw. Abt. der Grenzmark. Gesells. z. Erforsch. u. Pflege der Heimat. Schneidemühl, 1929, pp. 5-62. (Mosses, hepatics and sphagna.).
- KURZ, H.—Influence of Sphagnum and other mosses on bog reactions. Ecology, IX., 1928, pp. 56-69, figs. 1-7.
- JANSEN, P. en WACHTER, W. H.—Bryologiese Notities. Nederl. Kruidk. Archief, 1928, 2, (1929), pp. 167-171.
- JENSEN, C. och MEDELIUS, S.—Till kännedomen om Ölands mossflora. (Contrib. à la connaissance de la flore bryol. d'Öland.). Botan. Notiser, 1929, pp. 29-51, figs. 2, Lund, 1929. (In Swedish).
Reviewed by Allorge, P.
- *MACFADDEN, F. A.—Selkirk and Rocky Mts. of Canada, supplementary lists of Hepaticae, Musci and Sphagna. Report Provincial Mus. Nat. Hist. Victoria, B.C., for 1928, pp. 19-22.
- *MEGAW, W. R.—Report on recent additions to the Irish Fauna and Flora : Musci and Hepaticae. Proc. Roy. Irish Acad., XXXIX., B. No. 1, 1929, pp. 78-91, Dublin (Hodges, Figgis & Co.).
- MESLIN, R.—Reviews of :—Haynes, C., Chermezon, H. et Hée A., Teodoresco, E. C., Jennings, O. E., Troll, W. Rev. Bryol., Tome I., No. 2/3, 1928, pp. 153, 159, 167, 168.
- MOXLEY, E. A.—The Moss flora of North Grey County and part of the Bruce Peninsula, Ontario. Canadian Fld. Naturalist, XLII., 1928, pp. 194-201.
Reviewed by Jennings, O. E.
- NEUHOFF, W.—Seltene Pflanzen aus den Kreisen Schwetz und Marienwerder 1911 bis 1918.—Bryophyta, Pteridophyta. Schriften physikal.—ökonom. Ges. Königsberg i Pr., LXV., 3/4, 1928, pp. 179-181.
- OCHSNER, F.—Studien über die Epiphyten-Vegetation der Schweiz. Jahrb. d. St. Gallischen Naturw. Ges., LXIII., 1927, pp. 108, figs. 15, St. Gallen, 1928.
Reviewed by Allorge, P.
Reviewed by Reimers, H.
- PALMER, E. L.—Liverworts, mosses, ferns and their kin. Cornell Rural School Leaflet, XXII., No. 2, pp. 1-48, 1928.
Reviewed by Jennings, O. E.

- PARLIN, J. C.—Some bryological notes from Maine. *Bryologist*, XXXII., 1929, pp. 32-34.
- PAUL, H.—Zur Bryogeographie des Bayerischen Waldes. *Annales Bryologici*, II., 1929, pp. 67-86. (Mosses, sphagna and hepatics.)
Reviewed by Reimers, H.
- POTIER de la VARDE, R.—Additions à la flore bryologique de Normandie. *Rev. Bryol.*, Tome II., Fasc. 1, 1929, pp. 30-34.
- REIMERS, H.—Beiträge zur Bryophytenflora Neuguineas. *Hedwigia*, LXIX, Hft. 1/2, 1929, pp. 114-136. (1 sp. nov. hepatic and 9 spp. nov. of moss).
- *SCHUMACHER, A.—Beiträge zur Moosflora des Nutscheids. Sonderab. aus Sitzungsber. des Bot. u. Zool. Ver. 1928. *Naturhist. Ver. preuss. Rheinl. u. Westf.*, Bonn, 1929.
- THÉRIOT, J.—Review. Sim, T. R. *Bryophyta of S. Africa*. *Rev. Bryol.*, Tome I., 1928, pp. 155-157.
Contribution à la flore bryologique du Chili, 9e article. *Rev. Chilena de Hist. Nat.*, XXXII, pp. 252-255, figs. 6, 1928.
Reviewed by Allorge, P.
Reviewed by Reimers, H.
- UNAMUNO, L. M.—R. Gonzalez Fragoso. Obituary. *Ann. Cryptog. Exot.* I., 1928, pp. 257-265. Paris, 1928.
- CAVANAGH, L. M.—Mosses new to Iowa. *Bryologist*, XXXII., 1929, p. 112-113. (Includes sphagna).

If the output of bryological literature is a true index of the interest taken in bryology, this branch of botany is rapidly increasing in popularity, both in Europe and America. In order to cope with the indexing of this flood of new work may I reiterate my previous request to bryologists kindly to send me early notification of their publications, or better still reprints? For some inexplicable reason it has been impossible hitherto to obtain early delivery after publication of one of the important French periodicals. If therefore some French works do not appear in these Annual Lists for 12 months or more after they should, this is the reason.

In conclusion I would like to thank, on behalf of the B.B.S., all those who have so generously presented copies of their works to the Library.

LESLIE B. C. TROTTER.

March 31st, 1930.

OBITUARY.

VICKTOR FERDINAND BROTHERUS,
(1849-1929).

Professor Brotherus was born in the Åland Islands of Finland, November 28th, 1849, and died in February, 1929, at Helsingfors, where he had lectured on botany for many years.

As a bryologist he was of world-wide repute. He made expeditions into the wilds of Central Asia and to the Caucasian Alps in pursuit of his botanical studies. His published works comprise a very large number of papers and books, dealing with the bryology of such widely separated countries as Scandinavia, India, Australasia, the Philippine Islands, tropical Africa, South America, East Asia, etc. His best known work, the "Musci" in Engler and Prantl's *Pflanzenfamilien*, is considered one of the finest and most up-to-date contributions to bryological classification.

His Moss-herbarium at Helsingfors contains about 110,000 specimens, representing over 15,000 species.

In 1920 he was elected a Foreign Member of the Linnean Society, and was an Honorary Member of many other Societies in different countries.

I am indebted for the above information to the obituary notice which appeared in *The Journal of Botany* (1929, p. 114), written by Mr. A. Gepp.

D. A. JONES.