

The British Bryological Society

Formerly the Moss Exchange Club,
Founded 1896.



REPORT FOR 1944-45.

VOL. IV., PART 5.



| | |
|---|-----|
| Price | 5/- |
| Price of Old Reports prior to 1944 (per copy) | 2/6 |
| Old M.E. Club Reports (per copy) | 1/- |

Berwick-upon-Tweed :

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

1946

CONTENTS.

| | <i>Page</i> |
|---|-------------|
| Moss Herbarium of B.B.S. - - - - - | ii cover |
| Executive Officers of the B.B.S. - - - - - | 233 |
| List of Members - - - - - | 234 |
| Report of Secretary - - - - - | 240 |
| Statement of Accounts - - - - - | 242 |
| Report of Meeting, September, 1945 - - - - - | 244 |
| Report of Distributor (Mosses) - - - - - | 246 |
| Report of Distributor (Hepatics) - - - - - | 247 |
| Plants sent for Distribution, 1945 - - - - - | 248 |
| List of Referees - - - - - | 249 |
| Report on Plants sent in by Members for Distribution - | 250 |
| List of New Vice-County Records - - - - - | 277 |
| Recent Bryological Publications - - - - - | 291 |
| Biological Observations on Bryophytes - - - - - | 307 |
| Revision of the Handbooks - - - - - | 309 |
| Obituaries - - - - - | 310 |
| List of Books on Bryophytes in the B.B.S. Library - - - | 321 |
| The Sullivant Moss Society - - - - - | iii cover |

**EXECUTIVE OFFICERS
of the British Bryological Society
for 1944-45.**

President :—

Miss E. ARMITAGE (till September, 1945).

Mr. W. R. SHERRIN, A.L.S. (from September, 1945).

Vice-President :—

Mr. W. R. SHERRIN, A.L.S. (till September, 1945).

Mr. F. E. MILSOM, B.Sc. (from Sept., 1945, since deceased).

Ex-Presidents :—

Mr. W. E. NICHOLSON, F.L.S. (Deceased).

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

Mr. J. B. DUNCAN.

Treasurer :—

Mr. J. B. DUNCAN.

Librarian and Curator :—

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

Bibliographer :—

Mr. W. R. SHERRIN, A.L.S. (till Sept., 1945.)

Mr. A. D. BANWELL (from Sept., 1945).

Distributors :—

Mosses :—Mr. E. C. WALLACE (till Sept., 1945).

Mr. C. P. CASTELL, B.Sc. (from Sept., 1945).

Hepatics :—Mr. C. M. BEDFORD, B.A.

Additional Members :—

Mr. F. E. MILSOM, B.Sc. (till Sept., 1945).

Miss E. M. LOBLEY.

Dr. P. W. RICHARDS, M.A. (from Sept., 1945).

Secretary :—

Mr. A. THOMPSON, B.Sc.,

23 Regent Crescent, Skipton, Yorkshire.

LIST OF MEMBERS, 1945 (December).

Honorary Members:—

- *Miss E. Armitage, Dadnor, Ross, Herefordshire.
 Mr. J. B. Duncan, 6, Summerhill Terrace,
 Berwick-upon-Tweed.
 Dr. A. W. Evans, Ph.D., Yale University, Newhaven
 (Connecticut), U.S.A.
 Dr. A. J. Grout, Ph.D., Newfane, Vermont, U.S.A.
 Mr. A. Wilson, F.L.S., F.R.Met.S., Tir-y-coed, Roe Wen,
 Conway, North Wales.

Ordinary Members:—

- Mr. J. H. Albrecht, Zugerberg, Switzerland.
 Mr. G. H. Allison, 65, Convamore Road, Grimsby.
 Prof. P. Allorge, 63, Rue de Buffon, Paris (5e). (Deceased,
 Jan. 21st, 1944).
 Mr. A. H. G. Alston, Savile Club, 69, Brook Street, London,
 W.1.
 Herr H. Andres, Argeländerstrasse, 124/2, Bonn am Rhein,
 Germany.
 Mrs. A. S. Bacon, B.Sc. (Lond), F.L.S., Department of
 Biology, Technical College, Brighton, Sussex.
 Mr. A. D. Banwell, 30, Thorncliffe Road, Nottingham.
 Mr. E. F. Barnes, St. Madderne, Throwleigh, Okehampton.
 Mr. Edwin B. Bartram, Bushkill, Pike County, Pennsyl-
 vania, U.S.A.
 Mr. Chas. M. Bedford, B.A., Taunton School, Somerset.
 Dr. T. H. B. Bedford, M.Sc., M.D., M.R.C.P., The Medical
 School, The University, Manchester, 13.
 Dr. Adám Boros, Aldás-u 4, Budapest, 11, Hungary.
 Mr. T. L. C. Bottomley, 23, Ryegate Crescent, Sheffield, 10.
 Mr. J. P. M. Brenan, B.A., 9, Longwall Street, Oxford.
 Mr. J. Brown, 16, Stafford Street, Sheffield, 2.
 Miss Margaret S. Brown, 36, Kent Street, Halifax, Nova
 Scotia.
 Dr. A. Burges, M.Sc., Ph.D., Botany School, Cambridge.
 Mr. W. H. Burrell, F.L.S., 203, Hall Lane, Horsforth,
 Leeds. (Deceased, March 30, 1945.)

- Mr. J. Carpenter, Dept. of Botany, King's College,
Newcastle-on-Tyne, 2.
- Mr. C. P. Castell, B.Sc., 52, Graham Road, Wimbledon,
London, S.W.19.
- Mr. D. G. Catcheside, M.Sc., F.L.S., 186, Gilbert Road,
Cambridge.
- Mons. J. Charrier, La Châtaigneraie, Vendée, France.
- Miss H. A. Chick, 45, Cricklade Avenue, Streatham Hill,
London, S.W.2.
- Miss L. M. Child, 2, Chernocke House, Canford Cliffs,
Bournemouth.
- Dr. W. A. Clarke, B.Sc., Ph.D., Dept. of Botany, King's
College, Newcastle-on-Tyne, 2.
- Mr. R. B. Cocke, M.Sc., Kilbryde, Corbridge,
Northumberland.
- Mr. A. C. Cramp, Palmer's Boys' School, Grays, Essex.
- Mr. F. Crosland, Eton House, Palmerston Street, Derby.
- Mr. A. C. Crundwell, Loadhams, Farnham, Surrey.
- Mr. H. F. Dovaston, B.Sc., West of Scotland Agricultural
College, Auchincruive, by Ayr.
- Miss U. Duncan, Parkhill, Arbroath, Angus.
- Capt. A. E. A. Dunston, Burltons, Donhead St. Mary,
Wilts., via Shaftesbury, Dorset.
- Rev. E. A. Elliot, M.A. (Oxon.), South Stoke Vicarage,
Nr. Reading.
- Prof. J. Else, F.R.B.S., Broadoak House, Newnham-on
Severn, Glos.
- Mr. J. G. Finlay, 27, Botanic Road, Glasnevin, Dublin.
- Prof. T. C. Frye, Dept. of Botany, University of Washington,
Seattle, U.S.A.
- Dr. Jos. Fröehlich, Rechtsanwalt, Mariahilfer Str. 117,
Vienna, 6, Austria.
- Mr. A. Gepp, M.A. (Cantab), British Museum (Nat. Hist),
Cromwell Road, London, S.W.7.
- Mr. C. H. Gimingham, Haddon House, Amenbury Lane,
Harpenden, Herts.
- Mr. P. Greig-Smith, Dept. of Botany, The University,
Manchester, 13.
- Prof. Istvan Györffy, Kolozovár, Majális-utca, 28, Hungary.
- Mr. R. H. Hall, 2, Hartington Terrace, West Road, Buxton.
- Mr. K. C. Harris, 2, The Close, Eastcote, Pinner, Middlesex.

- Prof. T. M. Harris, M.A., B.Sc., Botanical Dept., The University, Reading.
- Mr. G. P. Hector, 50, Forest Road, Aberdeen.
- Mr. A. E. Hick, Sherrards, Cricketfield Lane, Bishops Stortford, Herts.
- Mr. F. Hobbs, 28, Kingsthorpe Road, Sydenham, London, S.E.26
- Mr. H. J. Holmes, 129, Dunmow Road, Bishops Stortford, Herts.
- Mr. G. F. Horsley, 2, Beechfield Road, Richmond, Yorks.
- Miss E. M. Hough, M.A., Springfield, Highland Avenue, Brentwood, Essex.
- Mr. J. D. Houston, 11, Portrush Road, Portstewart, Co. Derry, N. Ireland.
- Mr. C. P. Hurst, F.L.S., Landulph Rectory, Saltash, Cornwall.
- Mr. H. A. Hyde, M.A., F.L.S., National Museum of Wales, Cardiff.
- Dr. C. T. Ingold, D.Sc., Ph.D., F.L.S., Dept. of Botany, Birkbeck College, Breans Buildings, Chancery Lane, London, E.C.4.
- Miss A. M. Irvin, Bayhead House, Portballintrae, Bushmills, N. Ireland.
- *Mr. A. B. Jackson, 3, The Avenue, Kew Gardens, London.
- Dr. E. W. Jones, M.A., Ph.D., School of Forestry, University of Oxford, Oxford.
- Miss Margaret Knox, c/o Mrs. Weingardt, 45, Esplanade, Burnham-on-Sea, Somersetshire.
- Dr. Mauno J. Kotilainen, D.Ph., Korkevuoren, Katu, 8C., Helsinki, Finland.
- Mr. J. R. Lee, 96, Finlay Drive, Dennistoun, Glasgow, E.1.
- Mr. R. Lewis, Electric House, Queen Street, Withernsea, E. Yorks.
- Herr Johannes Lid, Botanical Museum, Oslo, Norway.
- Mr. C. A. Lister, 2, Brynelen Court, Prince Edward's Road, Lewes, Sussex.
- Miss E. M. Lobley, 17, Southlands, Hexham,
Northumberland.
- Mr. Percy Long, Glenlea, Carisbrooke Road, Newport, Isle-of-Wight. (Deceased, Sept. 26th, 1944).
- Dr. N. Malta, Prof. of Botany, Alberta 10, Riga, Latvia.

- Rev. W. R. Megaw, B.A., M.R.I.A., 376, Ormean Road, Belfast.
- Mr. F. E. Milsom, B.Sc., High Cross, Kirkburton, Huddersfield. (Deceased, Dec. 5th, 1945).
- Dr. Hjalmar Möller, Naturhistoriska Riksmuseum, Stockholm, 50, Sweden. (Deceased, Mar. 19th, 1941).
- Mr. E. A. Moxley, 60, Jerome Street, Toronto, 9, Ontario, Canada.
- Miss C. W. Muirhead, Kelsick Moss House, Abbey Town, Carlisle.
- *Mr. W. E. Nicholson, F.L.S., 50, St. Anne's Crescent, Lewes, Sussex. (Deceased, Feb. 13, 1945).
- Mr. E. North, Ministry of Education, Marine Hydro, Rhyl, Flints.
- Mr. J. H. G. Peterken, 73, Forest Drive East, Leytonstone, London, E.11.
- 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, 2. (Deceased, Nov. 1944).
- Mr. J. Proskauer, S.E. Essex Technical College, Longbridge Road, Dagenham, Essex.
- Dr. P. W. Richards, M.A., 9, Bulstrode Gardens, Cambridge.
- Mr. F. D. S. Richardson, M.A. (Camb.), Milverton, Horsell Vale, Woking, Surrey.
- Mrs. H. G. V. Richardson, The Grange, Bussage, Stroud, Glos.
- Mr. F. Rilstone, A.L.S., Lambourne Hill, Penhallow, Truro, Cornwall.
- Mr. F. Rose, Boxtree House, East Malling, Kent.
- Mrs. C. Sandwith, 26, Canynge Square, Clifton, Bristol, 8.
- Miss L. I. Scott, M.Sc., 18, Montpelier Cliff Road, Leeds, 6.
- Lieut. Hansford T. Shacklette, M.Sc. (Kentucky), O 1541305, 12th Evacuation Hospital, A.P.O. 511, Army of the U.S.A.
- Herr Albert Schumacher, Waldbröl, Wiedenhof, 5, Rheinland, Germany.
- Mr. G. E. Shaw, 62, Quarry Hill, Tonbridge, Kent.
- Mrs. M. E. Sherrin, 323 Norwood Road, London, S.E.24.
- Mr. W. R. Sherrin, A.L.S., South London Botanical Institute, 323, Norwood Road, London, S.E.24.

- Mr. J. Sinclair, B.Sc., Royal Botanic Garden, Edinburgh, 4.
Mr. F. A. Sowter, 9, North Avenue, Leicester.
Prof. Wm. C. Steere, Dept. of Botany, University of Michigan, Ann Arbor, U.S.A.
Capt. Carl Stenholm, Södra Vägen, 24, Göteborg, Sweden.
(Deceased, 1939).
Rev. T. Stephenson, Irfon, Llanbadarn Road, Aberystwyth.
Miss E. H. Stevenson, B.Sc., 28, Foxcombe Road, Weston, Bath, Somerset.
Herr Per Störmer, Bot. Museum, Oslo, Norway.
Miss J. S. Thomson, 28, Lower Baggot Street, Dublin.
Mr. A. Thompson, B.Sc. (Lond.), 23, Regent Crescent, Skipton, Yorkshire.
Mr. Francis W. Thorrington, Fern Dell, Luscombe Road, Paignton, Devon. (Deceased, Sept. 1944).
Mr. W. G. Travis, 9, Barton Road, Liverpool, 9.
Dr. L. B. C. Trotter, M.D. (Cantab.), Lucknow House, Lucknow Avenue, Mapperley Park, Nottingham.
Mr. Arthur Turner, 140, Pine Street, Nelson, Lancashire.
Colonel A. R. Ugglä, F.L.S., Bellmansgatan, 6, Stockholm, Sweden.
Dr. Fr. Verdoorn, P.O. Box, 151, Waltham, Mass., U.S.A.
Mr. W. H. Wachter, Mathenesserweg 118a, Rotterdam-West, Holland.
Mr. R. Walker, Werden, Newton-with-Scales, Nr. Kirkham, Lancs.
Mr. E. C. Wallace, 2, Strathearn Road, Sutton, Surrey.
Professor J. Walton, M.A., D.Sc., Dept. of Botany, The University, Glasgow, W.2.
Dr. E. F. Warburg, F.L.S., 9, Grove House, Epsom, Surrey.
Mr. R. Waterfield, 7, Buckeridge Road, Teignmouth, Devon.
Dr. Walter Watson, D.Sc. (Lond.), A.L.S., Cedene, Cheddon Road, Taunton.
Mr. W. C. R. Watson, 245, Southlands Road, Bickley, Kent.
Mrs. A. White, Great Close, Ampfield, Romsey, Hants
Miss J. White, 3a, Fell Lane, Penrith, Cumberland.
Miss G. Wigglesworth, M.Sc., Hill Top Cottage, Gawsforth, Nr. Macclesfield.
Mrs. H. Wright, Lucknow House, Lucknow Avenue, Mapperley Park, Nottingham.

Dr. Stanley Wyard, M.D., F.R.C.P., 35 Bolingbroke Grove,
London, S.W.11.

*Mr. William Young, J.P., F.B.S.Ed., Fairview, Kirkcaldy,
Fifehire.

* Original members of the Moss Exchange Club.

NEW MEMBERS, 1946.

Miss M. E. Ackerley, Long Preston Vicarage, via Skipton.

Mr. J. Band, 319, London Road, Reading.

Mrs. E. M. Band, 319, London Road, Reading.

Mr. A. Chapman, 31, Dulwich Village, London, S.E.21.

Dr. Christine Ecroyd, M.B., B.S. (Lond.), M.R.C.S.,
L.R.C.P., Bournlea, Stoneborough Lane, Budleigh
Salterton, Devon.

Mr. R. B. Dawson, M.Sc., F.L.S., St. Ives Research
Station, Bingley, Yorkshire.

Dr. F. B. Hora, The University, Reading.

Mr. K. W. Jones, B.Sc., Botanical Dept., University,
Manchester, 13.

Dr. N. F. Lock, M.A., M.B., B.Ch. (Cantab.), F.R.C.S.,
L.R.C.P., 5, Barnfield Crescent, Exeter.

Mr. R. D. Meikle, Ardmore, Newtownards, Co. Down,
N. Ireland.

Dr. G. Metcalfe, M.A., 4, Harvey Road, Cambridge.

Mr. G. O. K. Sainsbury, P.O. Box 88, Wairoa, Hawkes Bay,
New Zealand.

Mr. N. Y. Sandwith, M.A. (Oxon.), F.L.S., The Herbarium,
Royal Botanic Gardens, Kew, Surrey.

Mr. P. L. Spencer, 6, Highland Road, Upper Norwood,
London, S.E.19.

Mrs. S. Thompson, 23, Regent Crescent, Skipton, Yorkshire.

Mr. H. Walsh, 1, Dye Houses, Luddenden Foot, Yorkshire.

Dr. E. V. Watson, B.Sc., Ph.D., Dept. of Botany, Royal
Botanic Garden, Edinburgh, 4.

Mr. H. J. White, Great Close, Ampfield, Romsey, Hants.

Mr. H. L. K. Whitehouse, Botany School, Downing Street,
Cambridge.

REPORT OF SECRETARY.

The good attendance at the meeting in London in September and the tone of that meeting gave evidence that there is plenty of enthusiasm for the carrying on of the Society and gave a good start to work after the War.

Some of the members are making plans for biological observations on Bryophytes and the prospect for this seems most promising.

Since the last Report was printed it is to be regretted that the deaths of the following members have to be chronicled—Prof. P. Allorge, the distinguished French bryologist ; Mr. W. H. Burrell for many years an active member of the Society who was keenly interested in the bryophytes of Yorkshire ; Mr. F. E. Milsom our referee for hepatics, elected Vice-President in September ; Dr. H. Möller of Stockholm ; Mr. W. E. Nicholson our greatest authority on British hepatics ; Prof. J. H. Priestley ; Capt. C. Stenholm of Göteborg and Mr. F. Thorrington.

The number of new members brings up the total to the usual one of about 140.

There are still 7 foreign members about whom we have no news, their names are retained on the list of members for the present.

A summary of the work done at the London meeting was sent out with the Excursion Notice, so that need not be added to here.

Thanks are due to the Distributors and Referees for work done in connection with the Distribution which started in the Autumn of 1945, to the Executors of Mr. Nicholson for duplicates from his collection and to Prof. Walton for duplicates from the Lillie collection for distribution to members.

The next Annual Meeting will be held at Appleby from April 10th-17th, 1946.

It may be mentioned again that Mr. W. R. Sherrin is Librarian and Curator and will welcome gifts of books and specimens ; Dr. E. V. Watson has become Bibliographer and to him copies of new papers should be forwarded ; new V. C. records should go to Dr. E. F. Warburg (Mosses), Miss G. Wigglesworth (Hepatics), and Mr. A. Thompson (Sphagna), with specimens for verification.

It is very important that *change of address* should be notified to the Secretary ; notices have frequently to be sent twice, to members who have failed in this matter.

Important Note.

The Subscription to the Society is to remain for 1947 as it was before, but to provide money for increased cost of printing, to pay for new Census Catalogues and for the enlargement of the Report, a "Printing Fund" has been opened to which members are invited to contribute. Any contributions should be sent to the new Treasurer, Mr. J. H. G. Peterken, 73 Forest Drive East, Leytonstone, London, E. 11.

Members may make use of a Banker's Order for convenience in paying their annual subscriptions. In future no Report will be sent to members who are a year in arrears with their Subscriptions.

A. THOMPSON.

Skipton,
April, 1946.

242

STATEMENT OF*RECEIPTS.*

| | | | | | | |
|--|------|------|------|-----|----|-----------|
| Balance from last Account | .... | .... | .... | £47 | 14 | 10 |
| Subscriptions—1939 | .... | .... |  | 5 | 0 | |
| 1940-45 | .... | .... | £20 | 5 | 0 | |
| ,, 1946 | .... | .... | 11 | 0 | 6 | |
| | | | | | | 31 10 6 |
| Sale of Catalogues, Reports, etc. | .... | .... |  | 7 | 8 | 6 |
| Interest on £100 War Stock to 1st Dec., 1945 | .... |  |  | 7 | 0 | 0 |
| | | | | | | £93 13 10 |

BALANCE SHEET*LIABILITIES.*

| | | | | | | |
|---|------|------|------|-----|---|----------|
| Printing Report, 1944-45 | .... | .... | .... | £25 | 0 | 0 |
| Distribution (estimated cost) | .... | .... | .... | 3 | 0 | 0 |
| Subscriptions (1946) paid before due | .... | .... | .... | 11 | 0 | 6 |
| Balance (excess of Assets over Liabilities) | .... |  | .... | 118 | 5 | 10 |
| | | | | | | £157 6 4 |

J. B. DUNCAN, *Treasurer.*

Berwick-on-Tweed,
31st December, 1945.

ACCOUNT for 1944-45.*EXPENDITURE.*

| | | | | | | | |
|--|------|------|------|------|-----|----|----|
| Printing Report, 1940-43 | .... | .... | .... | .... | £24 | 10 | 11 |
| Stationery and Circulars | .... | .... | .... | .... | 4 | 12 | 9 |
| Secretary's Expenses | .... | .... | .... | .... | 5 | 3 | 11 |
| Treasurer's expenses | .... | .... | .... | .... | 2 | 10 | 8 |
| Librarian's expenses | .... | .... | .... | .... | 0 | 16 | 3 |
| <i>Bryologist</i> arrears of subscription to 31st Dec., 1945 | | | | | 3 | 3 | 0 |
| Balance on hand 31st Dec., 1945 | .... | .... | .... | .... | 52 | 16 | 4 |
| | | | | | | | |
| | | | | | £93 | 13 | 10 |

31st December, 1945.*ASSETS.*

| | | | | | | | |
|--|------|------|------|------|------|----|---|
| Cash on hand | .... | .... | .... | .... | £52 | 16 | 4 |
| £100 3½% War Stock | .... | .... | .... | .... | 100 | 0 | 0 |
| Arrears of subscriptions, estimated to produce | .... |  |  | .... | 4 | 10 | 0 |
| | | | | | | | |
| | | | | | £157 | 6 | 4 |

Examined and found correct.

J. Y. ELDER,

Barclay's Bank, Ltd.,

Berwick-on-Tweed.

15th *March*, 1946.

REPORT OF MEETING held in September, 1945.

by Miss E. H. STEVENSON, B.Sc.

The first meeting of the British Bryological Society since 1939 was held in London from September 11th to 14th, 1945. It was a great pleasure to meet once more, after so long an interval, many old friends and to welcome keen, new members. This pleasure was somewhat overshadowed by the heavy losses the Society has sustained by death during the past six years, and by the absence, through illness, of the President, Miss E. Armitage, and the Treasurer, Mr. J. B. Duncan.

In the absence of Miss Armitage, Mr. Sherrin presided at the Annual Meeting held at 2 p.m., September 12th, in the Board Room of the Natural History Museum, South Kensington, 34 members being present. After the election of officers and referees the question of renewal of subscriptions was discussed and it was decided that each member should pay one 10s. subscription only, to cover the whole period, 1940-45. The final decision for the place and date of the 1946 meeting was left to the executive.

The excursion on Thursday, September 13th, under the leadership of Dr. Wyard, was favoured with fine weather. Most of the party assembled at Waterloo at 10.12, and were met at West Clandon Station by those who had motored down, making 28 in all. The original suggestion was that we should walk up to the top of Albury Down, down to Shere and Albury, back up the hill again to Newland's Corner, and so down to West Clandon by 3.45. Those who know the average rate on a Bryological excursion will not be surprised to learn that this proved too ambitious a programme for the time available. A most enjoyable, leisurely climb up through Netherlands' Wood was the prelude to a quick "follow-my-leader" by sundry by-paths to an ideal lunch spot on the down at the woodland edge, with a gorgeous view across the valley to other wooded hills in the distance. After lunch it was found to be too late to go farther afield so we made our way direct by a woodland path on the down summit to the well-known viewpoint at Newland's Corner. From there we returned by the main road to West Clandon Station, full of gratitude to Dr. Wyard for having planned so enjoyable an outing.

Among the interesting Bryophytes collected were—

Archidium alternifolium Schp., *Dicranum strictum* Schleich., *Phascum cuspidatum* Schreb., *Pottia minutula* Fuernr., *Tortula ambigua* Ångstr., *Tortula laevipila* Schwaeg., *Ephemerum serratum* Hampe, *Philonitis capillaris* Lindb., *Webera proligera* Bryhn, *Pterogonium gracile* Swartz, *Eurynchium abbreviatum* Schp., *Plagiothecium denticulatum* var. *apterychus* Spruce and *P. sylvaticum* B. & S.

During the evening of the 13th Dr. P. W. Richards gave the members, at the South London Botanical Institute, an interesting talk on methods of growing and cultivating bryophytes. It is hoped that he will write a paper on this subject for publication in the Report.

REPORT OF DISTRIBUTOR (Mosses).

This distribution, the Society's first for six years, is most encouraging, both in the number and quality of the packets sent in and in the number of contributors, in view of the difficult conditions which have prevailed during the war. A slow start prompted the distributor to appeal to our old contributors, as many new members had sent in requests for specimens, but few appeared to be in the position to contribute; the response was most gratifying and the thanks of members are due to these generous contributors and especially to our referees.

The referees report very favourably on the material sent in, misdeterminations being very rare and the general standard of packeting, labelling, and description of habitat, etc., high. In some cases, however, the quality of the war-time paper has been too poor to stand up to the wear and tear involved in the distribution and has necessitated re-packeting by the distributor to avoid complete loss of material. Contributors should bear in mind that the packets have to withstand much handling and several journeys through the post. Every packet is submitted to the appropriate referee, who, not infrequently, obtains another opinion before the material is available for distribution. Some of the best material (and paper!) was sent by our Norwegian contributors, a most welcome resumption of our normal peace-time contacts with members abroad.

It has been found possible to send parcels only to those members who have notified the Distributor of their requirements. Duplicate material from the D. Lillie and W. E. Nicholson collections was received too late for this distribution, but it is hoped to make the collections available next year.

Thanks are due to Mr. F. Hobbs and to Miss M. C. Gill for their help in the work of distribution, and to our President for providing accommodation at the South London Botanical Institute.

C. P. CASTELL.

2nd April, 1946.

REPORT OF DISTRIBUTOR (Hepatics).

After a lapse of several years the distribution figures for this year cannot be termed unsatisfactory although much below those of our last distribution. A pleasing feature is the number of contributions from new members. There were 346 packets sent in by 14 members. This does not include about 340 duplicates from the Glasgow University Herbarium, collected by D. Lillie and sent by Prof. Walton. In addition there is a large number of hepatics collected by the late W. E. Nicholson sent to Mr. Sherrin for distribution among our members. As these are just as Mr. Nicholson collected them, they will not be available until they have been made up into suitable packets. This will take some time but a fair number should be ready for next year's distribution.

C. M. BEDFORD.

Taunton,

February, 1946.

MOSSES AND HEPATICS SENT FOR DISTRIBUTION, 1945.

| | <i>Sphagna</i> | <i>True Mosses</i> | <i>Hep- atics</i> | <i>Total</i> | |
|-----------------------|----------------|--------------------|-----------------------|--------------|-------|
| Mr. G. H. Allison | | 63 | ..... | 63 | |
| Miss E. Armitage | | 27 | ..... | 27 | |
| Mr. A. D. Banwell | | 16 | 47 | 63 | |
| Mr. J. Carpenter | | 31 | 18 | 49 | |
| Mr. C. P. Castell | | 86 | ..... | 86 | |
| Mr. D. G. Catcheside | | 130 | 50 | 180 | |
| Mr. F. Crosland | | 45 | ..... | 45 | |
| Miss U. Duncan | | 33 | 81 | 24 | 138 |
| Miss A. M. Irwin | | 177 | ..... | 177 | |
| Mr. A. B. Jackson | | 183 | ..... | 183 | |
| Dr. E. W. Jones | | 14 | 148 | 36 | 198 |
| Mr. J. R. Lee | | 38 | 45 | 14 | 97 |
| Herr J. Lid | | 133 | 6 | 139 | |
| Miss C. W. Muirhead | | 22 | ..... | 22 | |
| Mr. J. H. G. Peterken | | 30 | ..... | 30 | |
| Dr. P. W. Richards | | 71 | 22 | 93 | |
| Mr. F. Rilstone | | 225 | ..... | 225 | |
| Mr. F. A. Sowter | | 15 | 20 | 35 | |
| Herr Per Störmer | | 33 | 110 | 46 | 189 |
| Mr. A. Thompson | | 81 | 51 | | 132 |
| Miss J. S. Thomson | | 74 | ..... | 74 | |
| Mr. W. G. Travis | | 7 | 10 | | 17 |
| Dr. L. B. C. Trotter | | 9 | 9 | 18 | |
| Mr. A. Turner | | 6 | 48 | 17 | 71 |
| Prof. J. Walton | | | 6 | 6 | |
| Mr. E. C. Wallace | | 12 | ..... | 12 | |
| Dr. W. Watson | | 109 | 31 | 140 | |
| Mr. A. Wilson | | 318 | ..... | 318 | |
| | | 212 | 2,269 | 346 | 2,827 |

In addition Prof. Walton sent over 300 duplicates of hepatics from the David Lillie collection at Glasgow University. There is also a large number of hepatics collected by the late W. E. Nicholson, some of which are being distributed this year. Many more will be available when they have been made up into packets.

REFEREES.

Mosses :—

Sphagnaceae :—

| | |
|---|---------------|
| Rigida, Squarrosa and Cuspidata | Miss LOBLEY. |
| Acutifolia, Cymbifolia and Sub- secunda | Mr. THOMPSON. |
| Referee-in-Chief | Mr. SHERRIN. |

True Mosses :—

| | |
|--|----------------------------------|
| Andreaeaceæ to Grimmiaceæ | Mr. CROSLAND. |
| Tortulaceæ to Orthotrichaceæ | Dr. WATSON. |
| Schistostegaceæ to Leskeaceæ (except Bryum) | Mr. RILSTONE |
| Hypnaceæ | Mr. J. B. DUNCAN. |
| North American Mosses | Mr. SHERRIN. |
| European Mosses and British species of Bryum | } Mr. DUNCAN. |
| Non-European (except North American Mosses) and Referee- in-Chief | } Dr. RICHARDS. } Dr. WATSON. |

Mr. Alston will help with Indian Mosses and Mr. Sainsbury with New Zealand ones.

Hepatics :—

| | |
|--|---------------------------------|
| British and European | } Dr. RICHARDS. |
| Non-European and Referee-in- Chief | } Dr. JONES } Dr. W. WATSON. |

REPORT ON PLANTS SENT IN BY MEMBERS FOR DISTRIBUTION.

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

SPHAGNA.

Sphagnum fimbriatum Wils. var. *tenuè* Grav., pool Austwick Moss (64), Sept., 1945, A. Th.; var. *laxifolium* Warnst., Skipton Moor (64), Aug., 1944, A. Th.; Aas (Norway), Sept., 1945, P.S.

S. Girgensohnii Russ. var. *robustum* Warnst., near Kilsyth (86*), Oct., 1934, J.R.L.; var. *microcephalum* Warnst., Pass of Glencoe(98), July, 1939, A.Th.

S. Russowii Warnst., Hurum (Norway), Aug., 1945, P.S.

S. fuscum Schp., Ben Lawers (88), July, 1941, J.R.L.; Cairn-an-Lochan, Cairngorms, alt. 3200 ft., (96), June, 1938, E.W.J.

S. Warnstorffii Russ., Aberfoyle (87*), May, 1940, J.R.L.

S. acutifolium Ehrh., Glen Loin (98), Apr., 1940, J.R.L.; Hurum (Norway), Aug., 1945, P.S.

S. quinquefarium Lindb., Drunkie Glen (87*), May, 1940, J.R.L.; Caio (44), July, 1944, E.W.J.

S. plumulosum Röhl, Tregaron Bog (46), June, 1937, E.W.J.

S. molle Sull. var. *molluscoides* Warnst., Fylingdales Moor, near Robin Hood's Bay (62), Aug., 1943, A.Th.

S. Wulfianum Girg., Lötén (Norway), Sept., 1945, leg. E. Högholen, com. P.S.

S. compactum D.C. var. *subsquarrosus* Warnst., Thurstaston Common, Wirral (58*), Sept., 1945, W.G.T.

S. strictum Sull., near Glen Brittle, Skye (104), June, 1940, U.D.

S. squarrosus Pers. var. *spectabile* Russ., Possil Marsh (77*), June, 1940, J.R.L.; pool Austwick Moss (64), May, 1940, A.Th.

S. teres Ångstr. var. *subteres* Lindb., Blae Loch (75*), Apr., 1940, J.R.L.

- S. Lindbergii* Schp., Hurum (Norway), Aug., 1940, P.S.
- S. riparium* Ångstr., Aas (Norway), July, 1945, P.S.
- S. amblyphyllum* Russ. var. *macrophyllum* Warnst., Fylingdales Moor, near Robin Hood's Bay (62*), Aug., 1943, A.Th.
- S. parvifolium* Warnst., Aker (Norway), Oct., 1944, P.S., "This is *S. amblyphyllum* var. *parvifolium* Warnst., approaching var. *mesophyllum* Warnst. At one time both *S. amblyphyllum* var. *parvifolium* and *S. recurvum* P.deB. var. *parvulum* Warnst. were named *S. parvifolium*." A.Th.
- S. recurvum* P.deB. var. *robustum* Breidl., pool, Austwick Moss (64), Sept., 1945, A.Th. ; var. *majus* Ångstr., Knockewart Loch (75*), June, 1940, J.R.L.
- S. fallax* Klingr. var. *Roellii* Schlieph., submerged, Skipton Moor (64*), June, 1945, A.Th. ; var. *Schultzi* Warnst., Skipton Moor (64*), May, 1940, A. Th.
- S. subsecundum* Nees, Strathblane (86), Aug., 1918, J.R.L. "This looks like a mixture and some of it is *S. inundatum* Russ., the plants being too large and the stem leaves too long for *subsecundum*," A.Th. ; var. *intermedium* Warnst., Fylingdales Moor, near Robin Hood's Bay, (61), Aug., 1943, A.Th.
- S. obesum* Warnst. var. *plumosum* Warnst., ditch, Skipton Moor (64), May, 1940, A.Th. ; var. *canovirens* Warnst., pool, Austwick Moss (64), Sept., 1945, A.Th.
- S. subsecundum* Nees, Strathblane (86), Aug, J.R.L. "This looks like a mixture and some of it is *S. inundatum* Russ., the plants being too large and the stem leaves too long for *subsecundum*," A.Th. ; var. *intermedium* Warnst., Fylingdales Moor, near Robin Hood's Bay (61), Aug., 1943, A.Th.
- S. inundatum* Russ. var. *robustum* Warnst., Greenhead Gill, Grasmere (69), Sept., 1938, A.Th. ; var. *densum* Warnst., Duncomb (99*), Sept., 1918, J.R.L.
- S. auriculatum* Schp. var. *ovatum* Warnst., bog, Loughrigg (69), Apr., 1939, A.Th. ; var. *submersum* Warnst., near Carlochy, Glen Esk (90), Sept., 1945, U.D. ; submerged, Loughrigg (69), Apr., 1940, A.Th.
- S. crassycladum* Warnst. var. *magnifolium* Warnst., Coniston (69), June, 1944, A.Tu., det. A.Th. ; submerged, Storthes Hall Wood, near Huddersfield (63*), June, 1940, A.Th. ; submerged, Cockett Moss, Giggleswick (64), Aug., 1943, A.Th. ; var. *diversifolium* Warnst., submerged, Ilkley Moor (64), May, 1940, A.Th.

S. contortum Schultz, near Auldbar Road Station (90), Oct., 1945, U.D.

S. papillosum Lindb. var. *normale* Warnst., submerged, Meathop Moss (69), Sept., 1943, A.Th. ; var. *sublaeve* Limpr., submerged, Meathop Moss (69), Sept., 1943, A.Th.

S. magellanicum Brid., near Carlochy, Glen Esk (90*), Sept., 1945, U.D. ; Kilpatrick Hills (99), Sept., 1918, J.R.L. ; Meathop Moss (69), Sept., 1943, A.Th.

TRUE MOSSES.

(EUROPEAN British and Continental).

Andreaea Rothii Web. & Mohr., Foxdale (60), July, 1906, leg. J. A. Wheldon and A.Wi., com. A.Wi. "The leaves are nerveless and very papillose. It is *A. petrophila* Ehrh. [= *A. rupestris* Hedw.]" F.C.

A. crassinervia Bruch, wet rocks near Lundie Craigs, Sidlaw Hills (90*), Oct., 1944, U.D.

A. obovata Thed., c.fr. Snehetta, in Dovre, Norway, Aug., 1878, leg. F. Kiaer, com J. Lid. "The contents of some of the packets will be found to show characters near to *A. petrophila*, var. *alpestris* Thed., under which plant, considered as a species (*A. alpestris* B. & S., Hartm. and others), *A. obovata* is sometimes placed as a variety." F.C.

A. Hartmani Thed., Snehetta, in Dovre, Norway, Aug., 1878, leg. F. Kiaer, com. J. Lid.

Tetraphis Browniana (Dicks.) Grev., in clefts of Old Rød Sandstone, cliffs at head of Olchon Valley, Black Mountains; rocks by R. Keer, Wash Dub Wood (60), June 1901, leg. J.A.Wh. and A.Wi., com. A.Wi.

Catharinea tenella Roehl. [= *Atrichum tenellum* B. & S.], on wet sandy earth, Trehörningen, Aker, Norway, Aug., 1942, P.S.

Polytrichum strictum Banks, bog, Dungeon Gill, Langdale (69), Sept., 1940, D.G.C.

P. commune var. *minus* Weis, damp peat, Rossie Moor, near Brechin (90*), July, 1945, U.D.

Diphyscium foliosum Mohr, Glynhir Waterfall (44), Feb., 1897, leg. A. Ley, com. A.Wi. ; c.fr. Brundelow Woods (70), July, 1944, A.Tu. ; var. *acutifolium* Lindb., damp shady banks by river gorge, Canness, Glen Isla (90*), July, 1945, U.D.

Archidium alternifolium (Hedw.) Schp., damp sandy footpath, Munloch Bay (106), Oct., 1942, U.D.

Pleuridium axillare Lindb. [= *nitidum* (Hedw.) Rabenh.], on sand, side of stream, Downhill (I.40), June, 1940, A.M.I. "These are *Barbula convulata* Hedw." F.C.

Ditrichum tenuifolium Lindb. [= *cylindricum* (Hedw.) Grout.], potato field, Foesidoes, Radnor Forest (43*), alt. 1,150 ft., Oct., 1945. E.W.J.

D. flexicaule Hampe var. *densum* B. & S., on top of limestone walls, Deepdale, Buxton (57), July, 1934, F.C. ; near Leighton Beck, (60), Apr., 1901, A.Wi.

Swartzia inclinata Ehrh. [= *Distichium inclinatum* (Hedw.) B. & S.], c.fr. Penygvent (64), July, 1943, leg. C. A. Cheetham, com. A.Th. "Good typical *S. inclinata*." F.C. ; on glacial mound between Greenfield and Horton-in-Ribblesdale (64), May, 1944, leg. C. A. Cheetham, com. A.Th. "Intermediate between *S. montana* and *S. inclinata*. Spores (17-20 μ) are those of *S. montana*, reddish and usually entire peristome teeth are in favour of *S. inclinata* ; typical *inclinata* capsules can hardly be said to be present. Most of the capsules tending more to those of *montana* in form, colour, and direction. I did not succeed in finding any of the male bracts characteristic of *S. inclinata*," F.C.

Rhabdowesia crenulata Jameson, under shade of damp siliceous rock, Pen Ffridd Sarn, near Ysppyty Ifan (50*), alt. 1,000 ft., Nov., 1945. "I found it in the same district about twenty years ago," A.Wi. ; wet rocks, Eagle Crag, Borrowdale (70), May, 1945, D.G.C.

Cynodontium strumiferum (Hedw.) de Not., c.fr. foot of mossy boulder, above Invermoriston, Loch Ness (96*), Oct., 1942, U.D.

Dicranella heteromalla var. *interrupta* B. & S., mountain rocks, Loch Brandy, Clova (90*), Aug., 1939, U.D.

D. cerviculata (Hedw.) Schp., dried mud by ditch near Beauly (96*), Feb., 1942, U.D.

D. crispa (Hedw.) Schp., c.fr., edge of mountain stream on sand, Tamnagh Lodge (I.40), May, 1935, A.M.I.

D. Schreberi (Hedw.) Schp., abundant on floor, newly exposed about two years ago, of small limestone quarry, Bagley Wood near Oxford (22), June, 1945, E.W.J.

Campylopus subulatus Schp., Mundheim, Varaldsøy, Norway, on rocks covered with sand, Aug., 1943, P.S.

C. fragilis (Turn.) B. & S., shady banks, Lambriggan, Perranzabuloe (1), Dec., 1945, F.R.; on rocks, Mundheim, Varaldsøy, Norway, Aug., 1943, P.S.

C. setifolius Wils., rocks in spray, Rhaiadr Du, Dolgelly (48), Aug., 1943, P.W.R.

C. atrovirens de Not., var. *muticus* Milde., peaty soil, near Loch Coruisk, Skye (104), June, 1940, U.D.

C. introflexus (Hedw.) Brid., turfy soil, on top of rock, Howth (I.21), July, 1942, J.S.T.

Dicranodontium longirostre (W. & M.) B. & S., on rotting wood, Grassington (64), Sept., 1940, A. Tu.; var. *alpinum* Milde., peaty ground, Penyghent (64), Apr., 1940, A.Th.

Dicranum spurium Hedw., moist callunetum, Graffham Common (13), June, 1942, P.W.R.

D. Scottianum Turn., c.fr., Mangerton (I.1), Aug., 1935, A.M.I.

D. strictum Schleich., on tree, near Alton (39), June, 1935, F.C.

D. uncinatum (Harv.) C.M., mountain rocks, Glen Nevis (97), June, 1939, U.D.; moist vertical rocks, N. aspect, Langstrath (70), alt. c. 1,100 ft., May, 1945, P.W.R.

Fissidens viridulus (W.M.) Wahl., Ferriby (54), Spring, 1944, G.H.A.

F. osmundoides Hedw., Grayrigg Forest (69), June, 1937, A.Wi.

F. decipiens De Not. [= *cristatus* Wils.], on mossy rocks, Inverfarigaig, Loch Ness (96*), June, 1943, U.D.; west side Glen Loin (98), April, 1940, J.R.L.

Octodiceras Julianum (Save) Brid., abundant, with male inflorescence, in canal between Kilby Bridge and Wistow (55*), Dec., 1945, F.A.S.

Grimmia maritima Smith, rocks by sea, Portballintrae (I. 39), Nov., 1945, A.M.I.

G. Doniana Smith, Riggindale Ridge, Mardale (69), June, 1901, A.Wi.; stone wall, Glen Doll, Clova (90), May, 1940, U.D.

Rhacomitrium protensum Braun, wet rocks nr. Coniston (69), Sept., 1945, A.Tu. ; Glen of the Eden, Aberystwyth (46), May, 1940, E.A. ; Tal-y-Fan, nr. Ro Wen (49), alt. 1800-1900 ft., Aug., 1926, A.Wi.

R. heterostichum (Hedw.) Brid. var., *alopecurum* Huebn., boulders, Caenlochan, Glen Isla (90), July, 1945, U.D.

Hedwigia imberbis (Smith) Spruce, on rocks, Beinavicki, Kvinnherad, Norway, Aug., 1943, P.S.

Phascum Floerkeanum W. & M., in stubble wheat fields, Sparsholt (22*), Sept., 1942. Very abundant in wheat fields on chalky soil in the district, E.W.J. "Other material present, including a small form of *P. cuspidatum* with narrower leaves, greener colour, and larger cells than in *P. Floerkeanum*," W.W.

Pottia Heimii (Hedw.) Fuernr., bank by sea, Lymington (11), July, 1887, leg. —, com. A.Wi. ; c.fr. Fleetwood (60), May, 1899, leg. J. A. Wheldon, com. A.Wi. ; c.fr. seashore, Cleethorpes (54), June, 1940, G.H.A.

P. intermedia (Turn.) Fuernr., damp, sandy soil, Munloch Bay (106), Oct., 1942, U.D.

P. minutula (Schleich.) Fuernr., lawn in garden, Cambridge (26), Apr., 1940, D.G.C. ; Cleethorpes (54), Spring, 1923, G.H.A. "Margin of leaves less recurved than usual," W.W.

P. lanceolata (Hedw.) C.M., bank, Reigate Heath (17), March, 1934, leg. M. Saunders, com. C.P.C. ; ant hills on clay soil, Ashtead Common (17), Jan., 1894, leg. —, com. W.W.

Tortula ambigua (B. & S.) Ångstr., Ancaster (54), Spring, 1933, G.H.A. "Is *T. aloides* de Not., with leaves acuminate, capsule oblique and spore larger than in *T. ambigua*," W.W. ; sandpit near Dochgarroch (96), with *Bryum atropurpureum* W. & M., etc., Jan., 1943, U.D.

T. cernua (Hueben.) Lindb., waste heaps from limekilns (Magnesian limestone), Sprotborough (63), Nov., 1928, A.Th. ; foot of wall, near Garforth (64), March, 1935, W.W.

T. laevipila (Brid.) Schwaeg. var. *laevipilaeformis* (De Not.) Limpr., tree trunk, Lambourne, Perranzabuloe (1), Dec., 1945, F.R.

T. ruraliformis (Besh.) Dixon, c. fr. sandhills, Braunton Burrows (4), May, 1914, W.W. ; sand dunes, Heacham (28), Aug., 1945, D.G.C. ; sand-dunes, Rosemarkie (106), Jan., 1942, U.D. ; c.fr. sandhills, Benone (I.40), May, 1939, A.M.I.

Barbula lurida (Hornsch.) Lindb., [= *B. trifaria* (Hedw.) Mitt], flat top of brick coping of watercourse, Watlington (23), Sept., 1945, abundant and luxuriant, E.W.J.; wall, Berwig (50), Aug., 1912, W.W.

B. tophacea (Brid.) Mitt., coastal cliffs of Keuper Marl, Aust. (34), June, 1945, in large cushions in places where there is trickling water, E.W.J.; Bradley (54), Summer, —, G.H.A. "Yes, though leafshape somewhat approaches that of *B. lurida*; areolation distinctly that of *B. tophacea*," W.W.

B. spadicea Mitt., banks of R. Wharfe, Bolton Woods (64), Sept., 1927, D.G.C.

B. cylindrica (Tayl.) Sch., on ground, Lambourne, Perranzabuloe (1), Dec., 1945, F.R.; limestone retaining wall in shade in wood, Tubney, near Oxford (22), Nov., 1945, E.W.J.

B. vinealis Brid., limestone walls, abundant, Kingston Bagpuize (22), Nov., 1945, E.W.J.; limestone walls, with *Tortula muralis* (c. fr.), perhaps commonest *Barbula* on this habitat round Oxford, Kidlington (23), Oct., 1945, E.W.J.

B. sinuosa (Mitt.) Braithw., on piece of limestone, shady lane bank, Tubney (22), Nov., 1945, E.W.J., "Yes, but much intermixture," W.W.; brickwork close to edge of R. Evenlode, Kidlington (23), Nov., 1945, E.W.J.

B. revoluta Brid., stone bridge, Braemore (11), Sept., 1945, J.H.G.P.; brick wall, Fordingbridge (11), Sept., 1945, J.H.G.P.; c.fr., stony calcareous ground, Vence, A.M.S. France, April, 1925, leg. C. H. Binstead, com. C.P.C.

B. unguiculata Hedw., Laceby (54), March, 1934, G.H.A.

Leptodontium gemmascens (Mitt.) Braithw., on thatch, Whitmore, Staplegrove, near Taunton (5), Dec., 1931, W.W.

L. flexifolium (Brid.) Hampe, in extensive carpets on humose sand, amongst bracken, Henwood, near Oxford (22), Dec., 1945. Taller than usual in this station owing to growth in bottom of sheltered gully, E.W.J.

Weisia crispa (Hedw.) Mitt., Woldnewton (54), April, 1916, G.H.A.

W. viridula Brid., [= *W. controversa* Hedw.] banks, Lambourne Hill, Perranzabuloe (1), Dec., 1945, F.R. "There is a slight amount of *W. microstima* (peristome absent, spores above 20 microns) in at least two of the packets, but as the two plants often occur near together, this is not surprising. Other ripe capsules examined had peristome teeth and the smaller spores of *W. controversa*," W.W.

W. calcarea (Nees & Hornsh.) C.M., vertical faces of soft moist limestone in sheltered position, N. aspect, near R. Wye, Staunton, near Monmouth (35, about 100 yds. from county boundary), March, 1940, E.W.J. "Some small *W. verticillata* is often present and in some packets is more abundant than *W. calcarea*. Some *Apolzia atrovirens* var. *sphaerocarpoidea* (De Not.) Massal is also present.

W. curvirostris (Hedw.) C.M. [= *W. recurvirostra* (Hedw.) Dixon], moist ledges, Clogwyn, Snowdon (49), Aug., 1919, W.W.; var. *commutata* (Mitt.) Dixon, c.fr. bank near waterfall Nant-y-Ffrith (50), Aug., 1912, W.W.; var. *insignis* Dixon, Ben Laoigh (87), Aug., 1929, leg. D. B. Bradshaw, com. J.S.T.

W. verticillata Brid., wall of limestone cave, Handspen (6), with *Chroococcus turgidens* (Kutz.) Naeg., W.W.; wet, stony ground with *Hypnum commutatum*, Tealby (54*), April, 1944, G.H.A.; c. fr. wet calcareous tufa, Thornton Glen, Ingleton (64), Aug., 1944, A.Th.; rocks at mouth of cave on coast near Port Patrick (74), June, 1916, A.Wi.; wet rock, Glencar (I.28), June, 1939, J.S.T.; dripping chalk, Ballintoy (I.39), Sept., 1945, A.M.I.

Trichostomum crispulum Bruch, Ease Gill near Leck (60), May, 1905, A.Wi.; Eggerslack, Grange-over-Sands (69), Apr., 1904, A.Wi.; var. *nigro-viride* Braithw., calcareous rocks, Berwig (50), Aug., 1912, W.W.

T. mutabile Bruch (*T. brachydontium* Bruch), earthy bank, Lambourne, Perranzabuloe (1), Dec., 1945, F.R.; rock, Buxton (57), April, 1912, W.W.; near Greystonely (60), May, 1904, A.Wi.; Muckcross (I.1), 1934, leg. D.B. Bradshaw, com. J.S.T.

T. tenuirostre (Hook. & Tayl.) Lindb., amongst rocks about Llyn Bochlywd (49), Sept., 1904, D.G.C. "This is not our usual form but the one mentioned in Dixon's British Mosses, p. 240, and resembling some forms of *T. mutabile*. The leaves are broader and often more quickly narrowed at the apex," W.W.

T. flavovirens Bruch, Saunton Sands (4), Apr., 1903, leg. E. M. Holmes, com. A.B.J.; c.fr. Saltmarsh, Dingwall (106), Feb., 1943, U.D.

Pleurochaete squarrosa (Brid.) Lindb., Perranporth sandhills (2), Aug., 1933, D.G.C.

Encalypta ciliata (Hedw.) Hoffm., rocks, Assdöl, Lier, Norway, July, 1944, P.S.

E. streptocarpa Hedw., near Tyndrum (88), May, 1913, leg. L. B. Hall, com. C.P.C.

Anoetangium compactum (Schleich.) Schwaeg. [= *A. aestivum* (Hedw.) B. and S.], wet vertical rock face under Bull Crag, High Knot, Borrowdale (70), alt. c. 1,200 ft., July, 1945, J. Carp. ; c.fr. approaching var. *pellucidum* Dixon, rocks in gully of Clifton Burn, Tyndrum (88), Aug., 1913. Leaves as in type for breadth of keel, cell size of type, W.W. ; c.fr. rocks, Roynstrand, Granvin, Norway, Aug., 1943, P.S.

Zygodon Mougeotii (Bruch) B. & S., damp rock, Exton (5), Aug., 1918, W.W. ; Dungeon Gill, Langdale (69), Sept., 1940, D.G.C. "Two forms present, a reddish brown one which is our usual form ; the other is darker below and has leaves more curled above and rather broader with basal cells often not so long and less incrassate," W.W.

Z. viridissimus (Brid.) R. Brown, var. *occidentalis* (Correns) Malta, wall, Denbies, Dorking (17), April, 1927, D.G.C. "This is rightly placed in var. *occidentalis* because of broader leaves and longitudinal divisions in the gemmae," W.W.

Ulotia Bruchii Hornsch., branches of elders and willows above Leigh Hill, Blackdowns (5), Dec., 1930, W.W. ; Alder trunks by Lawers Burn, Ben Lawers (88), alt. 900 ft., May, 1929, D.G.C. "As is often the case the material contains capsules which appear to belong to *U. crispa* var. *intermedia*," W.W., see (also Report for 1929, p.177).

U. crispa (Hedw.) Brid., with var. *crispula* (Bruch) Hamm., abundant on young hornbeam and beech, Lyons la Forêt, Normandy, June, 1939. Var. mixed with type and showing no intergrading, type had immature capsules while those of the var. were fully mature and empty, E.W.J. "The characters distinguishing this var. from the type are relative. In this plant the capsules are smaller than in the type but usually slightly longer than 1 mm. The difference in maturity between the type and var. from the same tree may be an important distinction," W.W.

U. phyllantha Brid., rocks Navijizal Bay (1), Aug., 1933, D.G.C. ; trees, Ruan Minor (1), July, 1910, A.Wi. ; elm trees, Lambourne, Perranzabuloe (1), Dec., 1945, F.R. ; trees, S. of Stornoway (110), Nov., 1902, leg. W. West, com. A.Wi. ; tree near Irvinestown (I.33), July, 1936, leg. D.B.B., com J.S.T.

U. Hutchinsiae Hamm., rocks near L. Cruttia (I.1), Aug., 1935, W.W.

Splachnum ampullaceum Hedw., c.fr. sheep's dung, Dunsgill, Ambleside (69), June, 1944, A.Tu.

Tayloria lingulata Lindb., Ben Lawers (88), alt. 3,000 ft., Aug., 1913, W.W.

Discelium nudum Brid., c.fr. Ram's Clough, Delph (63), March, 1880, leg. L. Tetlow, com. W.W.

Ephemerum serratum (Hedw.) Hampe, Mere (8), Sept., 1834, ex W. Wilson herb., com A.B.J. "Some plants have narrow subsecund leaves with long attenuate points and belong, I think, to var. *angustifolium* B. & S., but others combine the attenuate leaf point with a much broader leaf base," F.R.; var. *angustifolium* B. & S. stubble field, Pump-saint (44*), alt. c. 600 ft., Sept., 1944. "I take this to be var. *angustifolium* B. & S., the spores are c. 36-40 μ diam., and very finely papillose," E.W.J. "Yes, the narrow leaves with long attenuate points, often subsecund, and the spores only 40-50 μ in diameter and very finely papillose are all characters of var. *angustifolium*," F.R.

Physcomitrella patens (Hedw.) B. & S., hard ground made by tractor tracks in damp lane near Marcham (22), Aug., 1945, abundant. On 23rd June, 1945, there were only very immature green fruits, on 4th Aug., fruit was practically over except in dampest places, E.W.J. "A fine set," F.R.; vertical side of deep, wet cart cuts in ride, Burleigh Wood, Bladon (23), Aug., 1945, E.W.J.

Funaria fascicularis (Hedw.) Schp., soil, Taunton (5), March, 1911, W.W.; clover field, Bridstow (36), April, 1944, E.A.

Amblyodon dealbatus (Hedw.) Beauv., moist sand, Culbin Sands, Forres (95), Aug., 1942, U.D.

Paludella squarrosa (Hedw.) Brid., bog, Nesöytjernet, Asker, Norway, Oct., 1944, P.S.

Aulacomnium palustre (Hedw.) Schwaeg., damp place, Tamnagh (I.40), June, 1935, A.M.I.

A. androgynum (Hedw.) Schwaeg., Mortimer Heath, Reading (22), 1932, leg. J. R. Mathews, com W.W.; on wood, Mill Dam, Thornyholme (59), April, 1945, A. Tu.

Bartramia Ederi Brid., Uldale, near Sedbergh (65), Aug., 1918, A.Wi.; calcareous rocks near Grindelwald, Bernese Oberland, June, 1931, F.C.

B. ithyphylla Brid., Lawers (88), July, 1929, F.C.

B. pomiformis Hedw. var. *crispa* (Brid.) B. & S., Gorge of Conway, little below junction with Serw (50), Aug., 1926, A.Wi.

B. Halleriana Hedw., c.fr., on rock, partly under tree base, near waterfall, lower part of Comb Gill, Borrowdale (70), July, 1945, J. Carp.; Auchmore, Killin (88), April, 1920, A. Wi.; Vetaafossen, 2 km. N.W. of Goppollen, Ringeby, Norway, alt. 850 m., July, 1945, J. Lid.

Philonotis fontana (Hedw.) Brid. var. *adpressa* (Ferg.) L. & M., Byrud, Eidsvoll, Norway, Aug., 1912, leg. S. Sørensen, com. J. Lid. "Not var. *adpressa*, the leaf form and direction, and the tomentum are those of typical *P. fontana*. Dr. Watson agrees with me in this opinion," F.R.

P. caespitosa Milde., margin of Ham Cross Pond, Richmond Park, (17), Sept., 1934, C.P.C.

P. calcarea (B. & S.) Schp., male inflr., wet ground, Coombe Scar, Dent (65), May, 1944, A.Th.

Breuzlia arcuata (Brid.) Schp. [= *chrysocoma* (Hedw.) Lindb.], wet grassy ground by Loch Tay near Lawers (88), July, 1929, F.C.; shore of Loch Assynt (108), Nov., 1945, C.W.M.; Limestone rock, Kilnaboy, near Corofin (I.9), June, 1945, J.S.T.; mountain side near sea, Glencolumcille (I.35), June, 1938, A.M.I.; by mountain stream near Legavannon Pot (I.40), May, 1939, A.M.I.

Orthodontium gracile (Wils.) Schwaeg., c.fr., decayed log, Epping Forest (18), Sept., 1945, J.H.G.P. "This is var. *heterocarpum* Wats. (N.C.R. for 18), Dr. Watson agrees and notes that it is very much rarer on trees than on peat," F.R. "I agree," J.B.D.; var. *heterocarpum* Watson, c.fr., decaying Chestnut stump in coppice, Santon Downham (28), July, 1945, leg. E.W.J., A. P. D. Jones and R. W. Keay, com. E.W.J.; on peat amongst heather, Skipton Moor (64), July, 1945, A. Th.

Webera annotina (Hedw.) Schwaeg. var. *erecta* Correns, near Loch Killin, Whitebridge (96), Sept., 1942, U.D.

W. proligera Bryhn., roadside near Ventongimps, Perranza-buloe (1), Jan., 1946, F.R.

Bryum pendulum (Hornsch.) Schp., c.fr., stone wall, Achna-schillach, (105), June, 1939, U.D.

B. mamillatum Lindb., c.fr. damp sandy sea-shore with *Barbula tophacea* Mitt., Cleethorpes (54), summer, 1938. The record in Dixon's Handbook, p. 253, is based on a gathering by G.H.A. in 1919 from this locality, G.H.A.

B. inclinatum (Brid.) Bland., c.fr., damp sandy ground by sea-shore, Cleethorpes (54), Oct., 1945, G.H.A.

B. provinciale Philib., chalk downs near Lewes, Dec., 1916, leg. W. E. Nicholson, com. W.W.

B. capillare Hedw. var. *macrocarpum* Huebn., sandy sea-shore, Cleethorpes (54), June, 1925, G.H.A. "This is not the var. *macrocarpum*," W.R.S.; var. *elegans* Braithw., between stones of walled bank, Lambourne, Perranzabuloe (1*), Dec., 1945, F.R.

B. atropurpureum W. & M., var. *gracilentum* Tayl., masonry, Lambourne Hill, Perranzabuloe (1), Dec., 1945, F.R.

B. murale Wils., c.fr., newly mortared wall, Boherbreena (I.21), Oct., 1940, J.S.T.

B. argenteum Hedw., footpath, Bushmills (I.39), Nov., 1945, A.M.I.; gemmiparous in crevices of concrete beside weir, R. Trent, near Gunthorpe (56), Aug., 1945. Gemmae either sessile or borne on leafless stalks (up to 700 μ long) arising from axils of leaves, ovate, pale to olive brown, bud-like, L.B.C.T. "This interesting plant, with its barren growth of slender, closely-packed, gemmiparous stems, is evidently a parallel in the form-range of *B. argenteum* to the var. *gracilentum* of *B. atropurpureum*. It matches an Austrian gathering distributed by Dr. Bauer as No. 1840a of his "Musci europ. et amer. exsiccati," under the name *Bryum argenteum* L. forma *bulbifera* Torcka. In that, too, the bulbils may be stalked or sessile and the habitat (the cornice of a wall) also is similar. I do not know if the form is at all frequent in such situations; bryological handbooks usually have little to say about bulbils except when they are of use in determination of species," F.R.

^c *B. roseum* (Hedw.) Schreb., boulder in wood, Kilnaboy, near Corofin (I.9*), May, 1945, J.S.T.

Minium affine Bland., var. *elatum* B. & S., slack in sandhills, Freshfield (59), Sept., 1945, leg. H.F. Dovaston, and W.G.T., com. W.G.T.

M. undulatum Hedw., c.fr. on old lime kiln, Dent (65), May, 1944, A.Th.

M. stellare Hedw., old overgrown limestone wall, Millers Dale (57), July, 1930, F.C.; clay banks by stream, near Avoch (106*), Dec., 1942, U.D.

M. cinclidioides Huebn., Knockewart Loch (75), June, 1940, J.R.L.

Cinclidium stygium (Brid.) W. & M., bog near Malham Tarn (64), July, 1943, A.Th.

Fontinalis antipyretica Hedw. var. *gracilis* Schp., stream near Cockley Beck (69*), July, 1943, A.Tu. "More robust than usual," F.R. ; var. *cymbifolia* Nich., on sides of disused conduit, water still and placid, illuminated from above, strongly calcareous, near disused water mill, Lathkill Dale (57*), April, 1935, F.C.

F. Duriaei Schp., stones in brook, Agay (Esterel), Var., S. France, April, 1931, leg. C. H. Binstead, det. H. N. Dixon, com. C.P.C. "Evidently the same species as Mr. Binstead's 1931 gathering of *F. Duriaei* from Vernet, though a more crowded growth and hence of rather more slender habit," F.R.

Dichelyma falcatum (Hedw.) Myr, on rocks in stream, Sandungen, Aker, Norway, July, 1942, P.S.

Cryphaea heteromalla (Hedw.) Mohr, on conifer, Kilnaboy, near Corofin (I.9), May, 1945, J.S.T. ; on tree, Kilkea Park (I.13), Sept., 1940, J.S.T.

Neckera crispa Hedw., near Stroud (34), March, 1923, leg. W.R.S., com C.P.C. ; stream near Bridge of Lochy, Killin (88), July, 1929, leg. W. C. Millar, com. C.P.C. ; chalk hillside, West Dean (8), Sept., 1945, J.H.G.P. "Yes, the var. *falcata* Boul.," F.R. (N.C.R. for 8) ; var. *falcata* Boul., exposed limestone walls on hilltop, Middleton, near Wirksworth (57), Oct., 1927, F.C.

N. pumila Hedw. var. *Philippeana* (B. and S.) Milde, tree trunk, Glen Nevis (97), June, 1939, U.D.

N. complanata (Hedw.) Huebn., tree trunks, Tubbs Mill, Caerhayes (2), July, 1929, D.G.C. ; c.fr., on Blackthorn, Kilnaboy, near Corofin (I.9), May, 1945, J.S.T.

Homalia lusitanica Schp., wet sandstone rocks, near Algeciras, Cadiz, Spain, 1934, P.W.R.

Pterygophyllum lucens (Hedw.) Brid., by stream, Lambriggan (1), Dec., 1945, F.R. ; c.fr., near Eglwysbach (50), March, 1932, A.Wi. ; Meall nan Tarmachan (88), alt. c. 2,500 ft., Nov., 1945, C.W.M. ; damp bank, Glenade (I.28), June, 1939, J.S.T.

Leucodon sciuroides (Hedw.) Schwaeg., on ash, Braemore Wood (11), Sept., 1945, J.H.G.P. ; tree, Troutbeck, near Ambleside (69), June, 1908, A.Wi. ; wall, Great Langdale (69), Sept., 1945, A.Tu. ; approaching var. *morensis* (Schwaeg.) B. & S., on wall, Denbies, Dorking (17), March, 1927, D.G.C. "Yes, in the main, but a few bits are more slender," F.R.

Pterogonium gracile (Hedw.) Smith, rocks by stream from Watendlath Tarn (70), July, 1902, A.Wi. ; shaded rock, Förde, Avaldsnes, Norway, July, 1939, P.S.

Habrodon Notarisii Schp., trunk of *Acer pseudoplatanus*, Rosendal, Kvinnherad, Norway, Aug., 1943, P.S. "Gemmae in excellent condition in apical leaf tufts on some of the stems," F.R.

Antitrichia curtispindula (Hedw.) Brid., wall under trees, near Barden Tower, Wharfedale (64), Sept., 1945, A.Th.; wall, E. side Troutbeck Valley (69), Aug., 1936, A.Wi.; hedgerow, Skelwith Bridge, Ambleside (69), Sept., 1945, A.Tu.; R. Inver, Lochinver (108), Oct., 1945, C.W.M.

Porotrichum alopecurum (Hedw.) Mitt., shady bank in lane under trees, Lambourne, Perranzabuloe (1), Dec., 1945, F.R.; c.fr., rock near waterfall, Downhill (I.40), Mar., 1936, A.M.I.

P. angustifolium Dixon, Cressbrook Dale (57), Sept., 1936, A.Th.

Anomodon viticulosus (Hedw.) Hook. & Tayl., c.fr., Kilnaboy (I.9), May, 1945, J.S.T.

Pterigynandrum filiforme Hedw., Beech trunks in Beech-Spruce-Silver Fir forest, alt. 1,100 m., Bois des Cornées, Les Verrières, Swiss Jura, July, 1939, E.W.J.

Heterocladium heteropterum (Bruch) B. & S., c.fr., rocks in spray, Belle Grange Beck, High Wray (69), March, P.W.R.

Thuidium abietinum (Hedw.) B. & S., abundant in sandy road verges, near Santon Downham (28), July, 1945, E.W.J.; Mo, Tretten, Öyer, Norway, alt., 250 m., July, 1945, J. Lid.

T. hystricosum Mitt., chalk hillside, West Dean (8*), Sept., 1945, J.H.G.P.; chalk pit, Echinswell (12), Jan., 1907, A.B.J.; chalky bank in lane, Hemner Hill, Harting (13), April, 1941, E.C.W.

T. Blandovii (W. & M.) B. & S., bog, Nøsoytjernet, Asker, Norway, Oct., 1944, P.S.

Cylindrothecium concinnum (de Not.) Schp., in very short turf, dry banks in old chalk pits, Watlington (23), Sept., 1945; mostly thinly scattered in small bits, most luxuriant on crest of small scarps, E.W.J.

Myurium hebridarum Schp., rocks by R. Morar (97), May, 1945, C.W.M.; hills at rear of hotel, Lochboisdale, S. Uist (110), June, 1938, G.H.A.

Orthothecium rufescens (Brid.) B. & S., bank of R. Lune, near Sedbergh (65), April, 1886, leg. C. H. Binstead, com. A.Wi.; Creag-na-Caillich, near Killin (88), July, 1905, leg. J. A. Wheldon and A.Wi., com A.W.; by waterfall,

Lawers Burn, Ben Lawers (88), alt. 900 ft., May, 1929, D.G.C. ;
Meall-nan-Tarmachan (88), alt. c. 2,500 ft., May, 1944, C.W.M.

O. intricatum (Hartm.) B. & S., Yoredale limestone, N.E. side of Dent Crag (65), alt. 1,850 ft., Aug., 1920, A.Wi.

Camptothecium nitens (Hedw.) Schp., bog, Nesöytjernet, Asker, Norway, Oct., 1944, P.S.

Brachythecium glareosum (Bruch) B. & S., rocks, Hilt's Limestone Quarry, Fretchley, Ambergate, Derby (57), June, 1934, F.C.

B. albicans (Hedw.) B. & S., with *Hypnum cupressiforme*, c.fr., on thatched roof, Savernake Forest (7), Nov., 1913, leg. C. P. Hurst, com. A.B.J.

B. salebrosum (W. & M.) B. & S., Cotteral Clough (58), 1834, ex herb. W. Wilson, com A.B.J. ; " *B. glareosum* B. & S.," A.B.J. ; Mr. Jackson is right in calling this *B. glareosum*," J.B.D.

B. rivulare B. & S., wet place, Ashwood Dale, Buxton (57), April, 1912, W.W. ; *B. latifolium* (Lindb.) Philib. (=var. *latifolium* Husn.), Galdhö, Lom, Norway, Aug., 1889, leg. I. Hagen and Chr. Kaurin, com. J. Lid.

B. glaciale B. & S., c.fr., Dosafjell, Granvin, Norway, Sept., 1874, leg. N. Wulfsberg, com. J. Lid.

B. caespitosum (Wils.) Dixon, tree trunk Staplegrove, near Taunton (5), March, 1915, W.W.

B. lactum Br. eur., c.fr., Berchtesgaden, Bavaria, Sept. 1895, leg. Th. Suse, ex herb. H. Möller, com C.P.C. " Yes, but mixed with *Camptothecium sericeum* Lindb.," J.B.D.

B. collinum (Schl.) B. & S., Northern Knutshö, Oppdal, Norway, July, 1878, leg. F. Kiaer, com. J. Lid.

B. Ryanii Kaur., Virrik in Sandeherad at Sandefjord, Norway, April, 1891, leg. E. Jörgensen, com. J. Lid.

B. trachypodium (Funck.) B. & S., Knutshö, Oppdal, Norway, Aug., 1888, leg. C. Kaurin, com. J. Lid.

B. turgidum Hartm., c.fr., S. Knutshö, Oppdal, Norway, July, 1878, leg. F. Kiaer, com. J. Lid.

Hyocomium flagellare (Sm.) B. & S., Minaun waterfall, Achill Island (I.27), May, 1935, A.M.I.

Eurhynchium pumilum (Wils.) Schp., on ground under trees^c Lambourne Hill, Perranzabuloe (1), Dec., 1945, F.R.

E. Teesdalei (Sm.) Schp., c. fr., stone beside stream, Downhill (I.40), July, 1940, J.S.T.

E. tenellum (Turn.) Milde, c.fr., Limestone walls, Seal Chart, Sevenoaks (16), Nov., 1904, leg. E. M. Holmes, com. A.B.J.; c. fr., Limestone rocks, Killet Seeds (60), March, 1905, A.Wi.; Arnside (69), Aug, 1933 and Aug., 1935, A.Wi.

E. myosuroides (Sm.) Schp., Beech trunks, Savernake Forest (7), Dec., 1906, A.B.J. "A slender form," J.B.D.; c. fr., woods among quarry heaps, Tilberthwaite, Coniston (69), Sept., 1945, A.Tu., var. *brachythecioides* Dixon, dry rocks, Corrie Ardran, Crianlarich (88), June, 1940, E.C.W.

E. circinatum (Brid.) B. & S., limestone rocks, shore of Lough Inchiquin (I.9), June 1944, J.S.T.; walls, limestone district, Kilnaboy, near Corofin (I.9), May, 1945, J.S.T.

E. strigosum (W. & M.) B. & S. [= *pulchellum* (Hedw.) Jennings], wall-top, limestone, Torquay (3), Oct., 1936, leg. C. H. Binstead, com. E.A. "The late C. H. Binstead sent me this plant years ago. I call it *Brachythecium caespitosum* Dixon, and both Dixon and Nicholson agreed to this at the time," J.B.D.; var., *divcrsifolium* Lindb., Vernet-les-Bains, Pyrenées Orientales, April, 1931, leg. C. H. Binstead, com. E.A. "May pass, at its best there seems little to distinguish this variety," J.B.D.

E. striatum (Hedw.) Sch., sensu strictu, boulder in *Alnus incana* forest, Haaland, Kvinnherad, Norway, Aug., 1943, P.S.

E. Zetterstedtii Störmer, spec. nov. on ground in *Picea abies* forest, Oskne, Lier, Norway, July, 1944, P.S. See Recent Bryological Publications.

E. murale (Hedw.) Milde var. *julaceum* B. & S., shaded calcareous stones and rocks, Donnington, near Hereford (36), Jan., 1938, leg. C. H. Binstead, com. C.P.C.

Sematophyllum micans (Wils.) Braithw., moist, steeply sloping sandstone rocks in oakwood, Derry-Cunihy Wood (I.1), Aug.-Sept., 1936, P.W.R.

Plagiothecium depressum (Bruch) Dixon, on piece of limestone on ground in deep shade, woods near the Evenlode, East End (23), Aug., 1945. In general a rare species in this district, but locally abundant, leg. E.W.J. and J.P.M.B., com. E.W.J.

P. pulchellum (Sm.) B. & S., c.fr., roadside near Ro Wen (49), Jan., 1944, A.Wi.

P. silesiacum (P. Beauv.) B. & S., rotten silver-fir log, plantation, Sheringham Park (27), Sept., 1941, D.G.C.

P. sylvaticum (P. Beauv.) B. & S., Haaland, Kvinnherad, Norway, Aug., 1943, P.S.

Amblystegium confervoides (Brid.) B. & S., Oslo, Norway, Oct., 1880, leg. F. Kiaer, com. J. Lid.

A. serpens (Hedw.) B. & S. var. *salinum* Carr., damp Old Red Sandstone, Castlesea Bay, near Arbroath (90), May, 1945, U.D.

A. fluviatile (Hedw.) B. & S., rocks in R. Usk, Llanspyddid (42), April, 1944, E.W.J.

Hypnum riparium Hedw., near Hinnell (90), submerged in pool, June, 1945, approaching *f. fontinaloides* Moenk., U.D.; on earth, Landbrukshögskolen, Aas, Norway, April, 1944, P.S.; var. *longifolium* (Schultz) Schp., on willows, Umbra (I.40), May, 1936, A.M.I.

H. chrysophyllum Brid., Gatebarrows Wood (60), July, 1902, A.Wi. "This is *H. elodes* Spruce," J.B.D., "*H. elodes* Spr.," P.W.R.

H. aduncum Hedw., Ainsdale, Southport (60), June, 1865, ex herb. W. Wilson, com. A.B.J., "a form," J.B.D.; Ainsdale, Southport (60), July, 1861, ex herb. W. Wilson, com. A.B.J. "This is *H. Wilsoni* Schp.," J.B.D.

H. Sendtneri Schp., Hale Moss (58), Apr., 1865, ex herb. W. Wilson, com. A.B.J. "No auricles, not *H. Sendtneri*, I would say *H. revolvens* Swartz.," J.B.D.; "*H. revolvens*, the basal cells of the leaves and the large thin-walled cells of stem epidermis are quite different from *H. Sendtneri*," P.W.R.; forma *gracilescens* Sanio, Irby Bog (54), 1910, G.H.A. "I would say *H. aduncum* Hedw. (forma)," J.B.D.; "A form of *H. aduncum*," P.W.R.

H. Wilsoni (Schp.) Ren., slack in sandhills, Formby (59), June, 1911, W.G.T.

H. fluitans Hedw. var. *Jeanbernati* Ren., Bowland Knotts (64), May, 1917, A. Wi.; plateau above Canness, Glen Isla (90*), July, 1945, alt. 2,800 ft., submerged in deep peaty pool, U.D.; var. *atlanticum* Ren., Greygarth Fell (60), alt. 2,040 ft., July, 1901, A.Wi. "? var., leaves very long and finely acuminate," J.B.D., "I do not really know the vars. of *H. fluitans* well enough to give an opinion, but this agrees quite well with a specimen labelled var. *atlanticum* Ren. in my herbarium," P.W.R.; var. *gracile* Boule., W. side Burn Moor (60), Sept., 1900, A.Wi.; var. *falcatum* Schp., Moor about one mile S. of Gaisgill (69), June, 1918, A.Wi.

H. vernicosum Lindb., marshes and around spring flushes at head of Annell Valley, Caio (44), July, 1944, alt. 800 ft., locally very abundant and the only *Harpidium* present, E.W.J. ; Killington Common (69), Sept., 1920, A.Wi. "Yes, with stems of *H. scorpioides* Hedw.," J.B.D. ; Knockewart Loch (75), June, 1940, J.R.L. ; Little Loch Mearns (76*), June, 1941, J.R.L. "Yes, leaves plicate," J.B.D.

H. revolvens Smith, Little Haldon (3), Aug., 1918, pale form, leg. W.R.S., com. A.Wi. ; c.fr., Knockewart Loch (75), June, 1940, J.R.L. ; by spring, Castle Rock (I.40), March, 1936, A.M.I. "This is *H. falcatum* Brid.," J.B.D.

H. falcatum Brid., Tatham Beck, Hindburndale (60), May, 1899, A.Wi. ; var. *virescens* Schp., stone in small stream, Crummockdale (64), Oct., 1945, A.Th.

H. sulcatum Schp. (*Cratoneuron glaucum* Broth. var. *sulcatum* Broth.), Sör-Trönd, Vaarstien, Oppdal, Norway, July, 1904, leg. E. Ryan, com. J. Lid.

H. cupressiforme Hedw. var. *resupinatum* Schp., on trees, Lambourne (1), Dec., 1945, F.R. ; c.fr., on branch, Lambriggan (1), Dec., 1945, F.R. ; var. *filiforme* Brid., Savernake Forest (7), Nov., 1906, leg. A.B.J. and F. Comyns, com. A.B.J. ; abundant on tree trunk, Siddown Hill, Highclere (12), Dec., 1906, leg. A.B.J. and F. Comyns, com. A.B.J. ; var. *minus* Wils., on birch, foot of Morrone, Braemar (92*), April, 1944, U.D. ; c.fr., dead birch stem, woods above Ardlui (99*), Aug., 1944, J.R.L. "? var. *filiforme*," J.B.D. "I should pass this as var. *minus* Wils., but it is not a very well-marked form," P.W.R. ; var. *tectorum* Brid., sand-dunes, Heacham (28), Aug., 1945, D.G.C.

H. imponens Hedw., damp heath, White Moor, Lyndhurst (11), March, 1943, P.W.R. ; peaty moorland path, Potrail Water (77*), alt. 1,300 ft. March, 1944, A.D.B.

H. Patientiae Lindb., by Milford Lake, Highclere (12), Dec., 1906, leg. A.B.J. and F. Comyns, com. A.B.J. ; woodland ride, Whitecross Green (23), Aug., 1945, E.W.J. ; ditch by roadside, Stickle Pike, Ulpha (69), alt. c. 800 ft., Aug., 1940, P.W.R. ; (*Hypnum arcuatum* Lindb.), roadside, Nesöya, Norway, April, 1943, P.S.

H. hamulosum B. & S., glacial mounds between Greenfield and Horton-in-Ribblesdale (64), May, 1944, leg. C. A. Cheetham, com. A.Th.

H. molluscum Hedw. var. *condensatum* Schp., wet ground on glacial drift, Catlow, Nelson (59*), A.Tu. ; var. *fastigiatum*

Bosw., calcareous rocks near Hallaig, Raasay (104), June, 1940, U.D.

H. palustre Huds. [= *luridum* Hedw.], c.fr., stonework by Thames, Richmond (17), March, 1913, A.B.J.; stones in workhouse garden, Towcester (32), Nov., 1905, A.B.J.; rocks in stream, Oksnevoll, Lier, Norway, July, 1944, P.S.; var., c.fr., wood near Porth Dinorwic (49), May, 1858, ex herb. W. Wilson, com A.B.J. "This is a very variable species and many forms are described. Wilson's plant is a frequent form and more or less typical of the species," J.B.D.

Hygrohypnum montanum (Wils.) Broth., rocks in little stream, Sandungen, Aker, Norway, July, 1941, P.S. "This is a N. American species, in habit like a very small *H. palustre* var. *hamulosum* B. et S.," J.B.D.

Hypnum dilatatum Wils., rocks in stream, Glassaasen, Lier, Norway, July, 1944, P.S.

H. scorpioides Hedw., Loch Glendhu (108), Nov., 1945, C.W.M.; shallow peat, Portballintrae (I.39), Aug., 1940, A.M.I.; Murumidmyra, Ringsaker, Norway, Sept., 1942, J. Lid.

H. trifarium W. & M., mountain bog, near Lochan-nam-Breac, Invermoriston (96*), July, 1943, U.D.

H. cordifolium Hedw., Cumbernauld Glen (86), June, 1940, J.R.L.; Umbra Swamp, Downhill (I.40*), May, 1940, A.M.I.

H. giganteum Schp., bog, Felthorpe (27), Nov., 1902, leg. W. H. Burrell, com., A.Wi.; Knockewart Loch (75), June, 1940, J.R.L. "This is *H. cordifolium* Hedw.," J.B.D.; marshy ground, Benone (I.40), May, 1939, J.S.T.

Hylocomium rugosum (Hedw.) de Not., very abundant locally in short, dry, sandy turf near Brandon (26), July, 1945, E.W.J.; in grass, among calcareous rocks, Deepdale, Buxton (57), July, 1934, F.C.; Hutton Roof Crag (69), June, 1920, A.Wi.; Ben Lawers (88), Oct., 1942, Meall-nan-Tarmachan, Killin (88), Nov, 1945, C.W.M.

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

Pogonatum tortile (Sw.) Brid., c.fr., loamy banks by road, near Grand Etang, Grenada, Brit. West Indies, alt. c. 1,800 ft., 1929, leg. P. W. Richards, no. 952, det. W. C. Steere.

Leptodontium aggregatum C.M., Java Occ., Res. Priangan, G. Gede, in decl. G. Pangrango, eiusque in cacumine, 2,700-3,060 m., leg. Fr. Verdoorn, VIII., 1930 (24), det., H. N. Dixon.

Leucoloma serrulata Brid., tree trunk in rain forest, Grand Etang, Grenada, Brit. West Indies, alt. c. 1,800 ft., 1929, leg. P. W. Richards, No. 944, det. R. S. Williams.

Philonotis sphaerica (Hedw.) Brid., c. fr., damp clayey bank by road, Morne Bleue, Trinidad, Brit. West Indies, alt. c. 1,900 ft., 1929, leg. P. W. Richards, No. 919, det. W. C. Steere.

Bryum pallenticoma C.M., c.fr., on rocks, mainland opposite New Island, Recherche Archipelago, W. Australia, Feb., 1944, leg. G. P. Whitley, det. E. B. Bartram, com. A.D.B.

Thuidium schistocalyx (C.M.) Mitt., limestone under trees, Welchman's Hall Gully, Barbados, Brit. West Indies, 1929, leg. P. W. Richards, No. 967, det. W. C. Steere.

Vesicularia amphibola (Spr.) Broth., c.fr., limestone under trees, Welchman's Hall Gully, Barbados, Brit. West Indies, 1929, leg. P. W. Richards, No. 969, det. W. C. Steere.

HEPATICS.

EUROPEAN (British and Continental).

Riccia commutata Jack, c.fr., on soil in cultivated field, Rowford, near Taunton, Somerset (5), Nov., 1945, W.W.

R. glauca L., Pull Garth Wood, N. Lancs. (69), Sept., 1940, D.G.C.

R. fluitans L., Farley Heath, Womersh, Surrey (17), Sept., 1945, J.C.

Dumortiera hirsuta (Reinw.) Bl. & Nees., c. anth., Torc Falls, Killarney (I.2), Sept., 1936, P.W.R.

Marchantia polymorpha L., Aasmyra in Aas, Norway, Sept., 1944, P.S.

Metzgeria furcata (L.) Dum., tree stump between Sea Mills and Portincross, Ayrshire (75), May, 1939, J.W.

M. conjugata Lindb., on shaded rock, Bjorge in Selfjord, Norway, Aug., 1937, P.S.

M. pubescens (Schrank) Rad., Mundheim in Varaldsoy, Norway, Aug., 1943, P.S.

Pellia Fabbroniana Raddi, Skeffington Wood, Leicester (55), Sept., 1945, F.A.S.

Blasia pusilla L., Pull Garth Wood, N. Lancs. (69), Sept., 1940, D.G.C. ; Strath of Byllster, Caithness (109), Aug., 1899, Lillie collection.

Fossombronia angulosa (Dicks.) Raddi, Pendour Cove, Zennor, Cornwall (1), April, 1940, E.W.J.

Gymnomitrium crenulatum Gottsche, rocks near Ullswater, (69 or 70), A.Tu.

G. alpinum (Gottsche) Schiffn., Shanks of Inchgrundle, Glen Esk, Angus (90), Sept., 1945, U.D.

Marsupella Funckii (Web. & Mohr.) Dum., Tilberthwaite, Westmorland (69), June, 1944, A.Tu. "Seems correct, but no gametangia examined," W.W.

M. emarginata (Ehrh.) Dum., Voss, Norway, Aug., 1936, J.L.

M. aquatica (Lindenb.) Schiffn., Rowardennan (86), June, 1940, J.R.L.

Alicularia compressa (Hook.) Nees, rocks in stream below Round How, 2,000 ft., Cumberland (70), May, 1945, D.G.C. ; stream in Wrynose Pass (69 or 70), July, 1943, A.Tu. ; in deep extensive masses in mountain stream, alt. 1,700 ft., Pyg Track, Snowdon, Caernarvon, (49), approaching var. *gigantea* Macv., April, 1945, leg. et det. A.D.B., conf. F.E.M.

Eucalyx hyalinus (Lyell) Breidl., on bank near Stockley Bridge, Seathwaite, Cumberland (70), May, 1945, D.G.C. "Cells too large and trigones too large for *E. hyalinus*. The characters given above are those of *E. paroicus* and both antheridia and archegonia occur on the same shoot," W.W. ; at top of stones at edge of river, in oak woods at Abergorlech, Carmarthenshire (44), July, 1945, E.W.J. "Seems right, trigones rather large but cells much smaller than in *E. paroicus*," W.W.

Aplozia crenulata (Sm.) Dum., Watten, Caithness (109), Nov., 1900. Lillie collection.

Gymnocolea inflata (Huds.) Dum., bog, Whitmore Common, Surrey (17), April, 1926, D.G.C.

Lophozia barbata (Schmid.) Dum., frequent in rough hill pastures and *Calluna* heath at 800-1,000 ft., but always very much mixed with other mosses. Caw, Carmarthenshire (44), Sept., 1944, F.W.J. "Probably owing to the shading by the accompanying mosses the cells are slightly larger, trigones rather smaller and cuticle less granulose than in wall plants. The whole plant is also of a more straggling habit," E.W.J.

Sphenolobus Pearsoni (Spruce) Steph., damp perpendicular rocks, near Stonethwaite, Cumberland (70), June, 1940, U.D. ; moist vertical rock, north aspect, Pistyll-y-llyn, Cardiganshire (46), Sept., 1945, P.W.R.

Anastrepta orcadensis (Hook.) Schiffn., Caithness (109), June, 1904, leg. Rev. D. Lillie.

Plagiochila asplenioides (L.) Dum. var. *humilis* Lindenb., sandy soil by river, Glen Doll, Clova, Angus (90), Oct., 1945, U.D. "This seems to be correct but many intermediates between var. *humilis* and var. *minor* occur." W.W. ; var. *major* Nees, growing over an area of several square yards mixed with *Hylocomium splendens*. In separation for distribution, the roots and stems (very brittle) have been somewhat broken. Chepstow (34), July, 1945, leg. L.C.B.T., det. A.D.B.

P. spinulosa (Dicks.) Dum., rocks, Cwm-y-glo, Carnarvonshire (49), Aug., 1924, D.G.C.

Leptoscyphus anomalus (Hook.) Mitt. (*Mylia anomala* Gray), sphagnum bog, Dersingham Fen, W. Norfolk (28), Sept., 1945, D.G.C.

Lophocolea bidentata (L.) Dum., Norway, Aug., 1943, P.S.

Chiloscyphus polyanthus (L.) Corda, on rocks in a little stream, Aas, Norway, July, 1945, P.S. "Better with var. *fragilis* because of the large and almost transparent cells, rarity of underleaves and habitat," W.W.

Saccogyna viticulosa (Sm.) Dum., quarry, Elterwater, Westmorland (69), Sept., 1945, A.Tu.

Cephalozia bicuspidata (L.) Dum., hedge bank, Billester, Caithness (109), May, 1899, Rev. D. Lillie. "With other material and not separated," W.W.

C. media Lindb. (= *C. lunulaefolia* Dum.), Ousdale, Caithness (109), June, 1903, Rev. D. Lillie.

C. fluitans (Nees) Spruce, submerged, floating outwards from vertical bank of peaty moorland pool, 1,750 ft., High Scawdel, Borrowdale, Cumberland (70), Aug., 1944, leg. A.D.B., det. F.E.M.; Slorsteinfjellen, Norway, submerged in a pool, Aug., 1944, P.S.

Odontoschisma Sphagni (Dicks.) Dum., amongst *Polytrichum strictum*, Broughton Mills (69), June, 1944, F.A.S. "Erect habit more or less due to the mechanical pressure of the *Polytrichum*. Probably on cultivation with *Sphagnum*, normal plants would be produced," W.W.

O. denudatum (Nees) Dum. (= *Cephalozia denudata* Spruce), Badlipster, Caithness (109), Sept., 1903, Rev. D. Lillie. "Present, but much intermixture," W.W.

Adelanthus decipiens (Hook.) Mitt., moist rocks, Rhaidr Du, Dolgelly, (48), Sept., 1943, P.W.R.

Bazzania trilobata (L.) Gray, Arthro Valley, Merioneth (48), April, 1914, J. C. Wilson; Llanfrothen (48), Nov., 1907, leg. S. J. Owen; on rocks, Longthwaite Wood, Borrowdale, Cumberland (70), May, 1945, D.G.C.

B. tricrenata (Wahl.) Pears., wet rocks, Eagle Crag, Borrowdale, Cumberland (70), May, 1945, D.G.C.; at 1,000 ft., Ben Venue, Trossachs (87), Sept., 1944, J.W.; Johnbu, Norway, Aug., 1937, P.S.

Lepidozia pinnata (Hook.) Dum., on rocks, Eagle's Nest, Killarney (I.2), Aug., 1935, D. A. Jones; tree in low swampy oakwood, Killarney (I.1), Aug., 1936, P.W.R.

L. reptans (L.) Dum., Caithness (109), Sept., 1901, Rev. D. Lillie. "Much *Diplophyllum albicans*," W.W.

L. setacea (Web.) Mitt., East Watten Moss, Caithness (109), Aug., 1899, Rev. D. Lillie. "With other material," W.W.

Anthelia julacea (L.) Dum. f. *gracilis* (Hook.), in rill above Sprinkling Tarn, Cumberland (70), May, 1945, D.G.C.

Herberta adunca (Dicks.) Gray, on rocks, Haaland (Norway), Aug., 1943, P.S.

H. Hutchinsiae (Gottsche) Evans, on rocks in open 6-10 feet above stream, High Knott, Borrowdale, Cumberland (70), July, 1945, J.C.

Ptilidium pulcherrimum (Web.) Hampe, on trunk of old birch, Glen Doll, Clova, Angus (90), Oct., 1945, U.D.

Trichocolea tomentella (Ehrh.) Dum., on wet earth, Aasmyra (Norway), July, 1945, P.S.

Scapania compacta (Roth) Dum., Loudoun Hill, Ayrshire (75), Aug., 1941, J.R.L. ; in thin, stony turf in an old quarry, Forest of Dean, Glos. (34), Mar., 1940, E.W.J. ; on dry rocks, Stanner Rocks, Radnor (43), Oct., 1945, E.W.J. "Much greener form than usual. Antical lobe often more reflexed and sometimes even crossing the stem," W.W.

S. obliqua (Arnell) Schiffn., mountain stream, Grasmere (69), Sept., 1944, A.Tu. "Yes, it is *S. obliqua*, antical lobe decurrent and keel arched," W.W.

S. gracilis (Lindb.) Kaal. (= *S. resupinata* Dum.), Dunnet Head, Caithness (109), May, 1900, Rev. D. Lillie. "Much intermixed with *Diplophyllum albicans*, etc.," W.W. ; Shetland (112), Aug., 1907, det. Macvicar, com. Rev. D. Lillie ; Watten, Caithness (109), Sept., 1900, Rev. D. Lillie. "Much intermixed with various other material," W.W.

S. undulata (L.) Dum., rigid form, submerged in pool, (63), June, 1933, F.E.M.

Radula voluta Tayl., moist rocks in slight shade, Torc Falls, Killarney, (I.2), Sept., 1936, P.W.R.

Madotheca laevigata (Schrad.) Dum., var. *obscura* Nees, Glen Loin, (east side) (99), April, 1940, J.R.L. "As usual with some plants approaching towards type," W.W.

M. platyphylla (L.) Dum., near Aas church, on rocks in stream, Norway, July, 1945, P.S. "Aquatic habitat indicates *M. Porella* and there are certainly approaches to it present. Some underleaves, however, are often large and have their

margins reflexed and the postical lobes are decurrent as in *M. platyphylla* with which the general habit agrees." W.W.

M. Porella (Dicks.) Nees, stream running into the Arthro, Merioneth(48), Aug., 1909, leg. J. C. Wilson, com. D. A. Jones.

Lejeunia cavifolia (Ehrh.) Lindb. emend. Buch., bank of R. Rothay, S. of Grasmere, Westmorland (69), Aug., 1940, D.G.C. "In some of the plants the orientation of the convex lobes is suggestive of *L. patens*, but the underleaves are usually somewhat larger than the postical lobes and their upper marginal cells are not strikingly crenulate. In the absence of perianths it is safer to refer the plant to *L. cavifolia*, but it is not *L. cavifolia* emend. Buch, in which the relations of antical lobe to postical lobe to underleaf are 6-9 : 1 : 2-4. In *L. planiuscula* emend. Buch, they are 3 : 1 : 0-7. In this specimen they are 2-3.5 : 1 : 0.9-1.2. Most of our western British material falls under *planiuscula* but there is much irregularity in the relative sizes of the various parts," W.W.

Frullania dilatata (L.) Dum., walls, Langdales, Westmorland (69), Sept., 1945, A.Tu.

Anthoceros crispulus (Mont.) Douin, on soil in cultivated field, Rowford, near Taunton, Somerset (5), Nov., 1945, W.W.

HEPATICS.

Extra-European.

Plagiochasma crenulatum Gottsche, intermingled with *Asterella echinella* (Gottsche), Underw., Tamazunchale, San Luis Potosi, Mexico, about lat. 21° 15' N., long. 98° 46' W., on dirt on rock outcrop along river one mile east of town. Coll. T. C. Fry and E. M. Frye, det. Ruth Svihla, Jan., 1941, comm. A.D.B.

Frullania eboracensis Gottsche, on bark of oak, Santa Claus camp ground, Spencer Co., Indiana, U.S.A. Coll. & det. Winona H. Welch, 1937, comm. A.D.B.

Porella platyphylloidea (Schwein.) Lindb. At base of tree in woods near Diamond Lake, Cass Co., Michigan, U.S.A., coll. D. Richards, det. P. D. Voth and D. Richards, June, 1939, comm. A.D.B.

P. navicularis (Lehm and Lindb.), Bowman's Creek, Challum Co., Washington, coll. Svigla, June, 1931, comm. A.D.B.

**Hepatics from the collection of the
late W. E. Nicholson.**

Aneura sinuata (Dicks.) Dum. var. *major* (Lindb.), Portland (9), April, 1922, W.E.N.

Gymnomitrium adustum Nees, North-west side Snowdon summit (49), Aug., 1912, leg. D. A. Jones & W. Ingham.

G. alpinum (Gottsche) Schiffn., Lochnagar (92), July, 1912, W.E.N.

Marsupella condensata (Ångstr.) Kaal., Ben Lawers (88), July, 1915, W.E.N.

Eucalyx paroicus (Schiffn.) Macv., Coledale Beck, Braithwaite, Lake District (70), July, 1919, W.E.N.

Lophozia badensis (Gottsche) Schiffn., Carbis Bay, Cornwall (1), April, 1923, W.E.N.

Sphenolobus saxicolus (Schrad.) Steph., above Glen Loch, Glenmore Forest (97), July, 1920, W.E.N.

S. minutus (Crantz) Steph., Abisko, Lapland, Aug., 1907, leg. H. N. Dixon & W. E. Nicholson.

Harpanthus Flotowianus Nees, locality ? "Near the Cairnwell," M.S. Nich., July, 1912, W.E.N.

Saccogyna viticulosa (Sm.) Dum., Bochym, Lizard Peninsula, Cornwall (1), Nov., 1938, W.E.N.

Cephalozia connivens (Dicks.) Lindb., Ashdown Forest, Sussex (14), Dec., 1908, W.E.N.

C. macrostachya Kaal., small form. Note by W.E.N. "Sent to Macvicar, 17th April, 1912, L. J. Cocks, 1913," leg. W.E.N.

C. catenulata (Hüben) Spruce, locality : name illegible on W.E.N's. original packet enclosed, July, 1926.

Cephaloziella rubella (Nees) Warnst., moist sandy bank near Withyham, Sussex (14), Sept., 1906, leg. W.E.N.

C. Massalongi (Spruce) K. Müll., wet rocks, Carbis Bay, Cornwall (1), 7th May, 1932, W.E.N.

C. Nicholsoni Douin & Schiffn., wall, Carbis Bay, Cornwall (1), Nov., 1939, W.E.N.

C. dentata (Raddi) K. Müll., Lizard Down, Cornwall (1), May, 1930, W.E.N.

C. calyculata (Dur. & Mont.) K. Müll., Hayle river, Cornwall (1), April, 1923, W.E.N.

Scapania nimbosa Tayl., Glen Nevis, June, 1906, W.E.N.

Cololejeunea microscopica (Tayl.) Schniffn., near Fort William Argyllshire (98), July, 1923. leg. W.E.N.

Lejeunea planiuscula (Lindb.) emend. Buch, rocks by roadside near Bochym, Lizard (1), Nov., 1935. W.E.N.

Frullania microphylla (Gottsche) Pears., Clodgy, St. Ives, Cornwall (1), Nov., 1919, W.E.N.

CENSUS CATALOGUES.

LISTS OF NEW VICE-COUNTY RECORDS.

SPHAGNA.

This list includes all new V.C. records reported since the last list was published in the Report 1940-43 except those marked with an asterisk (*) in this Report on pp. 250-252, which are not repeated here.

Sphagnum fimbriatum Wils. var. *intermedium* Russ., Drum Dhu (42), S.W. ; Ethie Wood, near Arbroath, also Restneth Bog near Forfar (90), U.D. ; Rothiesholm Hill, Stronsay, Orkney (111), J.S. det. A.Th. ; var. *laxifolium* Warnst., Birker Moor (69), Prof. W. H. Pearsall, det. A.Th.

S. Girgensohnii Russ. var. *robustum* Warnst., Canness, Glen Isla (90), U.D. ; var. *microcephalum* Warnst., near Ardlui, Loch Lomond (99), E.M.L. ; Ethie Wood, near Arbroath (90), U.D. ; var. *stachyodes* Russ., Glencoe (98), F.A.S., det. A.Th.

S. Russowii Warnst., Llandrindod Wells (43), S.W.

S. Warnstorffii Russ., below Spin, South Uist (110), Prof. W. H. Pearsall, det. A.Th.

S. rubellum Wils., Drum Dhu (42), S.W.

S. quinquefarium Warnst., Llandrindod Wells (43), S.W.

S. plumulosum Röhl, by Loch Kinord, Dinnet (92), U.D.

S. compactum D.C. var. *subsquarrosum* Warnst., Cairn Leuchan, near Ballater (92), U.D.

S. squarrosum Pers. var. *spectabile* Russ., Nant Braich-y-Rhiw, near Towyn (48), A.D.B., det. E.M.L. ; var. *subsquarrosum* Russ., Llandegly Rocks, New Radnor (43), S.W. ; Greenham Common, Berks (22), J.P.M.B. ; var. *imbricatum* Schp., Morrone, Braemar (92), U.D.

S. riparium Ångstr., Cairn Leuchan, near Ballater (92), U.D.

S. amblyphyllum Russ. var. *macrophyllum* Warnst., Llyn Ogwen (49), S.W., det. A.Th. ; var. *mesophyllum* Warnst., Gilwern, Llandrindod Wells (43), S.W., det. E.M.L.

S. balticum Russ., Berks. (22), J.P.M.B.

S. pulchrum Warnst., Elan Valley, Rhayader (43), F.A.S., det. A.Th.

S. recurvum P. de B. var. *robustum* Breidl., Co. Clare (I.9), J.S.T., det. A.Th.; near Loch Brandy, Clova (90), U.D.; var. *majus* Ångstr., Gilwern, Llandrindod Wells (43), S.W., det. E.M.L.; Cairn Leuchan, near Ballater (92), U.D., det. A.Th.

S. fallax von Klinggr., Nant Gwernol (48), A.D.B., det. A.Th.

S. cuspidatum Ehrh. var. *falcatum* Russ., Cairn Leuchan, near Ballater (92), U.D.; Llangynwyd (41), F.A.S. det. A.Th.; var. *submersum* Schp., the Vat Burn, near Cambus o'May (92), U.D.; var. *plumosum* Bryol. germ., the Vat Burn, near Cambus o'May (92), U.D.; Twiston Moor (59), A.Tu.; var. *plumulosum* Schp., Cairn Leuchan, near Ballater (92), U.D.; Isle of Rhum (104), Prof. W. H. Pearsall, det. A.Th.

S. obesum Wils., Kinloch, I. of Rhum (104), Cook and Clarke; Rothiesholm Hill, Stronsay (111), J.S., det. A.Th.

S. inundatum Schp. var. *robustum* Warnst., S. Uist (110), Prof. W. H. Pearsall, det. A.Th.; var. *ewrycladum* Warnst., by Loch Kinord, Dinnet (92), U.D.; Austwick Moss (64), A.Th.; var. *densum* Warnst., summit of Sgaoth Ard (110), C.V.B.M., det. A.Th.; var. *lancifolium* Warnst., Feed Wood, near Ravensdale (I.31), J.S.T., det. A.Th.; by Loch Kinord, Dinnet (92), U.D.

S. auriculatum Schp. var. *ovatum* Warnst., plateau above Canness, Glen Isla (90), U.D.; var. *laxifolium* Warnst., White Hill of Auchterhouse, Sidlaw Hills (90), U.D.; var. *canovirescens* Warnst., Ethie Wood near Abroath (90), U.D.; var. *racemosum* Warnst., Feede Woode, near Ravensdale (I.31), J.S.T., det. A.Th.; Austwick Moss (64), A.Th.

S. crassycladum Warnst., Llandigley Rocks, New Radnor (43), S.W.; var. *magnifolium* Warnst., Burnham Beeches (24), J.P.M.B., det. A.Th.; Foel y Fridd, near Machynlleth (48), R. Burn, det. J.P.M.B.; var. *intermedium* Warnst., near Maesteg (41), F.A.S., det. A.Th.; Austwick Moss (64), A.Th.

S. Camusii Card., by Loch Kinord, Dinnet (92), U.D.; plateau above Canness, Glen Islay (90), U.D.; S. Uist (110), Prof. W. H. Pearsall, det. A.Th.

S. turgidulum Warnst., Upper Loch Torridon (105), E.M.L.

S. papillosum Lindb. var. *normale* Warnst., by Loch Kinord, Dinnet (92), U.D.; Llandrindod Wells (43), S.W.; var. *sublaeve* Limpr., Rothiesholm Hill, Stronsay (111), J.S., det. A.Th.

List of Additional V.C. Records for the Years 1944-45.

MOSSES:

Andreaea Rothii W. & M., gritstone stream floor, Torside Clough, Bleaklow (57), J.B.

A. crassinervia Bruch, by Lundie Crags, Sidlaws (90), U.D.

Tetraphis pellucida Hedw., woods near Foesidoes, Radnor Forest (40), E.W.J.

Catharinea undulata var. *minor* W. & M., boulders by Loch Dores (96), U.D.

Oligotrichum hercynicum Lam., Radnor Forest (43), S.W.

Polytrichum nanum var. *longisetum* Hampe, Bradgate Park, Leicester (V.C. 55.), F.A.S.

P. urnigerum L., below Corrig-na-binnia (I.8), A. W. Stelfox per J.S.T.

P. gracile Dicks., Plockton, near Kyle (105), E.M.L. ; Pont Eunant, Lake Vyrnwy (47), E.W.J.

P. commune var. *minus* Weis, Rossie-moor, near Brechin (90), U.D.

Diphyscium foliosum Mohr, Harley Dingle, Radnor Forest (43), E.W.J. ; var. *acutifolium* Lindb., river gorge, Canness, Glen Isla (90), U.D.

Archidium alternifolium Schp., Achnashellach (105), U.D. ; near Mochdre Newtown (47), E.W.J.

Pleuridium axillare Lindb., wet field, Ewenny (41), F.A.S.

Ditrichum tenuifolium Lindb., cultivated fields near Foesidoes, Radnor Forest (43), sandy woodland ride, near Newland's Corner (17), E.W.J. ; Boar's Hill, near Oxford (22), J.P.M.B.

D. homomallum Hampe, stony bank, Cwm Gerwyn, Radnor Forest (43), E.W.J.

D. vaginans Hampe, Isle of Rhum (104), W.A.C. & R.B.C.

Seligeria Doniana C.M., on limestone pebbles in woods near river, Evenlode, East End, (23), E.W.J. and J.P.M.B.

S. pusilla B. & S., Radnor Forest (43), S.W. ; on limestone outcrops in woods near river Evenlode, East End (23), E.W.J. and J.P.M.B.

S. recurvata B. & S., moist shady rocks, Harley Dingle, Radnor Forest (43), E.W.J.

Brachyodus trichodes Fuernr., dry gully, Cwm Gerwyn, Radnor Forest (43), E.W.J.

Rhabdowesia crenulata Jameson, Ben Mohr, S. Uist (110), W.A.C. and R.B.C. ; Pen-y-Ffridd, Sarn near Ysppyty Ifan (50), A.Wi.

Cynodontium Jenneri Stirt., Isle of Rhum (104), W.A.C. and R.B.C.

Dichodontium pellucidum var. *compactum* Schp., Ardlui (99), E.M.L.

Dicranella heteromalla var. *interrupta* B. & S., Loch Brandy, Clova (90), U.D.

D. cerviculata Schp., near Beaully (96), U.D.

D. rufescens Schp., near Georgetown, Dumfries (72), A.D.B., Llandrindod Wells (43), S.W. ; Howmore, S. Uist (110), W.A.C. and R.B.C. ; Taynton, Bruerne and Enston (23), E.W.J.

D. varia Schp., near Kilnaboy (I.9), J.S.T. ; Isle of Rhum (104), W.A.C. and R.B.C. ; stream banks, Radnor Forest (43), E.W.J.

D. Schreberi Schp., Hen Wood, Bagley Wood and Tubney Wood (22), Berks., E.W.J. ; var. *elata* Schp., Taren-yr-Esgob Black Mountains (42), R.L.

D. squarrosa Schp., Llandrindod Wells (43), S.W.

Campylopus subulatus Schp., near Fort Augustus (96), U.D.

C. flexuosus Brid., Llandrindod Wells (43), S.W.

C. pyriformis Brid., near L. Inchiquin (I.9), J.S.T.

C. atro-virens, var. *muticus* Milde, near Arts Lake, Wicklow (I.20), A. W. Stelfox, per J.S.T.

C. introflexus Brid., Parkstone, near Poole (9), S.W.

Dicranodontium longirostre B. & S., Parkstone, near Poole (9), S.W.

Dicranium Bonjeani var. *rugifolium* Bosw., sands of Barry (90), U.D.

D. scoparium var. *spadiceum* Boul., Criffel (73), and Potrail Water (77), A.D.B.

D. fuscescens Turn., Merrow Common, Surrey (17), S.W.

D. strictum Schleich., near Newlands Corner, Guildford (17), May, 1943, S.W., on dead wood, Roche Abbey (63), H.F.D.

- D. flagellare* Hedw., on old stump Shere (17), S.W.
- D. montanum* Hedw., wood at Newlands Corner (17), S.W.
- Fissidens bryoides* Hedw., Radnor Forest (43), E.W.J.
- F. crassipes* Wils., Lindrick Common, S. Anston (63), H.F.D.
- F. osmundoides* Hedw., Landequy rocks, New Radnor (43), S.W.
- F. decipiens* De Not., Invergarigzig, Loch Ness (96), U.D. ; Kirkby-on-Bain (54), G.H.A.
- Octodiceras Julianum* Brid., canal between Kilby Bridge and Wistow (55), T.G.T. and F.A.S.
- Grimmia orbicularis* Bruch, Isle of Rhum (104) W.A.C. and R.B.C.
- G. trichophylla* Grev., wall near Roughan Ho., Kilnaboy (I.9), J.S.T.
- G. Stirtoni* Schp., Ithon Valley, Llandrindod Wells (43), S.W.
- Rhacomitrium aciculare* Brid., S. Tipperary and Limerick boundary (I.8), A. W. Stelfox per J.S.T.
- R. protensum* Braun, stone wall above Kennal Vale, Ponsanooth (1), F.R.
- R. fasciculare* Brid., S. Tipperary and Limerick boundary (I.8), A. W. Stelfox per J.S.T.
- R. canescens* Brid., Cong, W. Mayo (I.26), Dr. M. L. Anderson per J.S.T.
- Ptychomitrium polyphyllum* Fuern., Llandrindod Wells (43), S.W.
- Acaulon muticum* C.M., fields near Foesidoes, Radnor Forest (43), E.W.J.
- Phascum Floerkeanum* W. & M., stubble fields between Wantage and Uffington Castle, also on earth on the Ridge Way (22), E.W.J.
- P. curvicolle* Ehrh., Pulpit Hill (24), E.W.J.
- Pottia recta* Mitt., Britwell Hill, Watlington, Oxon. (23), J.M.P.B.
- P. truncatula* Lindb., Radnor Forest (43), S.W.
- P. intermedia* Fuernr., fields, Perranzabuloe (1), F.R.
- P. minutula* Fuernr., Dinas Powis (41), S.W. ; among crazy paving, Hexham (67), E.M.L.

Tortula aloides de Not., New Radnor (43), S.W. ; by bridge over Fergus, Kilnaboy (I.9) J.S.T.

T. cernua Lindb., old quarry floor, Woodend, Shireoaks (56) J.B.

T. angustata Wils., grassy banks, Lamb Bay, Stronsay, (111), J.S.

T. mutica Lindb., by River Roding, Loughton (18), J.H.G.P.

T. intermedia Berk., on a wall, Hadnock, near Monmouth (35) R.L. ; Cong, W. Mayo (I.26), Dr. M. L. Anderson per J.S.T.

T. ruraliformis Dixon, in sandy turf at Frilford (22), J.P.M.B.

Barbula recurvifolia Schp., old quarries, Bagley Wood, and on Wytham Hill (22), E.W.J.

B. rigidula Mitt., rocks, Roughan Ho., Kilnaboy (I.9), J.S.T.

B. cylindrica Schp., near Kilnaboy (I.9), J.S.T.

B. convoluta Hedw., wall by Fergus River (I.9), J.S.T. ; on walls, etc., at Princes Risborough (24) E.W.J.

Weisia rostellata Lindb., Whitecross Green (23), very rare, E.W.J.

W. tenuis C.M., in old quarry, Wytham (34), E.W.J.

Trichostomum mutabile var. *littorale* Dixon, Ardlui, L. Lomond (99), E.M.L. ; var. *cophocarpum* Schp., Lady Park Wood, Wye Valley (35), E.W.J.

Encalypta vulgaris Hedw., top of wall, Fergus River (I.9), J.S.T.

Zygodon viridissimus var. *rupestris* Hartm., on a wall, Kilnaboy (I.9), J.S.T.

Ulota Drummondii Brid., Isle of Rhum (104), W.A.C. and R.B.C.

U. Bruchii Hornsch., Llandrindod Wells (43), S.W.

U. crispa Brid., Llandrindod Wells (43), S.W. ; Hobbs Hill, Princes Risborough (24), E.W.J. ; var. *crispula* Hamm., on pollard willow, a single cushion only (22), E.W.J.

U. phyllantha Brid., on willow tree, Wisley Lake (17), S.W. ; Llandrindod Wells (43), S.W.

Orthotrichum anomalum Hedw., Fahan, W. Inishowen (I.34), A.M.I.

O. stramineum Hornsch., on *Sorbus Aucuparia* stems, Kerry Hill (47), E.W.J. ; Loch Carron (105), U.D.

Orthotrichum pulchellum Smith, on elder, near Great Kimble, local and rare (24), E.W.J.

O. diaphanum Schrad., on elder near Foesidoes, Radnor Forest (43), E.W.J.

Ephemerum serratum Hampe, woodland rides, near Reddings Lodge, Staunton (35), E.W.J.

E. sessile Rabenh., Whitecross Green, very rare (23), E.W.J.

Physcomitrella patens, B. & S., Colt Crag Reservoir, near Ridsdale (62), Dr. K. B. Blackburn; river bank, Ewenny (41), F.A.S.

Phycomitrium pyriforme Brid., boggy alder coppice, near Monmouth (35), R.L.

Funaria ericetorum Dixon, Clyne Common (41), A. E. Wade.

Aulacomnium androgynum Schwaeg., woods near Foesidoes, Radnor Forest (43), E.W.J.

Philonotis fontana var. *adpressa* (Ferg.) L. & M., Connor Hill, near Dingle (I.2), Miss Fagan per J.S.T.

P. caespitosa Wils., in trickling water on hillside, Feede (I.31), J.S.T.

P. calcarea Schp., Teren-yr-Esgob, near Llanthony (35), R.L.

Orthodontium gracile var. *heterocarpum* Watson, on dead wood, Epping Forest (18), J.H.G.P.

Webera annotina Schwaeg., Isle of Rhum (104), W.A.C. and R.B.C.; var. *erecta* Correns, Canness, Glen Isla (90), U.D.

W. proligera Bryhn, in Harley Dingle and Cwm Gerwyn, also in fields near Foesidoes (43), E.W.J.

W. calcarea Warnst., Cornamona, Galway (I.16), K.C.H.

W. Tozeri Schp., roadside bank, Llanthewy Fach (35), A. E. Wade.

Bryum pendulum Schp., rocks above Roughan Ho., Kilnaboy (I.9), J.S.T.

B. inclinatum Bland., The Glen, Peebles (78), A.B.J.

B. pallens var. *speciosum* Schp., Freshfield (59), det. H. N. Dixon, H.F.D.

B. capillare var. *elegans* Braithw., stone hedge, Lambourne (1), F.R.

B. atropurpureum W. & M., Ravensdale, C. Louth (I.31), J.S.T.

B. roseum Schreb., Grove, Roughan Ho., Kilnaboy (I.9), J.S.T.; Glenmacnass, Co. Wicklow (I.20), F. Winder per J.S.T.

Mnium affine var. *elatum* B. & S., Restenneth Bog, Forfar (90), U.D.

Mn. cuspidatum Hedw., Stanner Rocks, frequent (43), E.W.J.

Mn. undulatum L., Cong, W. Mayo (I.26), Dr. M. L. Anderson per J.S.T.

Mn. stellare Reich., Chinnor Hill (23), E.W.J.

Neckera crispa var. *falcata* Boul., rocks near Lough Bunny (I.9), J.S.T.

Porotrichum alopecurum Mitt. stream, Coigart, Cromarty (105), E.W.J.; Ashford Demesne, Cong (I.16), K.C.H.

Myurella apiculata B. & S., Caenlochan, Glen Isla (90), U.D.

Thuidium hystricosum Mitt., near West Deans, Wilts. (8), J.H.G.P.

T. delicatulum Mitt., Lochan nam Brega, near Invermoriston (96), U.D.; near Lundie Craigs, Sidlaws (90), U.D.

T. Philiberti Limpr., old limestone quarry, Wytham (22), E.W.J.

Climacium dendroides W. & M., Trelleck (35), July, 1943, R.L.; near Kilnaboy (I.9), J.S.T.

Orthothecium intricatum B. & S., shady limestone, Lady Park Wood, Staunton (35), E.W.J.

Brachythecium glareosum B. & S., limestone rocks between Staunton and the Wye (35), E.W.J.

B. salebrosum B. & S., tree stump, Beauchief, Sheffield, (63), J.B.

B. velutinum B. & S., Isle of Rhum (104), W.A.C. and R.B.C.

B. caespitosum Dixon, by River Monnow, near St. Maughams (35), E.W.J.

Eurhynchium piliferum B. & S., Llandrindod Wells (43), S.W.

E. crassinervium B. & S., Carrick Mines (I.21), F. Winder per J.S.T.

E. Swartzii Hobk., near Roughan Ho., Kilnaboy (I.9), also var. *rigidum* Boul., Kilnaboy (I.9), J.S.T.; Den of Fullerton, near Montrose (90), U.D.

- E. curvisetum* Husn., by a stream, Marcham (22), E.W.J.
- E. tenellum* Milde, on a wall (I.9), June, 1944, J.S.T. ; rocks on banks of River Edw, near Ruhlen (43), E.W.J.
- E. myosuroides* Schp., S. Tipperary and Limerick boundary (I.8), A. W. Stelfox per J.S.T.
- E. myurum* Dixon, near Beaulieu Farm, Staunton (35), E.W.J.
- E. striatulum* B. & S., Blackhead (I.9), J.S.T.
- E. rusciforme* var. *alopecuroides* Brid., stream on Skiddaw (70), F.A.S.
- E. murale* Milde, by Lough Inchiquin (I.9), J.S.T.
- Plagiothecium depressum* Dixon, on limestone, Wytham (22), and in woods near the Evenlode at East End (23), E.W.J.
- P. denticulatum* var. *aptychus* Spruce, plantations Llechwdd du, Llanwddyn (47), E.W.J. ; (2), F.R.
- P. silvaticum* B. & S., S. Tipperary and Limerick boundary (I.8), A. W. Stelfox per J.S.T.
- Amblystegium confervoides* B. & S., on stones in woods by the Evenlode, East End (23), E.W.J. and J.P.M.B.
- A. Juratzkanum* Schp., by High Pool, Clyne (41), A. E. Wade.
- A. varium* Lindb., on limestone by streamlet, Marcham (22), E.W.J.
- A. filicinum* var. *Whiteheadii* Wheldon, St. Mellons, Mon. (35), A. E. Wade ; var. *trichodes* Brid., Isle of Rhum (104), W.A.C. and R.B.C.
- Hypnum riparium* L., by the Monnow, near St. Maughams (35), E.W.J. ; var. *longifolium* Schp., Ffynnon Shot, St. Mellons (35), A. E. Wade.
- H. elodes* Spruce, bog near L. Bunny, Clare (I.9), J.S.T.
- H. aduncum* Hedw. non L., bog by L. Bunny (I.9), J.S.T. ; var. *paternum* Sanio, moat at Caerphilly Castle (41), A. E. Wade.
- H. Sendtneri* Schp., Irby (54), 1910, G.H.A. ; St. David's Pembroke (45), S.W.
- H. Wilsoni* Schp., bog near L. Bunny, Co. Clare (I.9), J.S.T.
- H. lycopodioides* Schwaeg., bog by L. Bunny (I.9), J.S.T. ; swamp near sea, Rothiesholm, Stronsay (111), J.S.

Hypnum fluitans L., Llandrindod Wells (43), S.W. ; var. *Jeanbernati* Ren., floating in peaty pool at 2,800 ft., Canness, Glen Isla (90), U.D.

H. uncinatum var. *plumulosum* Schp., Glen Phee, Clova (90), U.D.

H. revolvens Swartz, bog near L. Bunny (I.9), J.S.T. ; small bog near Great Haseley (23), J.P.M.B.

H. commutatum Hedw., bogs, Partry, Co. Mayo (I.26), K.C.H.

H. falcatum Brid., bogs, Partry, Co. Mayo (I.26), K.C.H.

H. cupressiforme L. var. *minus* Wils., on birch, Morrone, Braemar (92), U.D. ; var. *elatum* B. & S., Roche Abbey (63), Jan., 1944, H.F.D. ; Wytham Hill (22), and Fontmell Woods (9), E.W.J.

H. imponens Hedw., Potrail Water (77), A.D.B.

H. Patientiae Lindb., Ravensdale, Co. Louth (I.31), Dr. M. L. Anderson per J.S.T. ; Bagley Wood (22), E.W.J.

H. Bambergi Schp., Caenlochan, Glen Isla, alt. 2,800 ft. (90), U.D.

H. molluscum Hedw., between Purley and Thorneholme, Nelson (59), A.Tu. ; var. *condensatum* Schp., near Loch Esk, Clova (90), U.D. ; var. *robustum* Boul., Isle of Rhum (104), W.A.C. and R.B.C.

H. scorpioides L., bog near L. Bunny (I.9), J.S.T.

H. stramineum Dicks., by fresh water loch, S. Uist, Prof. Pearsall per R.B.C. ; Llandrindod Wells (43), S.W.

H. trifarium W. & M., Lochan nam Brega, near Invermoriston (96), U.D.

H. giganteum Schp., bog by L. Bunny (I.9), J.S.T.

H. cuspidatum L., Cong, W. Mayo (I. 26), Dr. M. L. Anderson per J.S.T.

Hylocomium umbratum B. & S., woods, near Fort Augustus (96), U.D.

H. brevirostre B. & S., rocks, Roughan Ho., Kilnaboy, (I.9), J.S.T.

Corrections in last Report (1940-43), p. 217.

Delete, "*H. Bambergeri* Schp., Isle of Scalpay (104), Aug., 1935." The origin of the material is in doubt and confirmation required, J.B.D.

Under *H. molluscum* var. *fastigiatum*, delete "and near Loch Esk, Clova (90), May, 1940, U.D."

HEPATICS.

List of Additional V.C. Records since the Issue of the Report for 1940-43.

Riccia glauca L., Staunton, near Monmouth (35), Sept., 1944, E.W.J. ; Arbirlot, near Arbroath (90), Sept., 1945, U.D., teste J.B.D. ; var. *subinermis* (Lindb.) Warnst., near Appleton (22), Aug.-Sept., 1945, E.W.J.

R. sorocarpa Bisch., Staunton, near Monmouth (35), Sept., 1944, E.W.J.

R. Huebeneriana Lindenb., dried floor of Colt Crag reservoir (67), Sept., 1945, K. B. Blackburn.

Ricciocarpus natans (L.) Corda, canal backwater, W. Drayton (21), Aug., 1943, H. Banks, com. et det. C. P. Castell.

Reboulia hemisphaerica (L.) Raddi, Arborfield (22), 1945, T.M.H.

Conocephalum conicum (L.) Dum., Enfield (21), Aug., 1945, J.P.

Marchantia polymorpha L. (43), 1945, Mrs. Sandwith ; Loch Morlich, near Aviemore (96), K.C.H.

Aneura pinguis (L.) Dum., Crig Bridge, Chigwell Row (18), Aug., 1945, J.P.

Metzgeria pubescens (Schrank) Raddi, Staunton, near Monmouth (35), 1942, E.W.J.

Moenckia Flotowiana (Ness) Schniffn., Ogden Clough, Halifax (63), 1945, H. Walsh, teste F.E.M.

Pellia epiphylla var. *undulata* Nees, Rossie Moor, near Brechin (90), July, 1939, U.D. teste F.E.M.

P. Fabbroniana var. *lorea* Nees, Via Gellia (57), 1944, A.D.B. teste F.E.M. ; High Scawdel, Borrowdale (70), A.D.B., teste F.E.M.

Fossombronia pusilla (L.) Dum., Blackwater Wood and Noke Wood (23), 1945, E.W.J. ; near Canterbury (15), Aug., 1945, J.P.

F. Wondraczeki (Corda) Dum., Whitecross Wood, near Studley (23), April, 1945, E.W.J. ; Chepstow Park (35), 1945, E.W.J. ; Little Whichope (44), Sept., 1945, K. B. Blackburn ; Blean Woods, near Canterbury (15), Aug., 1945, J.P.

F. Dumortieri (Hüb. & Genth.) Lindb., Pickling Yard Plantation, Mortimer (12), 1945, A.D.B. ; Kingsmere, Wokingham (22), T.M.H. teste A.D.B.

Gymnomitrium alpinum (Gottsche) Schffn., Inchgrundle, Glen Esk (90), 1945, U.D., teste J.B.D.

Marsupella emarginata (Ehrh.) Dum., (43), 1945, Mrs. Sandwith.

Alicularia scalaris var. *distans* Carr., Langstrath (70), May, 1945, A.D.B., teste P.W.R.

A. Geoscyphus De Not., near "Three Firs," Mortimer (22), A.D.B.

Eucalyx hyalinus (Lyell) Breidl., Fence Wood, Cold Ash (22), Aug., 1945, A.D.B.

Aplozia crenulata var. *inundata* (Schiffn.) Macv., Blean Wood, near Canterbury (15), Aug., 1945, J.P.

A. sphaerocarpa (Hook.) Dum., Olchon Valley, alt. 1,100 ft. (36), Aug., 1944, E.W.J.

A. riparia (Tayl.) Dum., Taynton (23), Aug., 1945, E.W.J.

A. riparia f. *potomophila* Bern., above Glaslyn, Snowdon, alt. 2,500-3,000 ft., (49), April, 1945, A.D.B.

Lophozia turbinata (Raddi) Steph., Monks Risborough, etc. (24), March, 1945, E.W.J.

L. Mülleri (Nees) Dum., (59), 1945, W. G. Travis.

L. bantriensis (Hook.) Steph., Taren-yr-Ergob, near Llanthony alt. c. 1,400 ft. (35), June, 1944, R. Lewis, det. F.E.M.

L. ventricosa (Dicks.) Dum., Chalfont St. Peter (24), K.C.H.

L. bicrenata (Schmid.) Dum., near Gainsborough (54), Sept., 1945, E.W.J.

L. excisa (Dicks.) Dum., top of Watling Hill (23), 1945, E.W.J.

Sphenolobus exsectus (Schmid.) Steph., High Rock, Bridgnorth (40), Oct., 1942, E.W.J. ; Naddle Forest (69), 1878 and

1882, G. Stabler ; Corrie Arran (100), April, 1943, E.W.J. ; Llanthony, Black Mountain (35), March, 1943, E.W.J.

S. exsectiformis (Breidl.) Steph., Pickling Yard Plantation Mortimer (12), April, 1945, A.D.B.

Plagiochila asplenioides (L.) Dum., Tubney, Wytham and Bagley Woods (22), June, 1945, E.W.J. ; var. *major* Nees, Bagley and Wytham (22), 1945, E.W.J. ; Looe (2), Aug., 1945, W.R.S. ; var. *subintegerrima* Schiffn., Fence Wood, Cold Ash (22), Aug., 1945, A.D.B. ; near Looe (2), Aug., 1945, W.R. and M. E. E. Sherrin, det. A.D.B. ; near Selborne (12), Dec., 1945, L.B.C.T., det. A.D.B.

P. spinulosa (Dicks.) Dum., Harley Dingle, Radnor Forest (43), Oct., 1945, E.W.J.

Lophocolea alata Mitt. ex Larter, High Wood, Burgfield (22), Aug., 1945, A.D.B. ; Chig Bridge, Chigwell Row (18), Aug., 1945, J.P.

Chiloscyphus polyanthus (L.) Corda, Bagley Wood (22), May, 1945, E.W.J. ; var. *fragilis* (Roth.) K. Müll., Taylor Gill Force (70), Aug., 1944, A.D.B.

Cephalozia bicuspidata forma grandiflora Spruce, Stonethwaite, Borrowdale (70), April, 1944, A.D.B., conf. F.E.M. ; *forma conferta* Hüb., Cil-y-Gofid (41), Oct., 1943, A.D.B., conf. F.E.M.

C. media Lindb., Cothill (22), Oct., 1940, E.W.J. ; The Brand, Woodhouse (55), E.W.J. and F.A.S.

Cephaloziella Hampeana (Nees) Schiffn., Burleigh Wood, near Bladon (23), Aug., 1945, E.W.J. ; above Rhiu Lawr, Radnor Forest (43), Oct., 1945, E.W.J.

C. integerrima (Lindb.) Warnst., Trilford (22), Nov., 1939, E.W.J. det. H.H.K.,

Calypogeia Trichomanis (L.) Corda, Denham Golf Club (24), Nov., 1945, K. C. Harris.

C. Neesiana (Carest & Massal.) K. Müll. (59), 1945, W. J. Travis per J.B.D.

C. arguta Nees & Mont., Fence Wood, Cold Ash (22), Aug., 1945, A.D.B.

Bazzania tricrenata (Wahl.) Pears., Glen Doll, Clova (90), July, 1941, U.D. conf. F.E.M.,

Lepidozia reptans var. *tenera* (Hüb.) Nees, Glen Doll, Clova (90), July, 1941, U.D. conf. F.E.M. ; var. *jublacea* Nees, Stonethwaite (70), April, 1944, A.D.B.

Chandonanthus setiformis var. *nemoides* Kaal., near Loch Lee, Glen Esk (90), May, 1939, U.D., conf. F.E.M.

Ptilidium ciliare (L.) Hampe, Burghfield Common (22), March, 1940, T.M.H. per A.D.B.

P. pulcherrimum (Web.) Hampe, Wytham (22), May, 1945, E.W.J.

Scapania compacta (Roth) Dum., Mortimer Common (12), March, 1946, A.D.B.

S. Degenii K. Müll., by R. Tees, facing Cronkley Scar (66), May, 1939. F.E.M.

S. nemorosa (L.) Dum., (43) Mrs. Sandwith.

S. dentata Dum., Fence Wood, Cold Ash (22), Aug., 1945, A.D.B. ; var. *ambigua* De Not., (98), 1944, A.D.B.

S. undulata var. *aequatiformis* De Not. Coire amt Sneacher (96), July, 1938, E.W.J.

S. curta (Mart.) Dum., Silchester Common (12), March, 1940, T.M.H., det. A.D.B.

Radula complanata (L.) Dum., (43), Mrs. Sandwith.

Microlejeunea ulicina (Tayl.) Evans, Wytham Wood (22), May, 1945, E.W.J.

Anthoceros punctatus L. forma *Stableri* Steph., (59), W. J. Travis per J.B.D.

A. crispulus (Mont.) Douin, Nuneham Courtney (23), Nov., 1945, E.W.J.

A. Husnoti Steph., Mortimer Common (22), 1945, A.D.B.

Lejeunea cavifolia var. *planiuscula* (Lindb.) Buch. emend., near Looe (2), Aug., 1945, W.R.S., det. A.D.B.

RECENT BRYOLOGICAL PUBLICATIONS.

—o—

This list aims primarily to cover the years 1943-1945, but, since the last Report, a considerable number of foreign references of earlier years have become available, and many of these have been included. It has been impossible to achieve anything approaching completeness, partly owing to the fact that many foreign publications are still unobtainable, and partly for reasons of space. In particular, American references have been omitted unless of particular interest to British botanists, as such references may all be found in *The Bryologist*. References to reviews have also been omitted.

It will be seen that a considerable output of bryological literature has been maintained, and this includes several important works. The *Revue Bryologique* has continued to appear, although, owing to the requirements of the German occupying authorities, not under its usual title.

Unfortunately, very few reprints have been received ; authors of bryological papers who are kind enough to send reprints to the bibliographer are of great assistance, and also benefit the Society's library.

The method of citation of papers has been altered slightly in order to save space. An additional reference to Biological Abstracts indicates that a useful summary will be found there.

For assistance in compiling this list I am indebted to several members, and particularly to Dr. Margaret Fulford, my counterpart in the Sullivant Moss Society.

References to bryological journals are abbreviated as follows :—

“ The Bryologist ” to “ Bryol.”

“ Revue Bryologique et Lichénologique ” to “ Rev. Bry.”

“ Mélanges Bryologiques ” to “ Mél. Bry. (Rev. Bry.)”

“ Travaux Bryologiques ” to “ Trav. Bry. (Rev. Bry.)”

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

A. D BANWELL.

MOSSES.

- ANDREWS, A. LE R.—Taxonomic notes, III. Further synonyms of *Hymenostylium curvirostrum*. Bryol. XLVI., 131-135, 1943. (*H. curvirostrum* = *Weisia curvirostre*)
Taxonomic notes, IV. *Sciaromium Lescurii*. Bryol. XLVIII., 100-103, 1945.
- BAEHNI, C.—Sur quelques mousses originales de Dickson. Candollea VIII., 181-189, 1939-1941 (1941).
- BARBLEY, E.—Gemmae of *Funaria hygrometrica*. Illinois Acad. Sci. Trans. XXXIV., 102-104, 1941.
- BARNAHRT, J. H.—Dates of the "Bryologia Europaea." Bryol. XLVII., 97-108, 1944.
- BARROS, G. R. DE.—Notas briológicas. Agronomia Lusitana IV., 87-92, 1942. (Portugese mosses).
Notas Briológicas, II. Ibid., IV., 155-166, 1942.
- BARTRAM, E. B.—Mosses collected by the Hawaiian Bog Survey of 1938. Bernice P. Bishop Mus. Occas. Papers XVI., 321-336, 1942.
Third Archbold Expedition mosses from the Snow Mountains, Netherlands New Guinea. Lloydia V., 245-292, 1942. (1 n. gen., 58 n. spp., 1 n. var., 2 n. combs.).
Additions to the moss flora of Northern Chile. Trav. Bry. I. (Rev. Bry. XIII.), 130-134, 1942.
Burma mosses. Farlowia I. 171-189, 1943.
Additions to the moss flora of Northern Chile. Farlowia I., 191-194, 1943.
Additions to the mosses of Fiji. Bryol. XLVII., 57-61, 1944 (Includes 1 n. sp.).
Hugh Neville Dixon. Bryol. XLVII., 137-144, 1944. (Obituary and list of principal publications).
New and noteworthy Philippine mosses. Farlowia I., 503-510, 1944. (Includes 9 n. spp. and n. names).
Pacific outpost mosses. Bryol. XLVIII., 46-53, 1945. (Includes 4 n. spp.).
A new *Weisia* and a new *Tortula* from South-Western United States. Bryol. XLVIII., 90-92, 1945. (*W. Sweetii* and *T. californica*, n. spp.).
Mosses of the Morobe District, North-East New Guinea. Bryol. XLVIII., 110-126, 1945. (Includes 17 n. spp. and 2 n. vars.).

- BAUER, L.—Untersuchungen zur Entwicklungsgeschichte und Physiologie der Plastiden von Laubmoosen. *Flora (Jena)*. XXXVI., 30-84, 1942.
- BROOM, R.—The origin of the *Cynodonts*. *Ann. Transvaal Mus.* XIX., 279-288, 1938.
- BUCH, H.—Deux mousses critiques de la péninsule ibérique. *Trav. Bry. I.* (Rev. Bryol. XIII.) 45-48, 1942. (*Hypnum lusitanicum* Sch. and *Heterocladium Wulfsbergii* Hagen).
- CASTELL, C. P.—In search of woodland mosses. *Countryside XIII.*, 6-9, 1944.
Some more woodland mosses. *Countryside XIII.*, 31-34, 1945.
- CHEN, P-CH.—Studien über die ostasiatischen Arten der *Pottiaceae*, I. *Hedwigia LXXX.*, 1-76, 1941.
- CONARD, H. S.—*Brotherella Roellii* (R. and C.) Fleischer. *Bryol.* XLVII., 194-195, 1944.
The decurrent leaves of *Didymodon tophaceus*. *Bryol.* XLVIII., 27-28, 1945.
Gyroweisia reflexa in North America. *Bryol.* XLVIII., 27-28, 1945.
- DEMARET, F.—*Dicranella cerviculata* Schpr. f. *saxicola* Card. en Belgique. *Trav. Bry. I.* (Rev. Bry. XIII.) 83-85,
- DIXON, H. N.—Additions to the mosses of North Queensland. *Proc. Roy. Soc. Queensland LIII.*, 23-40, 1941.
Papuan mosses (cont.) *Jour. Bot.* LXXX., 25-35, 1942.
Some new Japanese mosses. *Trav. Bry. (Rev. Bry. XIII.)*, 10-19, 1942. (Includes 22 n. spp.).
War zone mosses. *Bryol.* XLVI, 14-22, 1943. (List of plants from Western Pacific and Malay Archipelago, including 8 n. spp. and 1 n. var.).
Note on *Fissidens japonicus*. *Bryol.* XLVI., 128-131, 1943.
Alpine mosses from New Guinea. *Farlowia I.*, 25-40, 1943.
- DIXON, H. N. and THÉRIOT, I.—Mousses du Congo Belge et du Ruvenzori. *Mél. Bry. (Rev. Bry. XII)*, 67-80, 1941. (Includes 26 n. spp. and 6 n. vars., with critical notes).
- ERNST-SCHWAZENBACH, M.—The sexual dimorphism of the tropical mosses of the genus *Macromitrium*. *Farlowia I.*, 195-198, 1943.
La sexualité et le dimorphisme des spores des mousses. *Trav. Bry. II.* (Rev. Bry. XIV.), 105-113, 1944.
- FRYE, T. C. and FERGUSON, E.—*Pogonatum Liebermanianum*. *Bryol.* XLVI., 141-146, 1943.

- GAUME, R.—*Dicranum fuscescens* en forêt de Fontainebleau (S. et M.). Monde des Plantes XL., 12, 1939.
- GROUT, A. J.—Moss Flora of North America North of Mexico. Vol. II., Pt. IV., 1940.
- Fissidentaceae*. North Amer. Flora XV., 167-202, 1943. (69 spp. of *Fissidens*, with keys ; several n. spp. and vars.).
- Preliminary synopsis of the North American *Macromitriaceae*. Bryol. XLVII., 1-22, 1944. (Includes 1 n. gen., 6 n. spp. and 8 n. vars.).
- Two new species of *Acaulon* from Texas. Bryol. XLVIII., 25-26, 1945.
- A revision of the North American species of *Stereophyllum* and *Pilosium*, with descriptions of some South American species. Bryol. XLVIII., 60-70, 1945.
- GUILLAUMOT, M.—Plantes rares ou nouvelles pour la France du Val d'Isère et de Peisey. Trav. Bry. 2 (Rev. Bry. XIV., 118-119, 1944).
- GYÖRFFY, I.—Ueber Oikologie und Artrecht von *Philonotis Schliephackei* Roell. Trav. Bry. I. (Rev. Bry. XIII.), 96-103, 1942.
- Moosabnormitäten von den West-Beskyden bis zu den Ost-Beskyden. Bot. Közlem XXXVI., 36-44, 1939.
- Moha teratomák a Nagy Alföldröl. Ibid. XXXVI., 81-85, 1939.
- Moos-teratomata aus der Grossen Ungarischen Tiefebene. Ibid. XXXVI., 85-89, 1939.
- HARING, I. M.—Mosses collected by the Robert A. Bartlett Greenland Expedition, 1940. Bryol. XLVI., 88-91, 1943.
- HARRISON, J.—*Andreaea Hartmani* Thed. and *A. blyttii* Schimp., two mosses new to the British Isles, from the Hebrides, with remarks on other Hebridean species of the genus. Jour. Bot. LXXX., 35-38, 1942.
- HEITZ, E.—Die keimende *Funaria*-Spore als physiologisches Versuchsobjekt. Deut. Bot. Gesell. Ber. LX., 17-27, 1942 ; Bi. Abs. XVIII, 22425.
- HILLIER, L.—Notules bryologiques. Trav. Bry. I. (Rev. Bry. XIII.), 63-65, 1942. (On *Syntrichia pagorum* (Milde.) Br. eur. and *Brachythecium Starkii*).
- JENNINGS, O. E.—Range of *Mnium hornum*. Bryol. XLVIII., 159, 1945.

- JENSEN, C. Skandinaviens Bladmossflora. 8vo., pp. 535, Ed. Ejnar Munksgaard, Kobenhaven, 1939. (In Swedish, preface in Danish).
- KAZ, N. J.—Suktessii flory mkhov na severe Siriri v postelednikovoe vremia. Botanicheskii Zhurnal SSSR. XXIX., 171-186, 1944; Bi. Abs. XIX, 12259. (Moss succession in North Siberia during the post glacial period).
- KÜHNEMANN, O.—Catálogo de los musgos argentinos. Lilloa II., 37-183, 1938.
- LANG, W. B.—Mosses in the Virginia caverns. Science XCIV., 414, 1941.
The mosses of Luray Cavern, Virginia. Science XCVIII., 173-174, 1943.
- *LID, J.—Mosbollar. Nytt Magasin for Naturvidenskapene, B. LXXVIII., 1938.
- LITTLE, E. L. J.R.—Later generic homonyms among North American mosses. Bryol. XLVI., 105-125, 1943.
- MEYER, S.—Physiological studies on mosses, III. The influence of the moisture factor on the formation of leafy moss plants. Tenn. Acad. Sci. Jour. XVII., 290-295, 1942.
Physiological studies on mosses, IV. Regeneration in *Physcomitrium turbinatum*. Bot. Gaz. CIV., 128-132, 1942.
- MEYER, S. L. and FORD, C. H.—Influence of the Hydrogen-ion concentration of the substrate on the development of leafy moss plants. Plant. Phys. XVIII., 530-533, 1943.
- MEYLAN, C.—Le *Mnium nivale* Amann. Trav. Bry. I. (Rev. Bry. XIII.), 113-116, 1942.
- PERSSON, H. and SJORS, H.—*Plagiothecium latebricola* (Wils.) Br. et Sch. och *Grimmia elatior* Bruch funna i Stockholmstratken. Svensk. Bot. Tidskr. XXXV., 315-316, 1941.
- PATTERSON, P. M.—Some ecological observations on bryophytes. Bryol. XLVI., 1-13, 1943. (Pectin content, absorption of moisture, respiration and resistance to drought in mosses).
- POTIER de la VARDE, R.—Mousses nouvelles recoltées en afrique-Equatoriale par M. H. Humbert au cours de la mission en 1929. Bull. Soc. Bot. Fr. LXXXVII., 351-363, 1940. (Includes 17 n. spp. and 5 n. vars.).
Tisserantiella P. de la V., genus novum familiae *Pottiacearum*. Bull. Soc. Bot. Fr. LXXXVIII., 469-472, 1941.
Observations sur les *Fissidens* africains de la section *Aloma*. Trav. Bry. I. (Rev. Bry. XIII.), 25-35, 1942. (Includes key).

- Le *Fissidens intralimbatus* Ruthe dans les Basses-Pyrénées. Trav. Bry. II. (Rev. Bry. XIV.), 81-83, 1944.
- REIMERS, H.—Ueber zwei systematisch und geographisch interessante Laubmoose des Mediterrangebietes. Hedwigia LXXVII., 243-257, 1938. (*Plagiothecium argyrophyllum* and *Isopterygium Bottinii*).
- SAINSBURY, G. O. K.—Northern mosses in New Zealand. Trav. Bry. II. (Rev. Bry. XIV.), 30-33, 1944. (Discussion of species common to N.Z. and northern hemisphere).
- SARRASSAT, C.—*Hedwigium imberbere* (Sw.) Bryol. eur. et *Hyocomium flagellare* (Dicks.) Bryol. eur. dans le Massif Central. Leur répartition en France. Trav. Bry. I. (Rev. Bry. XIII.), 104-112, 1942.
- SAYRE, G.—Colorado species of *Grimmia*. Bryol. XLVII., 118-122, 1944. (Includes key to the 27 spp. and var.).
The distribution of *Fontinalis* in a series of moraine ponds. Bryol. XLVIII., 34-36, 1945.
- SCHREIBER, H.—Zur Frage des biologischen Wirkungsmechanismus der Strahlung. Naturwissen XXIX., 669-670, 1941.
- SHARP, A. J.—Some problems in American bryology. Lilloa X., 265-283, 1944. (Includes many reductions to synonymy).
Bryological notes from Mexico, I. Bryol. XLVIII., 37-38, 1945.
- STEERE, W. C.—Pleistocene mosses from Louisiana. Dept. of Conservation, Louisiana Geol. Survey, Geol. Bull. XII., 97-101, 1938.
Pleistocene mosses from the Aftonian interglacial deposits in Iowa. Papers of the Mich Acad. of Sci., Arts and Letters, XXVII., 75-104, 1941 (1942).
Luiserella, a genus of mosses new to North America. Bryol. XLVIII., 83-84, 1945.
- STEHLE, H.—La végétation muscinale des Antilles Françaises et son intérêt dans la valorisation sylvicole. Carib. Forest. IV., 164-182, 1943.
- STÖRMER, P.—*Eurhynchium Zetterstedtii* spec. nov. and *E. striatum* s. str. in Norway. Nytt Magasin for Naturvidenskapene, B. LXXXIII., 1942.
- TARNLUND, C.—Riksmuseets mossherbarier. Deras Tillkomst och Utveckling. Svensk. Bot. Tidskr. XXXV., 57-74, 1941.

- THÉRIOT, I.—Complément au catalogue des mousses de Cuba et revision de plusieurs genres, II. Mem. Soc. Cubana Hist. Nat. XIII., 265-282, 1939. (Includes several n. spp.).
 Musci Hispaniolensis. Trav. Bry. II. (Rev. Bry. XIV.), 7-25, 1944. (Includes 1 n. gen., 14 n. spp. and 2 n. vars., and lists 88 spp. from Haiti and Santo Domingo).
- TOYAMA, R.—Spilicegium muscologiae Asiae Orientalis, 4. Acta Phytotaxonom. et Geobot. VI., 169-178, 1937. (In German, with Japanese summary).
 Spilicegium muscologiae Asiae Orientalis, 5. Ibid. VII., 102-111, 1938.
Pylaisiae japonicae. Ibid. VII, 222-235, 1938.
Ishibaea et *Ectropodon*. Ibid VII., 264-265, 1938. (Japanese text).
- WELCH, W. H.—The systematic position of the genera *Wardia*, *Hydropogon* and *Hydropogonella*. Bryol. XLVI., 25-46, 1943. (Includes 2 n. fams.).
- Von WETTSTEIN, F.—Über einige Beobachtungen und experimentelle Befunde bei Laubmoosen. Ber. Deutsch. bot. Ges. LX., 394-414, 1942. (Polyploidy in mosses).
- Von WETTSTEIN, F. and STRAUB, J.—Experimentelle Untersuchungen zum Artbildungsproblem, III. Weitere Beobachtungen an polyploiden Bryum-Sippen. Zeitschr. Indukt. Abstramm.-n. Verebungsl. LXXX., 271-280, 1942; Bi. Abs. XIX., 4243. (Study of tetraploid *Bryum caespiticium*).
- WICKES, M. L.—Mosses of Labrador. Bryol. XLVI., 91-103, 1943.
- WILLIAMS, B.—The formation of moss peat beneath translucent pebbles in semi-arid regions of the Great Plains. Science XCVII., 441-442, 1943.
- WYNNE, F. E.—Methods of reporting plant distribution data. Chronica Botanica LXXVIII., 426-428, 1943.
 Studies in *Drepanocladus*, I. History, morphology, etc. Bull. Torrey Club LXXI. (3), 1944.
 Studies in *Drepanocladus*, II. Phytogeography. Brittonia V. (2), 1944.
 Studies in *Drepanocladus*, III. Doubtful and excluded names. Bryol. XLVII., 66-78, 1944.
 Studies in *Drepanocladus*, IV. Taxonomy. Bryol. XLVII., 147-189, 1944. (Includes 1 n. var. and 5 n. stati).

Life Story of Mosses. New York Bot. Garden Jour. XLV., 81-87, 1944.

Studies in *Calliergon* and related Genera. Bryol. XLVIII., 131-155, 1945. (Includes detailed descriptions and discussions of all N. American spp., and some reductions to synonymy).

BRYOPHYTES.

ALLEN, C. E.—The Genetics of Bryophytes, II. Bot. Rev. XI., 260-287, 1945; Bi. Abs. XIX., 15219. (Includes discussion of literature since 1935).

ALLORGE, P.—Musciniées des Landes Méridionales. Dax, 1943.

ARMITAGE, E.—A short account of the Moss Exchange Club and the British Bryological Society. Berwick, 1944.

BIMONT, G.—Excursion bryologique à la tourbière de la Cailleuse (forêt de Montmorency, Seine-et-Oise). Trav. Bry. II., (Rev. Bry. XIV.), 114-117, 1944.

BINSTEAD, Rev. C. H.—Mosses of Herefordshire. Hereford, 1940. (A complete county moss flora; includes a list of hepatics).

BIZOT, M.—Contribution à la flore bryologique du Liban. Trav. Bry. I. (Rev. Bry. XIII.), 49-53, 1942.

CARROLL, G.—The use of bryophytic polsters and mats in the study of recent pollen deposition. Amer. Jour. Bot. XXX., 361-366.

CHADEFAUD, M.—Essai sur la valeur morphologique de la capsule sporangiale des bryophytes. Trav. Bry. I. (Rev. Bry. XIII.), 71-82, 1942.

CHEVALIER, A.—Souvenir de jeunesse sur T. Husnot. Trav. Bry. I. (Rev. Bry. XIII.), 1-9, 1942.

CHRISTOPHERSEN, E.—Plants of Tristan da Cunha. Scientific results of the Norwegian Antarctic Expeditions, 1927-1928, et seq. no. XVI., Oslo, 1937.

CLAPHAM, A. R.—The role of bryophytes in the calcareous fens of the Oxford district. Jour. Écol. XXVIII., 71-80, 1940.

CONARD, H. S.—How to know the Mosses. Pp. 166, figs. 363. Mt. Pleasant, Iowa, 1944.

Sullivant Moss Society Foray at Columbus, Ohio, Sept., 1944. Bryol. XLVIII., 42-44, 1945.

- DAVY DE VIRVILLE, A.—Recherche sur le parasitisme chez les muscinées. Rev. gén. Bot. XLIX., 5-34, 1937. *Lophocolea bidentata* (L.) Dum. parasitic on *Anomodon viticulosus* Hook. & Tayl.
- DIXON, H. N.—International bryological nomenclature. Jour. Bot. LXXVII., 176-178, 321, 1939.
- DUCLOS, P. et LAVERGNE, L.—La végétation bryologique de la Châtaigneraie du Cantal. Trav. Bry. II. (Rev. Bry. XIV.), 58-80, 1944.
- GAMS, H.—Kleine Kryptogamenflora von Mitteleuropa, Bd. I. Die Moos und Farnpflanzen (Archegoniaten), pp. 184, figs. 184. Ed. G. Fischer, Jena, 1940.
- GAUME, R.—Sur quelques groupement muscinaux de la forêt de Huelgoat (Finistère). Trav. Bry. II. (Rev. Bry. XIV.), 43-57, 1944.
- HEITZ, E.—Die Polarität keimender Moosporen. Verhandl. Schweiz. Naturforsch. Ges. CXX., 168-170, 1940; Bi. Abs. XIX., 22806.
- HERZOG, TH.—Die Moose der Expedition Ljungner nach Patagonien 1932-1934. Arkiv. Bot. XXIX. (A): XXI, 1-17, 1940.
- HOFLE, K.—Über die Austrocknungsfähigkeit des Protoplasmas. Ber. deutsch. Bot. Ges. LX., 94-107, 1942; Bi. Abs. XIX., 14424. (Resistance of bryophytes to drying).
- HOSSEUS, C.—Observaciones preliminares sobre mis colecciones de líquenes y briofitas sudamericanas. (By title) Proc. Eighth Amer. Sci. Congr. III., 243, 1942.
- JAEGGLI, M.—Bryophytes du Val Piora. Trav. Bry. II., (Rev. Bry. XIV.), 98-104, 1944.
- JANSEN, P. and WACHTER, W. H.—Bryologiese notities, VII, VIII. Bot. Not. L., 365-380, 381-397, 1940.
- JOVET, S. et JOVET, P.—Peuplement bryologique des bois pourrissant ombragés des environs de Samoëns (Haute-Savoie). Trav. Bry. II. (Rev. Bry. XIV.), 120-148, 1944.
- KNOBLOCH, I. W.—New plant records for the Niagara frontier. Torrey XLIV., 59-60, 1945; Bi. Abs. XIX., 11305.
- KOPPE, F.—Das mediterrane Element in der Moosflora Westfalens. Trav. Bry. II. (Rev. Bry. XIV.), 89-97, 1944.
- *KÜHNEMANN, O.—Generos de briofitas de los alrededores de Buenos Aires. Lilloa X., 5-232, 1944. (Descriptions and

illustrations of and keys to all genera of Buenos Aires district, and number of Argentine species of each genus ; in Spanish).

- LATZEL, A.—Die Grottenmoose von Postumia (Italien). *Trav. Bry. I. (Rev. Bry XIII.)*, 66-70, 1942.
- LAZARENKO, A. S.—Nemoral 'nyĭ element brioflory sovetskogo dal'nego vostoka. *Sovetskaia Botanica (Leningrad)*, 1944, 43-45 ; *Bi. Abs. XX.*, 198. (Nemoral elements of the bryoflora of the Soviet Far East).
- LEE, L. W.—Some bryophytes of Greenland. *Bryol. XLVII.*, 114-118, 1944.
- *LID, J.—Bryophytes of Jan Mayen. *Norges Svalbard og Ishavs-Undersøkelser, XLVIII.*, 1941. (In English). Also in *Trav. Bry. I. (Rev. Bry. XIII.)*, 54-62, 1942.
- MACKANESS, F. P.—Bryophytes of the live oak forest. *Proc. Louisiana Acad. Sci. VI.*, 48-49, 1942 ; *Bi. Abs. XVIII.*, 9968.
- MEYLAN, C.—Localités nouvelles pour la flore des muscinées de la Suisse. *Bull. Soc. vaudoise Sc. Nat. LX.*, 261-276, 1939.
- MUGGOCH, H. and WALTON, J.—On the dehiscence of the antheridium and the part played by surface tension in the dispersal of spermatocytes in bryophyta. *Proc. Roy. Soc. Ser. B, CXXX.*, 448-461, 1942.
- OCHSNER, FR.—Studien uber die Epiphytenvegetation eines schweizerisches Obstbaugesbietes. *Trav. Bry. I.*, (Rev. Bry. XIII.), 135-141, 1942.
- OGDEN, E. C.—Display pocket for cryptogams. *Bryol. XLVIII.*, 194-197, 1945.
- PATTERSON, P. M.—Bryophytic succession on boulders in the Mountain Lake area, Giles County, Virginia. *Va. Acad. Sci. I.*, 5-16.
Corticolous bryophyte societies at Mountain Lake, Virginia. *Amer. Mid. Nat. XXIII.*, 421-441.
Osmotic values of bryophytes and problems in permeability. *Amer. Jour. Bot. XXXI.* (8), 1944.
- PERSSON, H.—Några bryologiska fynd och iakttagelser. *Bot. Not. L.*, 262-284, 1940. (Includes English summary).
Bryophytes from Madeira. *Bot. Not.* 1939, 566-590. (Includes several reductions, critical discussions and 1 n. sp.).

- Bryophytes from the bottom of some lakes in North Sweden.
Bot. Not., 1942.
- Existence de mousses au fond des lacs en Suède. Trav. Bry.
II., (Rev. Bry. XIV.), 84-88, 1944.
- *PETERKEN, J. H. G.—The bryophyta of Limpsfield Common.
London Nat. for 1941, 33-36, 1942.
- *The Epping Forest Survey ; mosses and liverworts. London
Nat. XXIV., 49-50, 1944. (Reprint No. 35, 1945).
- REIMERS, H.—Geographisches Verbreitung der Moose im südlichen
Harzvorland (Nordthüringen) mit einem Anhang über die
Verbreitung einiger bemerkenswerter Flechten. Hedwigia
LXXIX., 175-373, 1940.
- RICHARDS, P. W.—Literature on the ecology of bryophytes
published since 1932. Jour. Ecol. XXVIII., 245-248,
1940.
- The taxonomy of British bryophytes as a field for research.
Nature CLV., 100-103, 1945.
- SARTON, G.—Lesquereux (1806-1889). Isis XXXIV., 97-108,
1942.
- SHARP, A. J.—Taxonomical and ecological studies of Eastern
Tennessee bryophytes. Amer. Mid. Nat. XXI., 267-354,
1939.
- Southern Appalachian bryophytes in Europe. Trav. Bry. I.
(Rev. Bry. XIII.), 42-44, 1942.
- *SOWTER, F. A.—The cryptogamic flora of Leicestershire and
Rutland. Bryophytes. Leicester, 1941.
- *Notes on and additions to the bryophytes of Leicestershire and
Rutland. North Western Nat. for March and June, 1945.
- STEERE, W. C.—Instructions to naturalists in the Armed Forces
for botanical field work, No. 3. The collecting of mosses
and liverworts. Pub. for Comp. D., 3651, S.U., Univ.
Michigan.
- Decapitalisation of specific names of bryophytes. Bryol.
XLVIII., 38-41, 1945.
- *STÖRMER, P.—Bryophytes from Franz Joseph Land and Eastern
Svalbard. Norges Svalbard-og Ishavs-Undersökelse,
XLVII., 1940.
- SULLIVANT MOSS SOCIETY, Committee of.—The bryophyte
herbarium. A moss collection : preparation and care.
Bryol. XLVIII., 198-202, 1945.
- Le TESTU, G.—La correspondance de T. Husnot avec R. Lenormand.
Trav. Bry. II. (Rev. Bry. XIV.), 1-6, 1944.

HEPATICS.

- BLEHER, H.—Ueber Membran-verdickungen im Füllgewebe bei *Pellia epiphylla*. Hedwigia LXXIX., 65-71, 1940.
- BOROS, A.—Ueber einige interessante Lebermoose historischen Ungarn. Trav. Bry. I. (Rev. Bry. XIII.), 36-41, 1942.
Nachträge zum Artikel: "Über einige interessante Lebermoose aus Ungarn." Trav. Bry. II. (Rev. Bry. XIV.), 160, 1944.
- BRINKMAN, A.H.—The study of hepatics (liverworts) in Canada. Canad. Field-Nat. XLV., 40-42, 1940.
- CHALAUD, G.—*Pitya Frullaniae* nov. sp., Discomycete parasite de *Frullania dilatata* Dum. Trav. Bry. I. (Rev. Bry. XIII.), 117-120, 1942.
- CHOPRA, R. S.—A census of Indian hepatics. Jour. Indian Bot. Soc. XXII., 237-260, 1943. (List of 628 spp., with keys to genera).
- CLARK, L. and FRYE, T. C.—*Frullania cucullata*. Bryol. XLVIII., 53-56, 1945.
Jubula pennsylvanica. Bryol. XLVIII., 127-130, 1945.
- CLARK, L. and SVIHILA, R. D.—*Porella arborea*. Bryol. XLVII., 36-40, 1944.
Porella Swartziana. Bryol. XLVII., 62-66, 1944.
Frullania braziliensis. Bryol. XLVII., 108-112, 1944.
Frullania inflata. Bryol. XLVII., 196-199, 1944.
Frullania riojaneirensis. Bryol. XLVIII., 56-59, 1945.
Frullania atrata. Bryol. XLVIII., 187-189, 1945.
- DA COSTA, J. G. and PERSSON, H.—Briófitas do Pôrto Santo. Brotéria Ciênc. Nat. X., 29-33, 1941. (40 hepatics).
- ESPINOSA, B.—Hepaticas chilenas fernandecinas y del continent. Bol. Mus. Nacion Chile XVIII., 125-128, 1940.
- De FRIETAS, S.—Inventario das hepáticas contrecidas actualmente em Portugal continental. Brotéria Ciênc. Nat. XIII., 217-229, 1944; Bi. Abs. XIX., 13875. (127 spp. of Portuguese hepatics listed systematically and geographically).
- FRYE, T. C. and CLARKE, L.—Hepaticae of North America. Univ. of Wash., Seattle. Pt. I., 1937; Pt. II., 1943; Pt. III., 1945.

- *FULFORD, M.—Studies on American hepaticae, III. Vegetative reproduction in *Bryopteris fruticulosa*. Bull. Torrey Club LXVIII., 636-639, 1941 ; Trav. Bry. II. (Rev. Bry. XIV.), 26-29, 1944.
- Studies on American hepaticae, IV. A revision of the genus *Symbezzidium*. Lloydia V., 293-304, 1942.
- Development of sporelings in the *Lejeuneaceae*. Bull. Torrey Club LXIX., 627-633, 1942.
- Sporelings and vegetative reproductive structures in *Mastigolejeunea auriculata*. Amer. Jour. Bot. XXIX., 848-850, 1942.
- Sporelings and vegetative reproductive structures in *Archilejeunea*. Bryol. XLV. (4), 1942.
- Vegetative reproduction in *Porella pinnata*. Bryol. XLVII., 78-81, 1944.
- Studies on American hepaticae, V. Two nomenclatural changes in *Ceratolejeunea*. Bull. Torrey Club LXXI, 637, 1944.
- Sporelings and vegetative reproduction in the genus *Ceratolejeunea*. Bull. Torrey Club LXXI., 638-654, 1944.
- GAMS, H.—Beiträge zur Kenntnis der nivalen Lebermoose der Alpen. Trav. Bry. II. (Rev. Bry. XIV.), 34-42, 1944.
- GHOSH, A. K. and CHAKRAVORTY.—On the occurrence of the genus *Pallavicinia* at Dacca, East Bengal. Sci. and Culture VIII., 497, 1943 ; Bi. Abs. XVIII., 14216.
- HAMEED, A.—Notes on the liverworts of Murree Hill. Jour. Bombay Nat. Hist. Soc. XLIII., 190-199, 1942 ; Bi. Abs. XVIII., 3165. (Liverworts of a mountainous wedge of the Outer Himalayas).
- HATTORI, S.—Notulae de hepaticis Japonicis (1). *Taeniolejeunea*. Jour. Jap. Bot. XVII., 457-466, 1941. (In English : includes 2 n. spp.).
- HAUPT, A. W.—Studies in Californian hepaticae, III. *Cryptomitrium tenerum*. Bot. Gaz. CIV, 264-272, 1942.
- Multiple eggs in *Symphyogyna*. Bryol. XLVI., 139-141, 1943.
- Structure and development of *Symphyogyna braziliensis*. Bot. Gaz. CV., 193-201, 1943 ; Bi. Abs. XVIII., 9051.
- HÉE, A.—La végétation hépaticologique d'un coin de vallon vosgien. Trav. Bry. I. (Rev. Bry. XIII.), 121-129, 1942.
- HEITZ, E.—Durch Röntgenstrahlen ausgelöste Mutationen bei *Pellia Neesiana*. Verhandl. Schweiz. Naturforsch. Ges. CXX., 170-171, 1940 ; Bi. Abs. XIX., 20945.

- Lebendbeobachtung der Zellteilung bei *Anthoceros* und *Hymenophyllum*. Ber. deutsch. Bot. Ges. LX., 28-36, 1942. (Correlation of chloroplast and living material in *A. punctatus*).
- HERZOG, TH.—Drei neue *Ceratolejeunea*-Arten aus der Neotropis. Trav. Bry. I. (Rev. Bry. XIII.), 20-24, 1942.
Revision der Lebermoosgattung *Leptolejeunea* Spr. in der Indomalaya. Flora (Jena) XXXV., 377-434, 1942.
Eine neue *Plagiochila*-Art auf der Azoren. Trav. Bry. II. (Rev. Bry. XIV.), 161-162, 1944. (*P. Allorgei* Herz. et Perss., n. sp.).
- HODGSON, E. A.—Review of the New Zealand species of *Schistochila*, with notes on Colenso's species. Trans. Roy. Soc. of N.Z. LXXI., 181-194, 1941. (Includes 2 n. spp. and 1 n. var.).
A review of the New Zealand species of the genus *Chiloscyphus*. Trans. Roy. Soc. of N.Z. LXXIII., 27-52, 1943. (Includes 1 n. sp. and 2n. combs.).
A review of the New Zealand species of *Plagiochila*. Trans. Roy. Soc. of N.Z. LXXIII., 270-296, 1944.
New Zealand hepaticae (liverworts), IV. A review of the New Zealand species of the genus *Radula*. Trans. Roy. Soc. of N.Z. LXXIV., 273-287, 1944; Bi. Abs. XIX., 11233. (Includes 2 n. spp.).
- KNAPP, E.—Mutationsauslösung durch ultraviolette Licht bei dem Lebermoos *Sphaerocarpus donnellii* Aust. Ztschr. f. Induktive Abstam. u. Vererbungslehre LXXIV, 54-69, 1938.
- KÜHNEMANN, O.—Contribución al catálogo briológico argentino, I. Hepaticas. Rev. Est. Cien. Nat. Bs. As. I., 85-97; 155-181, 1937.
Generos de hepáticas nuevos para Argentina. Primera Reun. Sul.-Amer. Bot. II., 211-213, 1940.
- MAHABALE, T. S. and BHATE, P. D.—The structure and life history of *Fimbriaria angusta*. St. Jour. Univ. Bombay XIII., 5-15, 1945; Bi. Abs. XX., 1428.
- MILSOM, F. E.—The mosses, liverworts and lichens of Yorkshire, Hepaticae. Trans. Yorks. Nat. Union, Pt. 37, 1946.
- MIRIMANOFF, A.—Contribution à l'étude des corps oléifères des hépatiques. Schweiz. Bot. Ges. Ber. XLIX., 400-404, 1939.

- MÜLLER, K.—Die Lebermoose (Musci Hepatici) (Rabenhorst's Krypt. Flora, VI.), Ergänzungsband. Lief 1, n. 2, pp. 360. Leipzig, 1939-1940.
- Untersuchungen über die Ölkörpern der Lebermoose. Ber. deutsch. Bot. Ges. LVII., 326-370, 1939.
- Beiträge zur Systematik der Lebermoose. Hedwigia LXXIX., 72-80, 1940.
- Revision der europäischen Arten der Lebermoosgattung *Chiloscyphus* auf Grund des Chromosomensatzes und von Kulturen. Deut. Bot. Ges. Ber. LIX., 428-438, 1942.
- Beiträge zur Systematik der Lebermoose, IV. Studien zur Kenntnis der Gattung *Scapania* Dum. Hedwigia LXXXI., 238-282, 1944; Bi. Abs. XIX., 13877. (Includes 1 n. sp. and 1 n. comb.).
- PANDE, S. K. and MISRA, R. N.—Studies in Indian hepaticae, II. On the epiphyllous liverworts of India and Ceylon, (i). Jour. Indian Bot. Soc. XXII., 159-169, 1943. (Includes several n. spp.).
- RUIZ, O. M.—Estudio de los especies de hepáticas encontradas en Itzacan de Matamoros, Pue. (Mex.) Univ. Nac. Inst. de Biol. An. VIII., 397-403, 1942. (In Spanish).
- SCHIFFNER, V.—Kritische Bemerkungen über die europäischen Lebermoose mit Bezug auf die Exemplare des Exsiccatenwerks; Hepaticae europaeae exsiccatae. Series XXIV., XXV., XXVI., XXVII., 1939, 1940, 1941, 1942.
- SCHREIBER, H.—Zur Frage biologischen Wirkungsmechanismus der Strahlung. Naturwissenschaften XXIX., 669-670, 1941. (Influence of ultra violet light on motility of spermatozoa of *Sphaerocarpus donnellii*).
- SRINIVASAN, K. S.—On some peculiar spores of *Dumortiera hirsuta* Reinw. Bl. et Nees. Current Sci. XIV., 40, 1945.
- STEFUREAC, T. I.—L'*Anastrepta orcadensis* (Hook.) Schiffn. dans les Carpathes roumaines. Trav. Bry. I. (Rev. Bry. XIII.), 86-95, 1942.
- STUDHALTER, R. A.—The foot of *Riella americana* and its relation to nutrition of the sporophyte. Bot. Gaz. CIII., 633-650, 1942.
- THOMPSON, R. H.—The morphology of *Riella affinis*, I. Germination of the spore and development of the thallus. Amer. Jour. Bot. XXVIII., 845-855, 1941.

- TRABUT, L.—Flore des hépatiques de l'Afrique du Nord. *Mél Bry.* (Rev. Bry. XII.), 1-43, 1941. (Descriptions of and keys to all N. African spp. recorded up to 1921).
- VOTH, P. D.—Gemmae-cup production in *Marchantia polymorpha* and its response to calcium deficiency and supply of other nutrients. *Bot. Gaz.* CIII., 310-325, 1941.
Effect of nutrient-solution concentration on the growth of *Marchantia polymorpha*. *Bot. Gaz.* CIV., 591-601, 1943.
Effects of algastatic agents on *Marchantia*. *Bot. Gaz.* CVI., 472-483, 1945; *Bi. Abs.* XIX., 20065.
- WALKER, R. and PENNINGTON, W.—The movement of air pores of *Preissia quadrata* (Scop.) Nees. *New Phyt.* XXXVIII., 62-68, 1939.
- WALTON, J.—How the sperm reaches the archegonium in *Pellia epiphylla*. *Nature* CLII., 51, 1943.
- WOLCOTT, G. B.—Cytological studies on the hepaticae, II. The nucleolus-chromosome in *Pallavicinia Lyellii*. *Amer. Jour. Bot.* XXVI, 41-44, 1939.

SPHAGNA.

- ALLORGE, V.—Au sujet du *Sphagnum molle* Sull. en Espagne et de sa variété *limbatum* Wst. dans les Landes. *Trav. Bry.* II. (Rev. Bry. XIV.), 163-167, 1944.
- OSVALD, H.—*Sphagnum flavicans* (Card.) Warnst. Taxonomy, distribution and ecology. *Acta Phytogeog. Suecica* XIII., 39-49, 1940.
- THOMPSON, A.—Yorkshire Sphagna. *Trans. Yorks. Nat. Union*, Pt. XXXVII., April, 1946.

EXSICCATAE.

- GROUT, A. J.—North American Musci Perfecti, Nos. 426-450. Newfane, Vermont, 1942. (For review, see Flowers, S. *Bryol.* XLVII., 46-47, 1944.)
- HABEEB, H.—Musci Novi Brunsvici, Nos. 1-75, 1945.
- SCHIFFNER, V.—Hepaticae europaeae exsiccatae, Ser. XXIV., XXV., XXVI., XXVII., 1939, 1940, 1941, 1942.

BIOLOGICAL OBSERVATIONS ON BRYOPHYTES.

It has been suggested that it would be a desirable extension of the activities of the British Bryological Society if members were to make organised observations on various aspects of the biology of British mosses and hepatics. Among the subjects in need of investigation which could well be studied co-operatively are the following: fruiting seasons, occurrence of fruiting in species which fruit rarely or locally, sensitiveness of bryophytes to frost and abnormal weather conditions, ecology of certain species, variation especially in critical genera such as *Sphagnum*. On all these subjects valuable observations can be made without special apparatus or equipment and interesting results would undoubtedly be obtained if members were to make observations in their own districts and the results collated.

During the meeting at Appleby in April, 1946, this suggestion was discussed and much interest in it expressed. It was decided to make a start by undertaking an investigation into the season of production of antheridia, archegonia and ripe capsules in selected common mosses and hepatics. Members are asked to send their observations annually to Dr. P. W. Richards at the Botany School, Cambridge, who will present a report on them to the Annual General Meeting. If the scheme proves successful, it can be extended to cover other subjects. Dr. Richards will be glad to receive suggestions as to other subjects which might be investigated. Members who are already making observations or carrying out investigations on the above or any other subjects connected with mosses and liverworts, are invited to write to the Secretary or to Dr. Richards, so that members with similar interests may be put in touch with one another.

Scheme for observations on the season of ripening of antheridia, archegonia and capsules in common bryophytes:—

Members are asked to make observations on the following species:

Amblystegium serpens, *Brachythecium rutabulum*, *Bryum argenteum*, *Catharinea undulata*, *Ceratodon purpureus*, *Dicranella heteromalla*, *Fissidens bryoides*, *Funaria hygrometrica*, *Mnium hornum*, *Tortula muralis*, *Cephalozia bicuspidata*, *Diplophyllum albicans*, *Fegatella (Conocephalum) conica*, *Lophocolea cuspidata*, *L. heterophylla*, *Marchantia polymorpha*, *Pellia epiphylla*.

Observations should be recorded under the following headings :—

1. Extent of observations (single tuft, single spot, whole district, etc.)
2. Locality (including vice-county.)
3. Habitat (wood, hedgebank, wall, etc., shaded or unshaded, limestone or non-limestone, N. S., etc. aspect and any other relevant details.)
4. Height above sea-level.
5. Season of ripening of antheridia (a microscopic examination should be made and the approximate proportion of ripe, unripe and dehisced antheridia on the given date or dates should be stated).
6. Season of ripening of archegonia (give approximate proportion of archegonia ripe after microscopic examination, i.e., archegonia apparently ready for fertilisation, but not containing an embryo or young sporophyte).
7. Season of ripening of capsules (for mosses, ripeness defined as lid fallen, but spores still present in capsule. The approximate proportion of ripe capsules should be given. Persistence of empty capsules of one or more previous seasons should be noted. For hepatics, capsules with elongated seta whether dehisced or not,, should be considered ripe).
8. Other relevant information (e.g., abnormal weather conditions, differences in ripening in different parts of district, at different altitudes or in different habitats).

Negative information, e.g., absence of antheridia, archegonia or capsules at a given place and a given time is of value. Any observations by foreign or colonial members about the behaviour of the species in other countries would be of great interest.

Dr. Richards will be glad to receive reports of members' observations before the end of June each year (beginning June, 1947), and will compile a report on them to be presented at the Annual Meeting). A voucher specimen of each species reported on should accompany the report. A reminder will be sent to members with the notice of the Annual Meeting. The scheme will be continued for three years and longer if it seems desirable.

REVISION OF THE "HANDBOOKS."

At the September meeting in London, the question of the revision of Dixon and Jameson's "Handbook of British Mosses," and MacVicar's "Handbook of British Hepatics," was raised, and a committee was appointed to enquire into the matter, as well as to consider the revision of the Census Catalogues. At the Annual General Meeting at Appleby, Dr. P. W. Richards made a statement on behalf of the committee. The meeting agreed that it was at present impracticable, and probably undesirable, to attempt to prepare a new edition of either "Handbook," but that it might be possible to compile supplements to both, which would include descriptions and figures of species and varieties added to the British flora since the last editions, also corrections and additional information of various kinds. Such supplements could also serve to bring the nomenclature and classification of British bryophytes into harmony with the systems now adopted in America and on the Continent. Dr. Richards agreed to be responsible for collecting information for a supplement to the third edition of Dixon and Jameson's "Handbook." Anyone who knows of errors in the "Handbook," or who can make suggestions as to what might usefully be included in the proposed supplement, is asked to write to Dr. Richards at the Botany School, Cambridge. The preparation of a supplement to MacVicar's "Handbook" is not being undertaken at present.

The revision of the Census Catalogue is referred to elsewhere in this Report.

OBITUARIES.

HUGH NEVILLE DIXON (1861-1944).

Reprinted by kind permission of the Linnean Society from the *Proceedings of the Linnean Society of London*, Session 156, 1943-44, Pt. 3, 21st August, 1945.

With the death of H. N. Dixon the Linnean Society loses a very distinguished Fellow who was one of the ablest of British amateur botanists and was recognised throughout the world as the leading authority on the taxonomy of the mosses, both British and exotic. Those who shared his special interests mourn the loss of a friend and advisor of unlimited kindness and unflinching good judgment.

Hugh Neville Dixon was born at Wickham Bishops, near Witham, Essex, on 20th April, 1861, and was the second son of Robert Walker Dixon and Susan Goodman. The Dixon family had been settled in the neighbourhood for several generations and the grandfather of H. N. Dixon was one of two brothers who founded a firm of farmers and millers well known in Essex. Hugh Neville Dixon was educated at Witham and Southgate; he had a Nonconformist upbringing and was a lover of natural history from his early youth. In 1879 he was admitted a pensioner of Christ's College, Cambridge, and graduated B.A. in 1883, taking honours in the Classical Tripos. He proceeded M.A. in 1886 and also graduated as B.A. and M.A. of London University. During his Cambridge days he had already acquired the interest in mosses which absorbed him for the rest of his life. Though he did not study botany at the university, he came into contact with C. C. Babington, then Professor of Botany, who encouraged his botanical interests. In the Long Vacations Dixon visited the Lake District and elsewhere; his first publication was a note in the *Journal of Botany* for 1884, recording, among other discoveries, the finding of the interesting Mediterranean moss *Tortula Vahliana* at Cherry Hinton, near Cambridge, where it still grows, though not in the exact spot where Dixon first found it.

On leaving Cambridge, Dixon went to Northampton to assist the Rev. Thomas Arnold, who was headmaster of a

school for the deaf and dumb. Dixon remained in Northampton for the rest of his life, succeeding Arnold as headmaster in 1884, and retaining the post till his retirement in 1914. Though his professional work must have taken much time and energy, his other interests were many. Dixon devoted himself to an intensive study of mosses, mastering first the British, later the European, and ultimately the exotic flora.

In 1884, after he had been in Northampton only six months, he published a short list of Northamptonshire mosses. This was the forerunner of an immense series of papers on mosses. All of these show the clarity, fine taxonomic sense and meticulous accuracy characteristic of their author, and in them Dixon described innumerable new species and genera, cleared up many doubtful points and misunderstandings and added much to our knowledge of the bryology of particular regions. His greatest work, by which he will certainly be long remembered, is his "Student's Handbook of British Mosses," of which the first edition appeared in 1896, written with the help of the Rev. H. G. Jameson, who supplied the keys and the figures, basing them on those in his own previously published "Guide to British Mosses." The success of the "Handbook," both in England and America, is sufficient evidence of its merits. It is enough to say here that it combines admirably the advantages of a complete and accurate scientific work with the aim stated in the preface—that there should be nothing in it unintelligible to the ordinary student. At the time the first edition was published the scheme of classification adopted was much superior both in practical utility and naturalness to that in any previous work on British mosses; it was perhaps a pity that the two later editions did not take more account of the development of views on the classification of mosses. Dixon did not disagree with these views, as he accepted them in his work on exotic mosses; his policy in this respect was probably deliberate, as he thought his original scheme the easiest for the beginner to understand. The only other of his works which appeared in book form was his "Studies in the Bryology of New Zealand" (1913-29).

As a systematist Dixon was greatly helped by his wonderful memory, which was both accurate and retentive. All his work was careful and thorough, and though his bent was for "microtaxonomy" rather than for the main outlines of classification, it was very valuable. Dixon was a keen collector and knew the European moss flora as well in the field as in the herbarium. Besides exploring many parts of the British Isles, he made important collections in other

parts of Europe on journeys ranging from Tornean Lapland to Portugal and Sicily, many of them in company with his friend, W. E. Nicholson. Among the most notable additions to the European moss flora made by Dixon and Nicholson, was the discovery of *Distichophyllum carinatum* in the Salzkammergut in 1908, a species new to science of an otherwise tropical genus, and the many interesting discoveries made in 1911 in the Algarve.

The writing of the "Handbook" was not the only way in which Dixon assisted his fellow students of the mosses. He carried on a vast correspondence and was always ready to help a beginner. The humblest and youngest enquirer was answered with the same care and promptitude as a senior colleague. Dixon was a member of the Moss Exchange Club (afterwards the British Bryological Society) from its foundation; he was President in 1923-4 and for many years a referee. Through this Society he did very much to encourage and help the study of British mosses, especially among amateurs.

Dixon became F.L.S., in 1885; was a member of the Council in 1925-30, and Vice-President, 1928-29. His last contribution to our Proceedings, dealing with the alpine mosses of Sumatra, appeared in December, 1944. He was Secretary of the Northamptonshire Naturalists' Society and Field Club from 1886 to 1931. He received a few honours, certainly far fewer than his many years of excellent work deserved, mainly, no doubt, because the group of plants in which he specialised is not supposed to have much popular appeal. His herbarium of British mosses was left to Kew, and his foreign mosses, a collection of priceless value for reference and comparison, to the Department of Botany of the British Museum.

Dixon was far from being a narrow-minded specialist. He was an eminent and active Congregationalist and a Director of the London Missionary Society. He collected flowering plants as well as mosses and was a keen gardener. His other interests included wood and metal turning and county cricket; he also produced small books of poetry, beautifully illustrated. He was a man of enormous physical energy; he climbed Skiddaw on his eightieth birthday, played hockey till he was over fifty, and was an extremely powerful walker.

In manner, Dixon was courteous and quiet. His strong but kindly features, bushy beard and hair which remained black till the end of his life, gave him an appearance of great

dignity. Though a reserved man, he was not difficult to approach. There were few pleasanter companions on a field excursion, and he always delighted in a good talk and a good tale round the fireside after a long day out of doors.

He married in 1890 Mary Pressland, who predeceased him barely five months and they had one son who died young.

P.W.R.

WILLIAM EDWARD NICHOLSON (1866-1945).

Reprinted by kind permission of the Linnean Society from the *Proceedings of the Linnean Society of London*, Session 156, 1943-44, 1945. Pt. 1, 31st December.

The passing of W. E. Nicholson within a year of his life-long friend, H. N. Dixon, deprives the Linnean Society of another of its most eminent bryological fellows. Nicholson's knowledge of the British liverworts was unsurpassed and he added several species to our flora. As an authority on the taxonomy of European mosses and of the Hepaticae, European and exotic, his reputation was world-wide.

W. E. Nicholson was born on March 24th, 1866, at Lewes, Sussex, where nearly all his life was spent. His father, Edward Andrews Nicholson, was a partner in a firm of solicitors in the town; his mother, Emily Louisa Blaker, belonged to an old Sussex family. When only eleven years old he was sent to Marlborough, but in his early teens an attack of pneumonia made it necessary for him to leave and he completed his education under a private tutor. After studying law for a short time in London, he entered his father's firm, in which he remained an active partner until 1930.

From his earliest years Nicholson was passionately interested in natural history and until middle life he was as much an entomologist as a botanist. At the time of his death he had an excellent collection of British Lepidoptera and at one time he had a European collection. About 1890 he became interested in mosses and liverworts and received help and encouragement from William Mitten, the veteran Sussex bryologist, at that time the greatest authority in this country on the exotic mosses. From then onwards Nicholson gave much of his time to the study of bryology, in spite of the calls of his professional work. In the diary which he kept for many years he records how hardly a day passed without

his spending some time on his favourite pursuit, either in the field or in his study. He explored the Sussex countryside minutely and in his admirable account of the hepatics of the county (*Hastings and East Sussex Naturalist*, 1, 243-92, 1911), the large number of species recorded is as much a testimony to Nicholson's thoroughness and keen eyes as to the richness of the flora. His intimate knowledge of the rarer liverworts was largely due to his practice of cultivating imperfectly known species in his greenhouse.

Nicholson had a great love of foreign travel and visited many parts of Europe including Lapland, Crete, Sicily and southern Portugal. Most of these journeys were made in company with his friend Dixon and all of them, especially the visit to the Algarve in 1911, were extraordinarily productive of interesting bryological discoveries.

In the war of 1914-18 Nicholson served with the local volunteers and bore a very heavy burden of professional work; the strain of these years was probably largely responsible for the heart trouble which incapacitated him more and more during the rest of his life. When he was no longer able to continue the long walks and bicycle rides of his younger days, he continued field work with the help of a car and was still active up to the beginning of the present war. In 1940 he left Lewes and spent the last years of his life in Cornwall; he died at Mullion on February 13th, 1945, and is buried in the churchyard of Landewednack.

Nicholson once confessed that he would have liked to have held a botanical appointment and certainly had circumstances led him to become a professional botanist his gifts would have made him sure of success. He had an exceptionally clear and critical mind and the acuteness of his powers of observation was phenomenal, as is witnessed by the number of species of *Cephaloziella* he discovered, many of which have been found by very few others. He wrote a considerable number of short papers, mainly on his discoveries in Britain and abroad. In his later years he was chiefly occupied with exotic hepatics and his chief contribution in this field was his account of the Chinese collections of the Freiherr von Handel-Mazzetti published in 1930 (*Symbolae Sinicae*, 5, 1-35, 1930). His name is commemorated in the moss, *Barbula Nicholsoni* Culmann and in the liverwort *Cephaloziella Nicholsoni* Douin and Schiffn. His valuable herbarium is to be presented to the University of Cambridge.

Nicholson had a great love for all kinds of natural beauty and achieved wonders in his small and not very promising

garden. He was quiet and unassuming in manner and in his later years lived a very retired life. His numerous correspondents will greatly miss his shrewd and illuminating comments and touches of dry humour.

Apart from botany, which engrossed him more and more in later life, Nicholson was keenly interested in archaeology and was for fourteen years secretary of the Sussex Archaeological Society. He did much public service in his native town; he was for many years chairman of the Lewes Gas Company and with a doctor was largely responsible for founding the Victoria Hospital.

He married in 1916 Eleanor Calvert, but had no children.

P.W.R.

Rev. H. G. JAMESON (1852-1939).

The Rev. H. G. Jameson, an Honorary Member of our Society, died at Leatherhead, Surrey, on December 26th, 1939. In him we lose one of those enthusiastic amateurs to whom bryology owes so much. In spite of the calls of an active clerical career, he found time to make a very notable contribution to the study of mosses and liverworts in this country. It is probably for his "Illustrated Guide to British Mosses" (Eastbourne, 1893), which afterwards became incorporated in Dixon and Jameson's "Student's Handbook of British Mosses," that Jameson will be longest remembered.

Hampden Gurney Jameson was born in London in 1852. He was educated at Exeter College, Oxford, took his B.A. degree in 1877 with honours in theology and was ordained the same year. He held curacies successively at St. James, Norlands, St. Peter's-in-Eastgate, Lincoln, and St. Saviour's, Eastbourne. In 1896 the temporary church of which he had charge at Eastbourne was consecrated as the Parish Church of St. Peter and Jameson became the first vicar of the new parish, an office which he held till his retirement in 1917. The rest of his life was spent at Leatherhead. In 1877 he married Amy Agnes Bayly and there were eight children. Mr. and Mrs. Jameson celebrated their diamond wedding in 1937.

Jameson was interested in many scientific subjects, but particularly in botany. In 1891 he published in the Journal of Botany a "Key to the Genera and Species of British Mosses," illustrated by an explanatory plate; by means of

this key the majority of the species could be identified even in the sterile condition. In the introduction the author says : "There is, I believe, no complete key published for British Mosses, and the existing keys, such as Wilson's, are founded almost entirely on distinctions of the fruit, thus leaving the student quite at a loss with regard to such common and easily distinguished mosses as *Thuidium tamariscinum*, the *Hylacomiums*, *Mnium undulatum*, etc., which will probably be among the first he gathers and none of which are likely to be in fruit." Encouraged by the reception of his key, Jameson published in 1893 his "Illustrated Guide to British Mosses," which consisted of the key, revised and partly re-written, together with an introduction, notes on the genera and illustrations of all the species, the last drawn, lithographed and even printed by himself. Three years afterwards the first edition of the "Student's Handbook of British Mosses" was produced, to which Jameson contributed the keys and illustrations (which were substantially the same as those in the "Guide"), and H. N. Dixon the text. Jameson also supplied the keys and illustrations for the two subsequent editions and drew the illustrations for W. E. Nicholson's "Hepatics of Sussex" (Hastings and E. Sussex Naturalist, 1, 1911) and for both editions of MacVicar's "Student's Handbook of British Hepatics" (1912 and 1926).

Jameson's botanical interests were not limited to bryology. He had a good knowledge of the flowering plants and wrote an "Illustrated Guide to the Trees and Flowers of England and Wales" (London, 1909), an excellent book of which there were three editions. He was elected an Honorary Member of the B.B.S. in 1927. His herbarium and the originals of his beautiful drawings are preserved in the British Museum (Natural History).

P.W.R.

WILLIAM HOLMES BURRELL, F.L.S. (1865-1945).

Members of the British Bryological Society will have learned with regret of the death on March 30th, 1945, of William Holmes Burrell.

William Holmes Burrell was born in London, and attended St. Mark's College, Chelsea. Later his family moved to Norfolk where he became apprenticed to Mr. Croke, chemist of Holt; from here he transferred to Sheerness and qualified

as a Pharmaceutical Chemist in 1886. He held a post in London for some time, but for twenty years of his professional life he conducted his own business at Sheringham. On retirement he moved to Norwich and devoted much of his time to field Botany. During this period he worked in association with the late W. G. Clarke on the distribution of plants in Norfolk and in the County Flora, which was published in 1914 under the auspices of the Norfolk Naturalists' Society, the Sections of Physiography and Plant Distribution and on the Mosses and Liverworts were contributed by him. Whilst in Norfolk, the spread of *Azolla* interested him and he published observations on this subject.

According to his own statement his interest in Bryology dates back to a request from E. M. Holmes of the Museum of the Pharmaceutical Society for some *Sphaerocarpus* which was known to occur in turnip fields in Norfolk and which Mr. Burrell successfully located. He soon acquired a considerable knowledge of Bryophyta and whilst still in Norfolk his keen powers of observation enabled him to add to the records of the British Flora *Lophozia Schultzii* var. *laxa* and *Funaria hygrometrica* var. *arctica*. He was one of the early members of the Moss Exchange Club and in 1911 served as a Distributor. On moving to Yorkshire he continued to work actively on Bryology. In 1917 a paper appeared on "The Mosses and Liverworts of an Industrial City,"—a resumé of his Presidential Address to the Leeds Naturalists' Club in 1916, in 1924 a paper on Pennine peat and in 1940 a most interesting record of his observations extending over many years on the distribution of the variety *heterocarpum* Watson of *Orthodontium gracile* Wilson; the type of this species does not mature many capsules in Yorkshire as the developing capsules appear to suffer from frost damage, whilst the variety fruits freely and may possibly be a more vigorous mutant of relatively recent origin which appears to have been spreading rapidly during the last 50 years from Cheshire and the neighbouring Counties where it was first recognised. Mr. Burrell's bryological work shows evidence of exceptionally keen powers of observation and all his observations were made and recorded with meticulous care. Critical cases of identification were frequently referred to him as it was recognised that any opinion he expressed would be soundly based. In spite of his own exact and wide knowledge of Bryophyta, no one was more helpful and patient with beginners than he and many students of bryology probably owe their continued perseverance in the study of this group to the help and encouragement they received from him.

In Leeds, Mr. Burrell served for many years as the Honorary Curator of the Museum of the University Botany Department. In 1924, the late Professor J. H. Priestley invited him to take charge of the William Ingham Herbarium, which comprised some 12,000 specimens of Bryophyta and included many interesting gatherings by bryologists of note and some vouchers for County Records. From this beginning he gradually built up and arranged for the Department, other collections of flowering and cryptogamic plants as the nucleus of the Museum. During this period the University Department gained much from the association with Mr. Burrell, who was always willing to place at its disposal his wide experience in the solution of many varied problems.

As a man, Mr. Burrell will be remembered as an unassuming, kindly and generous personality, with great strength of character and as a staunch friend. The soundness of his judgment and opinions were based perhaps on an essential honesty of outlook and deep sense of service. His great love of plants gave him an unfailing pleasure and interest in life and served to keep him to the end mentally young and unfettered by his years.

L. I. Scott.

Professor PIERRE ALLORGE (1891-1944).

Pierre Allorge, professeur de Cryptogamie au Muséum national d'Histoire naturelle, died in Paris, January, 21st, 1944, after a long and distressing illness. He was born in Paris, April 12th, 1891. He became President of the Société mycologique de France in 1934, of the Société botanique de France in 1937, and of the Société de Geobotanique Française in 1938.

His researches were carried out mainly on freshwater algae, on mosses and on general phytogeography. He took botanical journeys all over France, Central Europe, Scandinavia, Russia, N. Africa and the Iberian Peninsula. Accompanied by his wife, he made 26 excursions to Spain and Portugal. He studied mosses and hepatics from the point of view of the effect of climate on them, and he also grouped them according to their habitats, trees, rocks, etc.

He discovered many new species of bryophytes in the Peninsula, a *Riella* in the salt lakes of Vielle, Castile; Atlantic Island species in the d'Algeciras range of mountains; a relict bryophyte flora in the "sapinières" of Andalusia; and hepatics with tropical affinities in the Basque territory. During his investigations in the Azores, he showed affinities

among the flora to that of Ireland. Helped by Mme. Allorge, he made collections of the bryophytes of the Iberian Peninsula (*Bryotheca iberica*) and of the azores (*Bryophyta azorica*) which were of great value in the systematic study of this group of plants occurring in these regions.

He was a member of the British Bryological Society from 1933 to the time of his death.

FRANCIS ERIC MILSOM, B.Sc. (Lond.) (1886-1945).

Reprinted by kind permission from the *Naturalist*, April-June, 1946.

It is with sincere regret that we record the death of Francis Eric Milsom. This took place on the evening of the 5th December, 1945, at his residence, High Cross, Kirkburton, near Huddersfield, in his sixtieth year. He was born on the 24th May, 1886, at Bowes Park, London. During his scholastic days he displayed great aptitude in his studies, the proficiency of which was evidenced by his successes in the Local Cambridge Examinations in which he took First Class Honours in Theoretical, Organic and Inorganic Chemistry. As an external candidate he obtained the London degree of Bachelor of Science in 1908. He was registered as a Chemist and Druggist, and became a member of the Pharmaceutical Society of Great Britain on the 3rd May, 1911. Prior to his coming to Yorkshire he served as an experimental chemist with two firms of manufacturing chemists in London. He came to Huddersfield in November, 1917, where to the time of his death he was in the employment of the British Dyestuffs Corporation, Ltd., continuing after its merger with the Imperial Chemical Industries, Ltd., a period of twenty-eight years.

Milsom had an excellent knowledge of flowering plants, but his pre-eminent and outstanding study was of the bryophytes, of hepatics in particular, of which he had a most wide knowledge. He became associated with the British Bryological Society in 1923. His abilities soon proved their worth as in 1934 he was made referee for British and European hepatics and continued in that capacity to the date of his death. From 1925 to 1933 he served as distributor of hepatics to the members of the British Bryological Society. He was enthusiastic in his attendance at the excursions of the society and helped in the arrangements for the excursions to Ingletton in 1926 and 1934. At the time of his death he was President

elect of the Society, and he bequeathed to it his collection of bryophytes.

Milsom became a member of the Yorkshire Naturalists' Union in 1918, and very shortly afterwards was elected by the Bryological Committee as recorder for that section as well as its representative on the Executive Committee, and he was holding both offices at the time of his death. His yearly reports were always concise, sound and painstaking. In addition he made valuable contributions to *The Naturalist* concerning Yorkshire bryophytes. He also gave much assistance in the compilation of the supplementary records of the mosses, liverworts and lichens of the county, shortly to be published by the Y.N.U. He was always willing to help fellow students in identification of their specimens and he was never averse to lecture upon his favourite studies to societies in the West Riding. Such lectures were characteristic of the man and his powers of observation and energy. The writer was in constant touch with him in his work in the field, and can speak of his worth as a friend, and of the kindly geniality of his nature. He was greatly interested in choral music and made skilful use of his tenor voice for many years as a member of the Huddersfield Choral Society, whilst prior to coming north he was a member of the famous Alexander Choir, London. He was interred in the graveyard attached to the parish church of Kirkburton on the 10th December, 1945. Amongst the many who attended the funeral being representatives from the departments at the I.C.I. and fellow students. The Y.N.U. was represented by the writer.

W. E. L. W.

Mr. Wattam has given an account of F. E. Milsom's connection with the British Bryological Society, but I wish to say how very much he was appreciated and valued by the members of that society.

At the time of his death he had been for some time the one amongst us who had the greatest knowledge of British Hepatics, and his loss to us on that account is very great. He had an excellent acquaintance with the mosses also. His worth to the society was recognised at our meeting last September by his appointment as Vice-President, so that in two years' time he would have become President.

We had hoped to see him at our next meeting at Easter and we shall greatly miss his genial and kindly presence and his useful help in our discussions and arrangements.

A T.

elect of the Society, and he bequeathed to it his collection of bryophytes.

Milsom became a member of the Yorkshire Naturalists' Union in 1918, and very shortly afterwards was elected by the Bryological Committee as recorder for that section as well as its representative on the Executive Committee, and he was holding both offices at the time of his death. His yearly reports were always concise, sound and painstaking. In addition he made valuable contributions to *The Naturalist* concerning Yorkshire bryophytes. He also gave much assistance in the compilation of the supplementary records of the mosses, liverworts and lichens of the county, shortly to be published by the Y.N.U. He was always willing to help fellow students in identification of their specimens and he was never averse to lecture upon his favourite studies to societies in the West Riding. Such lectures were characteristic of the man and his powers of observation and energy. The writer was in constant touch with him in his work in the field, and can speak of his worth as a friend, and of the kindly geniality of his nature. He was greatly interested in choral music and made skilful use of his tenor voice for many years as a member of the Huddersfield Choral Society, whilst prior to coming north he was a member of the famous Alexander Choir, London. He was interred in the graveyard attached to the parish church of Kirkburton on the 10th December, 1945. Amongst the many who attended the funeral being representatives from the departments at the I.C.I. and fellow students. The Y.N.U. was represented by the writer.

W. E. L. W.

Mr. Wattam has given an account of F. E. Milsom's connection with the British Bryological Society, but I wish to say how very much he was appreciated and valued by the members of that society.

At the time of his death he had been for some time the one amongst us who had the greatest knowledge of British Hepatics, and his loss to us on that account is very great. He had an excellent acquaintance with the mosses also. His worth to the society was recognised at our meeting last September by his appointment as Vice-President, so that in two years' time he would have become President.

We had hoped to see him at our next meeting at Easter and we shall greatly miss his genial and kindly presence and his useful help in our discussions and arrangements.

A T.

List of Books on Mosses and Hepatics in the Library of the British Bryological Society.

Mosses—

- Braithwaite.—British Moss Flora (3 vols.), 1887-1905.
 Cardot and Dismier.—Monographs,—Fontinalis, 1892,
 Philonotis, 1908.
 Dixon.—Handbook of British Mosses, second edition.
 Horrell.—European Sphagnaceae, 1901.
 Renauld.—Harpidium, 1894.
 Schimper.—Synopsis Muscorum Eur., 1876.

Hepatics—

- Boulay.—Hepatics, 1904.
 Cooke.—British Hepatics, 1894 (2 copies).
 Du Mortier.—Hepaticae Europae, 1874.
 Ekart.—Synopsis Jungermanniae, 1832.
 Fry.—The Liverworts, British and Foreign, 1911.
 Gottsche, Lindenburg and Nees.—Synopsis Hepaticarum,
 1844.
 Lett.—Hepatics of the British Isles, 1902 (2 copies).
 Macvicar.—Handbook of British Hepatics, 1912.
 Macvicar.—The Distribution of Hepaticae in Scotland.
 Müller.—Die Lebermoose (2 vols.,) 1906-11.

General—

- Douin.—Des Mousses et des Hepatiques, 1892.
 Stabler.—Mosses and Hepatics of Westmorland.
 B.B.S. Reports, 1923-1936 (in 3 vols.)
 Moss Exchange Club Reports, 1896-1910 (in 1 vol.)
 Moss Exchange Club Reports, 1896-1922 (in 1 vol.)
 Revue Bryologique, 1874-1899 (5 vols.), 1901-1912 (4 vols.)
 Revue Bryologique, New Series, 1928-1931 and 1934-1938.
 The Bryologist, odd copies, unbound.
 Sowter.—The Cryptogamic Flora of Leicestershire and
 Rutland. Bryophytes.

List of Books on Mosses and Hepatics in the Library of the British Bryological Society.

Mosses—

- Braithwaite.—British Moss Flora (3 vols.), 1887-1905.
 Cardot and Dismier.—Monographs,—Fontinalis, 1892,
 Philonotis, 1908.
 Dixon.—Handbook of British Mosses, second edition.
 Horrell.—European Sphagnaceae, 1901.
 Renauld.—Harpidium, 1894.
 Schimper.—Synopsis Muscorum Eur., 1876.

Hepatics—

- Boulay.—Hepatics, 1904.
 Cooke.—British Hepatics, 1894 (2 copies).
 Du Mortier.—Hepaticae Europae, 1874.
 Ekart.—Synopsis Jungermanniae, 1832.
 Fry.—The Liverworts, British and Foreign, 1911.
 Gottsche, Lindenburg and Nees.—Synopsis Hepaticarum,
 1844.
 Lett.—Hepatics of the British Isles, 1902 (2 copies).
 Macvicar.—Handbook of British Hepatics, 1912.
 Macvicar.—The Distribution of Hepaticae in Scotland.
 Müller.—Die Lebermoose (2 vols.,) 1906-11.

General—

- Douin.—Des Mousses et des Hepatiques, 1892.
 Stabler.—Mosses and Hepatics of Westmorland.
 B.B.S. Reports, 1923-1936 (in 3 vols.)
 Moss Exchange Club Reports, 1896-1910 (in 1 vol.)
 Moss Exchange Club Reports, 1896-1922 (in 1 vol.)
 Revue Bryologique, 1874-1899 (5 vols.), 1901-1912 (4 vols.)
 Revue Bryologique, New Series, 1928-1931 and 1934-1938.
 The Bryologist, odd copies, unbound.
 Sowter.—The Cryptogamic Flora of Leicestershire and
 Rutland. Bryophytes.