# BOTANICAL SOCIETY of the BRITISH ISLES

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Floreat Flora

# YEAR BOOK

1952

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# CONTENTS

							PAGE
OFFICERS, COUNCIL AND COMMIT	TEES		•••	•••		•••	5
Editorial		• • •	•••	•••	•••		7
LIST OF MEMBERS AND SUBSCRIB	ers to	30тн	APRIL	1952		•••	8
Annual General Meeting, 3rd	APRIL	1952		,,,		•••	23
REPORT OF THE COUNCIL FOR 195	1	•••		•••	•••	• • •	24
Assistant Secretary's Report	ror 19	951 <sub>,</sub>					30
Terms of Reference of Commu	<b>TTEE</b> S	•••		•••			31
Field Meetings, 1950				•••		•••	32
Field Meetings, 1951	•••		•••		'%	•••	37
EXHIBITION AND LECTURE MEETI	NGS, 1	951	,,,				55
Notices to Members		•••	.,,				68
Functions of Local Secretaries	AND ]	Record	DERS				74
Panel of Specialists	·••						77
Personalia	··· .		•••				82
News of other Societies .	·			•••	•••		85
Obituary	,				•••		87
Geographical List of Members							88
Distributor's Report for 1951							103

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#### EDITORIAL

I must again apologize for the late appearance of Year Book 1952, for which stress of work at the printer's is partly responsible. Writers of Field Meetings accounts would help very much if they could send in their manuscript earlier, as considerable time is required for checking the nomenclature of Plant Lists. Contributors have been most helpful in correcting their proofs promptly.

Field Meetings accounts for 1950 are here completed, as are also those for 1951, with the exception of the Cliveden Meeting.

The attention of readers is drawn especially to a new scheme for the naming of non-critical plants which is set out on pages 79 to 80. The Geographical List of Members appears once more in this issue. It is impossible on account of the expense to print it every year, but we hope to print it periodically, as it doubtless helps to bring botanists in the same region together. Will members please notify me of any mistakes, which they find in it.

Finally may I send out an encouraging word to any member who is able to contribute to "PERSONALIA", a section which we all turn to with interest to learn of the work of fellow botanists.

My thanks are due, as always, to our printers, Messrs T. Buncle & Co. Ltd., for their help and co-operation.

W. R. P., August 1952.

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(up to and including 30th April 1952)

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Simpson, N. Douglas, M.A., F.L.S., F.R.M.S., Maesbury, 3 Cavendish Road, Bournemouth, Hants.

J Sinker, C. A., 1 Grove Terrace, Highgate Road, London, N.W.5.

Skene, Prof. Macgregor, D.Sc., F.L.S., University, Bristol, 8.

Skimming, Mrs. A., Taplow House, Taplow, Bucks.

Skinner, T. G., 112 Gurney Court Road, St. Albans, Heris.

Slack, A., B.Sc., 195 Wilton Street, Glasgow, N.W.

Sladen, W. J. L., M.B., B.S., Edward Grey Institute, Dept. of Zoological Field Studies, Botanic Garden, Oxford.

Slater, Dan C., 30 Pembroke Road, Sevengaks, Kent.

Slater, F., 20 Mostyn Avenue, Bury, Lancs.

Sledge, W. A., Ph.D., B.Sc., 9 St. Chad's Drive, Headingley, Leeds, 6.

Small, Prof. J., D.Sc., Ph.C., F.L.S., M.R.J.A., F.R.S.E., Dept. of Botany, Queen's University, Belfast.

Small, Mrs L. P. M., 13 Woodfield Crescent, Ealing, London, W.5.

J Smith, A. M. Stuart, West Wood, West Meon, Petersfield, Hants.

Smith, D. C., 175 Headstone Lane, North Harrow, Middlesex.

Smith, Miss P. M., Osmotherley, Bromsgrove, Worcs.

Smith, R. L., 24 Grand Avenue, Ely, Cardiff. Smith, Prof. Sir W. Wright, D.Sc., M.A., F.R.S., F.L.S., Royal Botanic Garden, Edinburgh, 4.

Smithson, Miss E., M.Sc., Ph.D., 50 Alexandra Park Road, Muswell Hill, London, N.10.

S Smithsonian Institution, the Librarian, Washington 25, D.C., U.S.A.

S Somerset Archaeological and Nat. Hist. Society (Botanical Section), (A. D. Hallam, Representative), Taunton Castle. Taunton, Somerset. Souster, J. E. S., 193 Kew Road, Richmond, Surrey.

S South London Botanical Institute, 323 Norwood Road, London, S.E.24.

S South Staffordshire Naturalists Society (Secretary, Miss K. B. Walker), 97 Allen Road, Wolverhampton, Staffs.

L Southall, A. W., Clifford's Mesne, Newent, Glos.

J Southall, Patrick, Greenhill Farm, Morton Bagot, Studiey, Warwickshire.

S Southampton, University College Library of, Southampton.

S Southport, Botanic Gardens Museum, The Curator, Southport, Lancs. Southwell, Mrs M., 85 Kingsway, Mildenhall, Suffolk.

Sowter, F. A., Ashstead, 9 North Avenue, Leicester.

Spillett, A. W., 5 Temple Close, Bury Green Estate, Cheshunt, Waltham Cross, Herts.

Spooner, H., 21 Musgrave Crescent, Walham Green, London, S.W.6.

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Spreadbury, W. H., 35 Acacia Grove, New Malden, Surrey.
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Starcs, Karlis, M.Nat.Sc., 5870 Sunset Lane, Indianapolis 20, Indiana, U.S.A.
Starr, Miss E. L. G., Willinghurst, Shamley Green, Guildford, Surrey.
Stephens, J. S., M.A., The Quarry, Northleigh, Witney, Oxon.
Stern, Colonel F. C., O.B.E., M.C., F.L.S., Highdown, Goring-by-Sea, Worth-

ing, Sussex.

Steuart, Mrs G. M., Down, Whimple, Exeter, Devon. Stevenson, Miss A. D., Windmill Cottage, Sandhurst Hawkhurst, Kent.

Stevenson, Miss E. H., 28 Foxcombe Road, Weston, Bath, Somerset.

Stewart, Mrs B. H., Hamelin, Marlborough, Wilts.

Le Sueur, Mrs K. H., 23 Rosary Gardens, South Rensington, London, S.W.7. Summerhayes, V. S., B.Sc., c/o Royal Botanic Gardens, Kew, Richmond, Surrey.

Swain, A. M., 253 Crescent Drive, Petts Wood, Kent Swaine, Miss A. K., Pisang Cottage, Nailsea, Bristol.

Swales, G. J., 90 Pierremont Avenue, Broadstairs, Kent.

Swann, Eric L., 282 Wootton Road, King's Lynn, Norfolk.

S Swansea, University College of, Singleton Park, Swansea, Glam. Sworder, Miss R. M., "Polrode," St. Tudy, Bodmin, Cornwall. Sylvester-Bradley, P. C., Bole Hill House, Fulwood. Shefileld, 10.

Tallantire, Miss A. C., B.Sc., 14 Hulme Hall Avenue, Cheadle Hulme, Stock-port, Cheshire.

Tansley, Sir A. G., M.A., F.R.S., F.L.S., Grantchester, Cambridge.

L Taylor, G., D.Sc., British Museum (Nat. History), Cromwell Road, London, S.W.7.

Taylor Peter, c/o Herbarium, Royal Botanic Gardens, Kew, Richmond, Surrey.

Taylor, S. A., 34 Nelson Street, Leicester.

Taylor, Mrs S. E., 9 Linden Road, Bedford.

Temperley, Geo. W., Restharrow, Apperley Road, Stocksfield, Northumberland. Tetley, Miss M. I., High Garth, Heathwaite, Windermere, Westmorland.

Theobald, W. L., School House, Sandford-on-Thames, Oxon.

Thomas, A. S., D.Sc., Goodings Cottage, Woodland St Mary, Newbury, Berks. Thomas, Charles, Arden, 48 Manor Road North, Edgbaston, Birmingbam, 16. Thomas, Miss E. Mary, 3 Bellaria, La Tour de Peilz, Vevey, Switzerland.

Thorold, B. A., Hele, Bradninch, Exeter, Devon.

Tindall, Mrs K. B., West Downs, Winchester, Hants.

Tisdall, J. H. (address unknown).

Townsend, C. C., A.L.S., 8 Upper Bath Street, Cheltenham, Glos.

Travis, W. G., 9 Barton Road, Liverpool 9.

S Tromsö Museum Biblioteket, Tromsö, Norway.

S Tunbridge Wells Municipal Museum, 12 Mount Ephraim, Tunbridge Wells, Kent

Turnbull, Miss E., Riding Cottage, Riding Lane, Hildenborough, Tonbridge, Kent.

Turner, A., 140 Pine Street, Nelson, Lancs.

Turrill, W. B., D.Sc., F.L.S., The Herbarium, Royal Botanic Gardens, Kew, Richmond, Surrey.

Tutin, Prof. T. G., M.A., University College, Lefcester.

Twist, A. F., Chettle House East, Blandford, Dorset,

- S University College of North Wales, Bangor, Caernaryonshire.
- S Uppsala, Kungl, Lantbrukshögskolan, Uppsala, Sweden.

S Utrecht, Botanical Museum and Herbarium, State University, Lange Nieuwstraat 106, Utrecht, Holland.

Valentine, D. H., M.A., Ph.D., F.L.S., Dept. of Botany, University Science Laboratories, South Road, Durham.

Vaughan, John Griffith, B.Sc., 8 Grawen, Brecon Road, Merthyr Tydfil. Glam Vaughan, Mrs. H. R. H., Nantymwyn, Rhandirmwyn, Llandovery, Carmarthenshire.

J Vernon, P. F., Y.H.A. Hostel, The Moorings, 461 Winchester Road, Bassett, Southampton.

Verschoyle, Mrs W., Old Vicarage, Ospringe, Faversham, Kent.

S Victoria, The Public Library of, Melbourne, c/o Truslove and Hanson, 153 Oxford Street, London, W.1.

Vivian, Miss C., 37 Wilton Crescent, London, S.W.1.

Wade, A. E., F.L.S., Dept. of Botany, National Museum of Wales, Cardiff Waldy, Hon. Mrs. H. P., Sonameg, Higher Sea Lane, Charmouth, Bridport, Dorset.

S Wales, National Museum of, Dept. of Botany (Keeper, H. A. Hyde, M.A. F.L.S.), Cardiff, Glam.

Walker, Donald, Botany School, Cambridge.

Walker, Mrs. R. J. B., 38 Walton Street, London, S.W.3.

Walker, R. K., Barrowcliffe, Barrow-on-Soar, Loughborough, Leicestershire. Wallace, E. C., 2 Strathcarn Road, Sutton, Surrey.

Walters, Dr. S. M., Botany School, Cambridge.

Wanstall, P. J., 54 Matlock Road, Brighton 5, Sussex.

Warburg, E. F., M.A., Ph.D., South Hayes, Yarnells Hill, Oxford.

Warburg, Mrs P., South Hayes, Yarnells Hill, Oxford. Ward, B. T., 24 Long Deacon Road, Chingford, London, E.4.

L Warren, W. E., Selborne, Horsell Rise, Horsell, Woking, Surrey,

Warren, Mrs W. E., Selborne, Horsell Rise, Horsell, Woking, Surrey.

S Washington, U.S. Dept. of Agriculture, The Librarian, Washington, 25, D.C., U.S.A.

S Washington, Library of State College of, Pullman, Washington, U.S.A. Waterfield, R., 7 Buckeridge Road, Teignmouth, Devon. Watson, Dr. E. Vernon, 15 Ilkley Road, Caversham Heights, Reading, Berks. Watson, H. G., 2 Greendykes Road, Dundee, Angus. Watt, A. S., Ph.D., Botany School, Downing Street, Cambridge.

L Watt, Mrs. W. Boyd, M.B.O.U., F.Z.S., 39 Christchurch Road, Bournemouth, Hants.

Webb, D. A., M.A., Ph.D., F.L.S., Trinity College, Dublin, Irish Republic. Webster, Miss M. McCallum, c/o Bank of Scotland, Macduff, Banff.

L Wedgwood, Mrs,

S Wedgwood Herbarium, The, Marlborough College, Wilts. Weimarch, Prof. H., Institute of Systematic Botany, Lund, Sweden. Welch, Mrs B., B.Sc., 49 Lichfield Court, Richmond, Surrey. Wells, Mrs E. M., 4 Chellow Terrace, Chellow Dene, Bradford, Yorks. West, Dr. C., O.B.E., "The Cowl House," Holt Wood, Aylesford, Maidstone, Kent.

West, G. E., Ruanwella, Hallymead Road, Chipstead, Coulsdon, Surrey. Westrup, A. W., 259 Hanworth Road, Hounslow, Middlesex.

Wethered, Miss D. M., Woodside, Walton St Mary, Clevedon, Somerset. Whalley, C. A., 17-19 Egerton Terrace, Kensington, London, S.W.3. Wheatley, A. R., B.Sc., A.M.I.C.E., Greenacre, Orchard Way, Esher, Surrey. Whellan, J. A., Entomology Branch, P.O. Box 25, Causeway, Salisbury. Southern Rhodesia.

Whicker, Mrs. G., Flat B, Woodlane House, Woodlane, Falmouth, Cornwall. White, F., B.Sc., 9 Longwall Street, Oxford.

Whitehead, F. N., Dept. of Botany, The University, Sheffield, 10.

Whitehouse, Mrs M., 16 Ranelagh Avenue, Barnes, London, S.W.13.

Whiting, Miss M. M., Rosemary Cottage, Blythburgh, Halesworth, Suffolk.

Wilkinson, J. S., 26 Golder's Rise, Hendon, London, N.W.14.

Wilkinson, Rev. L. G. W., B.D., B.A., Bankdale Lodge, Moffat, Dumfries.

- J Willan, Miss Tessa, 45 Wingfield Road, Whitchurch, Cardiff.Williams, E. G., M.A., F.R.I.G., 10 Glan Aber Park, Hough Green, Chester.Williams, I. A., F.L.S., F.Z.S., West Hall, Kew Gardens, Richmond, Surrey.
- Williams, J. E. Miles, M.A., F.L.S., 14 Park End Road, Gloucester.

  J Williams, L. H., B.Sc., 31 Armour Road, Tilehurst, Reading, Berks.
  Williams, Rev. M. L.
  Williams, Dr. R. J., Bryn Adda, Port Dinorwic, Caernaryonshire.
  Williams, Dr. W. B., 59 Station Road, Portslade, Brighton, Sussex.
  Williams, Dr. W. T., Botany Department, University College, Southampton.
- J Wilson, Miss B. A., 3 Kingsway, Ewell, Epsom, Surrey.
  Wood, Miss A. F., Waysmeet, Cores End, Bourne End, Bucks,
  Wood, C. A., 8 Western Ave., Halfway, Minster, Sheerness, Kent.
  Woodhead, J. E., B.Sc., F.I.C., Ph.C., 325 Kennington Road, London, S.E.11.
  Woolman, J. F., F.L.S., Cardah, Olton Road, Shirley, Birmingham,
  Wooster, K. R., The Hawthorns, Potmans Lane, Lunsford Cross, Bexhill-on-Sea, Sussex.
  - Wright, Mrs. A. G., 4 Seabrook Vale, Horn Street, Shorncliffe, Kent.
- L Wright, Dr. F. R. Elliston, Braunton, Devon. Yeo, P. F., 43 Park Road, Hampton Hill, Hampton, Middlesex. Yeoman, Miss Ruth, The Green, Brompton, Northallerton, Yorks.

Yeoman, Miss Ruth, The Green, Brompton, Northallerton, Yorks. S York Public Library, City of, York. Young, Rev. Canon Andrew, LL.D., Stonegate, Tunbridge Wells, Kent.

Young, B., Magdalen College, Oxford.
Young, Miss B. M., D.Sc. (Hort.), N.D.H., The Glen, Rickmansworth, Herts
Young, Donald P., B.Sc., Ph.D., A.R.I.C., "Green Woods," 3 Essendon Road
Sanderstead, Surrey.

L Young, Miss Gertrude A., 5 Woodlands Terrace, Glasgow, C.3.

# SUMMARY OF THE ABOVE MEMBERSHIP LIST.

Honorary Members				•••	17
Life Members	,	***		17.	20
Ordinary Members	•••		•••	• • • •	557
Junior Members			•••	•••	36
Family Members	• • • •				7
Subscriber Members					92
Total Membership	)				729

Changes of address and any corrections or additions should be notified to the Hon. Assistant Secretary, Mr W. R. Price, 64 Elsworthy Road, London. N.W.3

# ANNUAL GENERAL MEETING, 3rd April 1952

The Annual General Meeting was held in the Rooms of the Linnean Society, Burlington House, Piccadilly, London, on 3rd April 1952, at 7 p.m.

The President was in the Chair and 59 members were present.

The Honorary General Secretary read the Minutes of the last Annual General Meeting, which were approved and signed.

Council's Report:—The Report of Council for the year 1951 had been printed and circulated. Mr. Ash asked what had been the response to the Deed of Covenant Scheme. Mr. Swann said that only 39 deeds had been entered into. The Report was adopted and Mr. Lousley was thanked for his work in drawing it up.

ELECTION OF VICE-PRESIDENT:—Three Vice-Presidents had been elected in 1951 to serve for a term of two years. Council had nominated Professor T. G. Tutin to increase the number to the maximum of four. Prof. Tutin was unanimously elected.

ELECTION OF HONORARY GENERAL SECRETARY, HONORARY TREASURER, HONORARY EDITOR AND HONORARY FIELD SECRETARY:—Council had nominated Mr. J. E. Lousley, Mr. E. L. Swann, Dr. E. F. Warburg, and Dr. J. G. Dony respectively. These were unanimously re-elected. The Chairman expressed the gratitude of all for their labours over the past year.

ELECTION OF MEMBERS OF COUNCIL:—There were four vacancies caused by the retirement of Mr. J. P. M. Brenan, Mr. R. A. Graham, Mr. W. B. Price, and Mr. E. C. Wallace. Eight nominations had been received from members. Ballot papers were distributed and Mr. Ash and Mr. Sandwith were appointed scrutineers. The following were declared elected:—Dr. D. P. Young, Mr. V. S. Summerhayes, Mr. E. B. Bangerter and Dr. S. M. Walters. Their order of seniority for retirement, as decided by lots drawn by the President, is in the sequence given.

Mr. E. B. Bangerter then proposed a vote of thanks to the President for acting as Chairman at meetings throughout the past year, and this was carried with acclamation.

Before the meeting closed, the Honorary General Secretary made various announcements. At the request of the Council he drew members' attention to the advantages to libraries in purchasing our own publications for exchange for those of foreign institutions. We would welcome such arrangements, which would help to make our work better known abroad and make foreign periodicals available to British libraries at far less expense than direct subscriptions. The General Secretary also announced that Mr. R. A. Graham had kindly offered to act for the time being as Referee for those Scottish vice-counties for which there were gaps in the list recently circulated.

# REPORT OF THE COUNCIL FOR 1951

This Report and the audited accounts printed below cover the period January 1st to December 31st, 1951.

MEMBERSHIP. During the year 106 new members joined the Society; of these, 33 (31%) were introduced through the activities of the Advertising Committee. We lost 27 members through death, resignation and the operation of Rule 6 (d), giving a net increase of 79. This may be compared with net increases of 22, 12, and 104 respectively for 1948, 1949, and 1950. The total membership at the end of the year was 681.

FINANCE. The financial position has continued to improve during the year in spite of rising costs generally. Receipts from subscriptions amounted to £641 compared with £590 for 1950, and £492 for 1949, and greater membership is also reflected in increased proceeds of sales of publications.

Expenditure on our journal, Watsonia, has been considerably less than may be expected in an average year, owing to the incidence of dates of publication.

We are very grateful to the Royal Society for an allotment of £250 from the Scientific Publications Grant-in-aid Fund towards the cost of our publications. Of this, £150 had not been actually received by the end of the year and is therefore not shown in the annexed accounts. This grant will enable us to maintain the standard of our periodicals and it has made it possible for us to undertake publication of the papers to be read at the Conference arranged for April 1952.

The stocks of Comital Flora and the British Plant List are now almost exhausted and receipts from the remaining copies will be small. The proceeds of sales in previous years have been accumulated on the Publications Fund, the balance of which is available towards the cost of new editions.

Arrangements have been made whereby members can execute Deeds of Covenant in payment of their subscriptions to enable the Society to augment its income by reclaiming Income Tax. The response so far has been disappointing and it is hoped that more members will assist us, without cost to themselves, by paying their subscriptions under this arrangement.

# DEVELOPMENT AND RULES COMMITTEE. Secretary: Mr. E. Milne-Redhead.

Alterations in the Rules recommended by the Rules Committee were adopted at the Annual General Meeting on April 14th (see Year Book, 1951, p. 25). The Development Committee revised the lists of Local

Secretaries and Panels of Specialists for the Year Book, 1951. As from April 26th the functions of the two previous Committees were combined in a Committee appointed under the title given above.

MEETINGS (formerly FIELD WORK) COMMITTEE. Secretary: Dr. J. G. Dony.

Arrangements were made for botanical films to be shown and papers read during the morning of April 14th, and for a further paper to follow the Annual General Meeting that afternoon. This innovation was greatly appreciated and was attended by 85 members and guests.

On April 26th the Council appointed the Meetings Committee to take over the functions of the former Field Work Committee as it was felt that the old title was misleading in view of the extension of its activities to include indoor meetings.

The published programme of field meetings was completed as arranged. Five meetings lasting more than two days, and two one-day meetings were attended as follows:—Ipswich (42), Monmouth (38), Halling (24), Cliveden (38), Arbroath (18), Reading (23) and Barrow (34)—a total attendance of 216. The number of individual members who attended meetings during the year was 120, which is probably a record.

The Exhibition Meeting was held at the Natural History Museum on October 20th and was attended by 209 members and guests. The exhibits were of exceptional interest and we are grateful to the Trustees and staff of the Museum for the facilities they placed at our disposal.

Arrangements were in hand for a Conference on The Changing Flora of Britain to be held in the Royal Horticultural Society's New Hall, Westminster, on April 4th and 5th, 1952, and this would be followed by an appropriate field meeting on April 6th.

PUBLICATIONS COMMITTEE. Secretary: Mr. H. K. Airy Shaw.

Watsonia, Volume II, Parts I and II, were published in June and November respectively and the whole of the galley-proof of Part III had been received from the printers before the end of the year. The standard of our journal was well maintained under the editorship of Dr. E. F. Warburg and it has been possible to include more illustrations.

The Year Book, 1951, edited by Mr. W. R. Price, was published in August and included full accounts of the plants found on field meetings and of exhibits shown at the 1950 Exhibition Meeting.

A report of the 1950 Conference, edited by Mr. J. E. Lousley, was published in May as a separate book under the title of *The Study of the Distribution of British Plants*. Members were given an opportunity of purchasing this book at half-price and the response, and sales to the public, have been very satisfactory. Arrangements have been made for the papers read at our 1952 Conference to be published similarly.

For the purpose of producing a revised and shortened edition of British Plant List as quickly as possible, a sub-committee was set up in May. The members of this sub-committee are Mr. H. K. Airy Shaw,

Mr. J. E. Dandy and Dr. E. F. Warburg, and work on the project is proceeding.

At a meeting of the Publications Committee on November 12th, Mr. H. K. Airy Shaw tendered his resignation as Secretary which was received with great regret. Dr. J. Heslop-Harrison was appointed in his place and took over the work as at the end of the year.

# CONSERVATION COMMITTEE. Secretary: Mr. J. E. Lousley.

During the year about 40 "threats" to the British flora have been under consideration. These included the spraying of roadsides with chemicals in Gloucestershire and other counties, the proposed use of land at Braunton Burrows by the War Department, the effect of the Warcop A.F.P. Range on the plants of Upper Teesdale, the felling of trees and proposed reafforestation at Stanner Rocks, Radnorshire, and damage to *Orchis simia* in Oxfordshire. The Committee has worked in close collaboration with the Nature Conservancy both in London and Edinburgh, and we are satisfied that our efforts have resulted in some of the threats reported being mitigated or removed.

# MAPS COMMITTEE. Secretary: Prof. A. R. Clapham.

This Committee was set up in 1950 to consider the preparation of distribution maps of British plants. In April a proposal for the preparation of a revised edition of Comital Flora was referred to it by the Council. No meeting has taken place during the year.

# ADVERTISING COMMITTEE. Secretary: Mr. R. A. Graham.

During 1951, 133 circulars have been sent out to individuals likely to be interested in the Society, and 209 to libraries and institutions—a total of 342. Of these, 20 individuals and 13 libraries and institutions have become members or subscribers. In addition the substantial increase in sales of our journal through booksellers and agencies is mainly attributable to the results of advertising. There has also been a satisfactory increase in the number of advertisements obtained for inclusion in our publications from which our receipts for the year increased from £1 15s in 1950 to £20 12s.

#### SALES OF PUBLICATIONS.

These have been again conducted from Oxford by Mr. J. H. Burnett and now form an important part of the Society's revenue. There have been 476 sales during the year resulting in credits of £115 to the Journal Fund and £158 to the Publications Fund.

In November, 18 packages of the stock of old Reports and the *Flora* of Northamptonshire surplus to our immediate requirements, were transported by Mr. G. M. Ash from Oxford to the British Museum (Natural History) where they will be stored for us until required. We are grateful to Dr. George Taylor, Keeper of Botany at the Museum for his kind assistance, and to Professor T. G. B. Osborn, Professor of Botany, Oxford, for continuing to afford us facilities in his Department.

#### EXCHANGE SECTION.

To the 1950/51 Distribution, 9 members contributed 589 sheets of specimens. Mr. E. S. Edees acted as Distributor, and his report was published in the Year Book, 1951. Miss C. W. Muirhead is acting as Distributor for 1951/52 and is now dealing with the plants contributed.

During the year a tablet was prepared and affixed to the portrait of J. G. Baker bequeathed to the Society by his son, and now on loan to the Linnean Society.

The problem of storage of the Society's records, maps, files, and publications to which it is necessary to have frequent access, is causing increasing difficulties in demands on the space available in the officers' homes. Our work would be greatly facilitated by the permanent use of a room where our Committees could meet regularly and where our possessions could be stored. While the Council have no immediate solution in mind, they think members should know that the matter has been under consideration during the year.

The Council would like to express their appreciation of the services of members who have represented the Society at meetings of other organisations and at Public Enquiries during the year.

- C. E. RAVEN, President.
- J. E. Lousley, Hon. General Secretary.

February 9th, 1952.

# ACCOUNTS FOR 1951.

## GENERAL FUND.

GENERAL	FUND.
To Balance from 1950 £116 3 9 ,, Interest for 1950 on Post Office Savings Bank 14 3 4 , Receipts from advertise- ments 20 12 0 , Subscriptions received during the year † 641 9 8	By Notional Interest transferred to Publications Fund £14 7 6  "Hire of Rooms, etc., for Council and Committee Meetings 7 8 9  "Tablet for J. G. Baker's
	portrait 5 0 0
i	"Cheque Book 0 10 0
	,, Lantern Operator's Fee 2 2 0 ,, Expenses re Conservation
	activities 0 17 10 , Year Book, 1951, and post-
	ages thereon 216 0 11 , Duplicating Minutes of
	Meetings 6 1 9
	, Officers' Expenses 10 16 6
	Fire Insurance on publi-
	cations at Oxford and
	portrait 1 2 6
	Telephones 1 0 0
_	, Advertising Campaign
	Expenses 8 12 8
	General Printing and
	Stationery 85 6 8
	, Honorarium to Assistant
	parcelling Publications 1 0 0
	, Expenses re Deed of Cove-
	nant scheme 7 4 6
	,, Postages and Petty Ex-
	penses—
!	Hon. General
	Secretary £14 16 2
	Hon. Editor 3 0 0
	Hon. Treasurer 9 13 10
	Hon. Asst.
	Secretary 10 0 0
	Hon. Distributor 1 5 0
•	Hon. Sec., De-
	velopment Committee 1 6 11
	Committee 1 6 11 40 1 11
	"Balance 384 15 3
£792 8 9	£792 8 9

<sup>†</sup> Subscriptions paid in advance as at December 31, 1951, amounted to £88 4s 0d. (Not audited.)

	101	UR)	NA	L FUND.
To Balance from 1950 ,, Grant from Royal Society ,, Sales of Reports and Reprints		19 0	0	By Printing Watsonia and postages, etc., thereon— Vol. II, Part I (to complete payment) £68 11 6 Vol. II, Part II 138 14 7 Vol. II, Part III (part payment) 45 0 0  , 50 Binding Cases and circulars to members 9 6 3 , Postages on parcels from Oxford 6 18 4 , Balance 217 11 9
	£486	2	 5	£486 2 5
		*	-	
				ONS FUND.
To Balance from 1950  "Interest for year on initial balance at 2½% (per General Fund)  "Sales of Comital Flora and British Plant List  "Sales of Flora of Northants  "Sales of 1948 Conference Report  "Sales of 1950 Conference Report  "B.B.C. Copyright Fee re Flora of Northants	14 24 10	7 8 5 10	6 0 1	By 1950 Conference Report—  Hon. Editor's  Postages £1 3 6  Circulars to  Members £5 15 0  Printing 1900  copies 207 3 0  Carriage of  stock to Oxford 2 10 0   , Postages and Petty Expenses at Oxford 3 0 0  , Balance 530 9 1
FIELD	WOR	K (	CO:	MMITTEE'S FUND.
To Balance from 1950 ,, Profit on Field Meetings		8		By Loss on Exhibition Meeting £2 0 9 , Balance 13 11 8
	£15	12	5	£15 12 5
£41 3s 6d respectively. There year.	e have	e b	eer	devolent Funds remain at £145 12s 0d and no entries on these accounts during the at 31st December 1951.

#### BALANCE SHEET as at 31st December 1951.

£1384 12 11

General Fund				£384	15	3
Journal Fund				217		9
Publications F	und			530	9	1
Field Work	Cor	nmit	tee's			- 1
Fund				13	11	8
Life Members'	Fund			145	12	0
Benevolent Fu	nd			41	3	6
Cheques issued	but	not	yet			
presented				51	9	8
-						

-		2004,					
3	500 National Sa	vings	Cert	ifi-			
9	cates at cost				£400	0	0
1	500 National Sa cates at cost Cash at Bank	,			70	0	7

Deposit with Post Office Savings Bank ... ... 914 12 4

£1384 12 11

Examined and found correct, 25th January 1952.

C. L. COLLENETTE, Hon. Auditor. E. L. SWANN, Hon. Treasurer.

#### ASSISTANT SECRETARY'S REPORT FOR 1951

During 1951, 106 new members joined the Society, this being 23 fewer than in the previous year, but 60 more than in 1949. The following are the monthly totals of new members:—January 23, February 12, March 9, April 10, May 7, June 3, July 10, August 3, September 7, October 12, November 7, December 4. Of the new members 73 were Ordinary Members, 19 Subscriber Members and 14 Junior Members. Losses totalled 27, being two more than last year: 14 resigned; 9 were lost through death; 3 under Rule 6 (d) and one name was transferred. Total Membership at 31st December 1951 was 681, this being 79 more than in the previous December. We deeply regret having to record the deaths of the following:—R. R. Hutchinson, Major W. Van de Weyer, L. W. Wilson, Captain A. J. Maudsley, Miss K. C. Stevens, Dr. E. B. Almquist, Prof. R. J. D. Graham, Dr. G. H. Bates and Mrs. H. Willan.

New Ordinary Members are: -F. W. Adams, F. Ambrose, Mrs. J. Appleyard, W. Atkinson, A. P. Balfour, Miss O. E. Balme, Mrs. M. Benbow, Miss D. Bexon, Miss M. E. Bradshaw, G. M. Brown, Miss M. I. Brown, Miss W. F. Buckle, K. E. Bull, J. E. Carter, J. W. P. Chiddell, Dr. R. E. C. Copithorne, J. H. Corner, Rev. J. G. Culshaw, G. J. Cunnell, D. H. Dalby, H. I. Davies, R. B. Drummond, Mrs. V. H. FitzGerald, Miss H. Franks, Miss H. D. Garside, W. J. Goddard, H. C. F. Gould, W. Balfour Gourlay, Mrs. A. S. Gray, H. E. Green, R. N. G. Haines, Miss M. J. Herbert, Miss G. B. Hilbert, R. E. Hughes, Miss E. M. C. Isherwood, Major J. P. A. Jackson, S. S. Kind, L. Larsen, D. A. J. Little, Dr. J. A. MacDonald, Miss E. M. Male, Mrs. M. E. Mallinson, Dr. A. Melderis, Dr. B. Merriman, A. Morrison, Miss R. J. Murphy, J. S. R. Pankhurst, Mrs. D. Perrins, Dr. R. Lloyd Praeger (Hon. Member), D. A. Reid, E. A. Robinson, N. K. B. Robson, Mrs. K. N. Sayer, Rev. C. E. Shaw, Miss M. S. Shaw, Mrs. A. M. Simmonds, F. W. Simpson, Mrs. A. Skimming, T. G. Skinner, F. Slater, K. Stares, J. S. Stephens, A. M. Swain, P. C. Sylvester-Bradley, Miss A. C. Tallantire, Dr. A. S. Thomas, Mrs. R. J. B. Walker, R. K. Walker, Mrs. G. Whicker, Rev. L. G. W. Wilkinson, C. A. Wood, J. F. Woolman, P. F. Yeo.

New Junior Members are: —Miss D. E. Ashhurst, J. Cadbury, J. F. M. Cannon, K. M. Goodway, Miss R. E. K. Gray, J. L. Hooper, K. J. Hurle, R. A. Lemmon, J. D. Lovis, M. E. K. Mitchell, Miss S. Nelmes, P. R. Norman, J. P. Savidge, P. W. Spragg.

New Subscriber Members are:—Amsterdam Universiteits-Bibliotheek, Birkbeck College Library, Bristol Central Library, Carnegie Museum, Centre National de la Recherche Documentation, Forestry Commission, Graz Institut für Systematische Botanik, Halifax Scientific Society, John Innes Horticultural Institution, Kew Herbarium

Library, Lincolnshire Naturalists' Union, Mercers School, Pavia Botanical Institute, Reykjavik Natturugripasafnid, Science Museum, Somerset Archaeological and Natural History Society, South Staffordshire Naturalists' Society, Tromsö Museum Biblioteket, Utrecht Botanical Museum.

W. R. PRICE.

January 1952.

## TERMS OF REFERENCE OF COMMITTEES

(as approved by the Council, February 9 and April 3, 1952)

# 1. DEVELOPMENT AND RULES COMMITTEE.

To undertake periodic reviews of the Panels of Specialists and of the List of Local Secretaries and Recorders, to deal with suggested alterations to the Rules of the Society and to consider other matters concerning the future development of the Society.

#### 2. Meetings Committee.

To organise, and present reports of, all meetings of the Society, other than business meetings.

#### 3. Publications Committee.

To assist and advise the Hon. Editor in the production of Watsonia. Also to appoint the Editors of the Year Book and of such other publications (apart from programmes, notices, forms and other similar publications of a purely administrative nature) as the Council may approve, and to assist these Editors in their work.

# 4. Conservation Committee.

To take any action which may be desirable to conserve the British Flora, either alone or in collaboration with the Nature Conservancy or other bodies.

#### 5. Advertising Committee.

To take such steps as may be desirable to advertise the Society and its publications, and to obtain advertisements for insertion in its publications.

#### 6. Maps Committee.

To consider methods of recording in a readily available form data on the distribution of British vascular plants.

#### FIELD MEETINGS, 1950

JUNE 25th to JULY 1st, 1950. ISLE OF MAN.

Leader: Mr. Neil Matherson, J.P.

On the evening of 24th June, 14 of the 16 members and friends who were attending the Meeting assembled in the Manx Museum at Douglas where those who had not already met him were introduced to our Leader, who outlined the excellent programme that had been arranged. Members were also made familiar with the topography of the island, and the principal geological and climatic features were explained to them by Mr. P. E. Humphreys. Through the generosity of the Manx Museum Trustees, Mr. B. R. S. Megaw, the Curator, made a room at the Museum available for members in which to meet in the evenings and to attend to their presses and specimens. Needless to say this room was much used and, for some of us who collected, it helped to make the week a particularly profitable one.

The party left Douglas by coach on Sunday morning, 25th June, and in fine weather drove north along the coast road to Corrany, about three miles south of Ramsey. Here we were met by a keen local botanist, Mr. R. Howarth, whose great knowledge of the Isle and its plants helped not a little to make the week so successful. Whilst the day was spent exploring the Ballaglass Glen, Mr. Howarth took the writer to the north of the Isle to prospect the ground for Wednesday's visit to the Ayre.

On Monday the weather was again fine, and the party set off across the island by way of Crosby and Kirkmichael for the Curragh, a most fascinating marshy area, reminding one in some respects of the Somerset peat moors. Before we had gone far, however, mechanical trouble with the coach caused a halt to be made near Crosby whilst another coach was sent from Douglas. The time, however, was not wasted, for Nitella opaca Ag., new to vice-county 71, was found in the nearby R. Greeba during the enforced wait. At Ballaugh Curragh we were joined by Mr. Howarth, who directed the party along a track leading through this wild and otherwise impenetrable country. An exotic air was added to the scene by the huge inflorescences of New Zealand hemp, Phormium tenax J. R. & G. Forst., towering above the sedges and other native vegetation. It seems that the hemp was at one time tried as a commercial crop, but it was not a success and the project was abandoned. Many plants, however, survived, and even gave the appearance of being able to hold their own and spread by seed unaided by man. The coach was joined the other side of the Curragh, and the party moved on to explore Sulby Curragh. an area which, though not far away, proved to be very different botani-After an excellent tea in an hotel at Sulby, the party returned to Douglas for dinner and the evening's work.

On Tuesday, 27th, joined by the two remaining members, the south of the island was explored. The first stop was at Languess where the

party divided, some exploring the Langness peninsula whilst others worked the shore to the north past Derby Haven. Many sand-loving maritime species were found. We then visited Scarlet, one of the few places on the Isle of Man where the mountain limestone outcrops. Here, as might be expected, a number of plants, not seen hitherto, were observed. It was interesting to note how floristically poor the limestone flora of Scarlet is, and many species, which one might have expected to have found, were absent. The party then went to Cregneish, where a fine view of the Calf of Man was obtained. Here some left the coach to walk over Mull Hill to Port Erin whilst others went round by road.

At Port Erin our Leader had arranged for the party to visit the Marine Biological Station. We were met by the Acting Director, Mr. J. R. Bruce, who, with the help of his staff, most kindly showed us round his Station and entertained us to tea, after which we returned to Douglas by coach, making a short stop to visit Rushen Abbey on the way.

The same evening a reception was held jointly by the Manx Museum Trustees and the Isle of Man Natural History and Antiquarian Society, of which our Leader was the President. Our Society was honoured by the presence at the reception of His Excellency, the Lieutenant-Governor, Air Vice-Marshal Sir Geoffrey Bromet and Lady Bromet, to whom the members were presented. His Excellency, in a short address, to which the writer responded, welcomed the Society to the Isle of Man, and, later, Mr. D. E. Allen read a most interesting paper on the phytogeography of the Isle.

In low cloud and driving rain the party left by coach on Wednesday morning for the Ayrelands of Kirk Bride. The coach took us to the lighthouse at the Point of Ayre. Undaunted by the rain, which had now turned to a steady drizzle, many of us set off to walk along the coast towards Smeale, whilst others botanized around the lighthouse and, later, went round by coach to join the walkers near Rue Point. The land to seaward of the old fixed dunes was quite remarkable in its paucity of flowering plants and the dominance of lichens, reminding one of the description of tundra in the geography books. The flora of the fixed dunes and the arable fields behind them was also studied, and a number of interesting plants were recorded. Later the sun came through and dried us before we foregathered at the Hydro near Ramsey, where Mr. Howarth most generously entertained us to tea. On the return journey members were shown one of the localities where the Manx cabbage, Rhynchosinapis monensis (L.) Dandy, still grows.

Thursday was a real soaker! We went by coach to the Niarbyl, on the west coast a few miles south of Peel. Here we met the full force of a south-west gale, and whilst the conditions were far from ideal for botanizing, the party walked along the rugged cliffs, where the rain was blown up at one from below, and down to the shore where the fury of the sea was seen in all its magnificent grandeur. We ate our lunch in a café at the Niarbyl, after which we drove to Glen Maye. Here the wooded glen, which runs down to the sea, afforded the party considerable shelter

from the wind, and several more useful records were here obtained. Later we visited Peel, where the party escaped for a while from the elements by visiting a kipper factory! The return journey to Douglas was interrupted for a brief visit to Tynwald Hill.

Our last day, Friday, 30th June, was fine and sunny. The party visited some interesting ground around old mine workings at Eairy. Several plants not seen on the other days were here noted. After a picnic lunch we walked over the northern slopes of Granite Mountain to Barrule. Some members, feeling energetic, climbed to the summit of South Barrule, 1585 ft., whilst others explored the valley near the road. An excellent tea was much enjoyed in the Inn at Foxdale, after which we returned to Douglas where we bade a sad farewell to our able Leader, who, though not a botanist, had most patiently put up with all our eccentricities and who had so admirably conducted us to as wide an assortment of the Manx flora as one could hope to see in six days. Both to him and to Mr. Howarth the Society owes a very big "Thank you!"

The arduous task of recording was appropriately and efficiently undertaken by Mr. D. E. Allen, the Society's Recorder for v.-c. 71. Mr Allen is preparing a paper for *Watsonia*, which will include the more important discoveries that were made during this Meeting. Finally this brief account of what must have been one of the Society's most successful field meetings cannot close without an expression of our thanks to the driver of the coach, to whose wholehearted co-operation, skill and cheerfulness this success can in no small part be attributed.

E. MILNE-REDHEAD

JULY 14th to 16th, 1950. THE PEAK DISTRICT. Leaders: R. H. Hall, F. T. Hall and Miss R. Carey.

On Friday, July 14th, 24 members assembled at the Savoy Hotel, Buxton, for a week-end field meeting in the Peak District.

A preliminary meeting was held in the lounge of the Savoy Hotel at 8 p.m. on Friday evening when Mr. R. H. Hall explained that the main object of the excursions planned was to explore certain areas which had not been worked for many years, with a view to checking old records and making further contributions to the work of the revision of Linton's Flora of Derbyshire. It was pointed out that the accomplishment of this object would make it impossible to visit any of the well-known localities for Peakland rarities, although members staying on after the official excursions would have the opportunity to make private visits to these spots. The leader then outlined the programme for Saturday and Sunday and gave a résumé of plant records which it was hoped to check on those occasions.

# Saturday, 15th July.

In the morning the resident party, together with five guests from the Buxton Field Club, travelled by special coach to Carsington Pasture near Brassington, and two hours were spent exploring broken ground where extensive lead mining and prospecting had taken place during the 18th and 19th centuries. The vegetation was much affected by the nibbling of rabbits and the gravelly spoil heaps associated with the old lead mines supported a considerable amount of Arenaria verna L., which is a characteristic species in such habitats, and Viola lutea Huds. was an abundant associate along with a small amount of Viola lutea var. amoena Hensl. Other species noted include:—Parnassia palustris L., Galium saxatile L., G. pumilum Murr., Euphrasia nemorosa (Pers.) H. Mart., and E. confusa Pugsl. forma albida Pugsl.

Several members of the party visited the nearby Harborough Rocks during the morning to check upon certain records for *Hieracia* which appear in Linton's *Flora*. Of those mentioned, only *H. Lachenalii* C. C. Gmelin could be found. *Pimpinella major* (L.) Huds. and var. rosea (Koch) Druce were both observed on the edge of an arable field between Carsington Pasture and Harborough Rocks.

On reassembling at the coach, the party proceeded to the entrance to Biggin Dale where lunch was eaten. Unfortunately the weather became very wet and seriously curtailed activities during the afternoon. In spite of this, many of the members walked through the dale and saw a flora typical of both calcareous grassland and calcareous scrub. The grassland slopes supported a flora in which Polygala serpyllifolia Hose, P. vulgaris L., Silene nutans L., Hypericum montanum L., Alchemilla vestita (Buser) Raunk., Pimpinella Saxifraga L., P. Saxifraga var. dissecta With., Hieracium Lachenalii C. C. Gmelin, Euphrasia brevipila Burn. & Gremli, E. nemorosa (Pers.) H. Mart., Verbascum Thapsus L., Stachys officinalis (L.) Trev., Orchis mascula (L.) L., Carex caryophyllea Latourr., C. flacca Schreb., Trisetum flavescens (L.) Beauv., Helictotrichon pratense (L.) Pilger and Brachypodium sylvaticum (Huds.) Beauv. were noted.

The scrub zone on the east side of the valley contained some of the above-mentioned species together with Rubus conjungers (Bab.) W. Wats., Epipactis Helleborine (L.) Crantz, Tamus communis L. and Convallaria majalis L. The most interesting find was made on the broken ground immediately to the north of the scrub, and consisted of a small quantity of Galeopsis Ladanum L., a plant which had never previously been recorded for the dale, and one which is a rarity for the county as a whole. Members had tea at the Newhaven House Hotel at the conclusion of the afternoon's work.

#### Sunday, 16th July.

Forty members and friends took part in the Sunday excursions and travelled by private coach and cars to Coombs Dale on the north slopes of Longstone Edge. Heavy rainstorms during the morning again made observation and collecting difficult. In spite of this a wide range of calcicolous species was seen in this dale where extensive stretches of grassland and scrub are to be found. The scrub yielded Malva moschata L., Rubus vestitus Weihe & Nees, R. Hystrix Weihe, R. saxatilis L., Inula Conyza DC., Campanula Truchelium L., Myosotis sylvatica

Hoffm., Convallaria majulis L. and Melica nutans L., together with several species of Rosa still awaiting critical determination. At the junction of Coombs Dale and Rough Side Cirsium eriophorum (L.) Scop. was found to be locally abundant, more especially on the rough ground associated with the old lead mine workings. This is a species which is rare on the Carboniferous Limestone of the Peak District. The grassland slopes provided many typical species, the more notable being:—Sagina nodosa (L.) Fenzl, S. apetala Ard., Potentilla verna L., Alchemilla glabra Neygenfind, Galium saxatile L., G. pumilum Murr., Myosotis arvensis (L.) Hill, Euphrasia nemorosa (Pers.) H. Mart., Gymnocarpium Robertianum (Huffm.) Newm.

At the end of the morning the party returned to the bus for lunch, during which they listened to a recorded broadcast discussion on British Orchids in which Mr. V. S. Summerhayes of Kew was taking part. Interest in this talk was greatly enhanced by the fact that Mr. Summerhayes himself was present with us in the bus and available to receive our thanks and congratulations on its conclusion.

After lunch the weather improved considerably and the party was conveyed to Brampton East Moor where facilities for exploration had very kindly been granted to the Society by the Chatsworth Estates Ltd. The afternoon's search of this stretch of moorland proved to be the most useful botanical work done during the week-end. Many of the old records mentioned by the leader in the preliminary discussion on Friday evening were re-established and several new ones added. The following plants might be mentioned: -Viola palustris L., Drosera rotundifolia L., Hydrocotyle vulgaris L., Galium uliginosum L., G. palustre L., Valeriana dioica L., Vaccinium Myrtillus L., V. Vitisidaea L., Oxycoccus palustris Pers., Erica cinerea L., E. Tetralix L., Anagallis tenella (L.) Murr., Menyanthes trifoliata L., Salix atrocinerea Brot., Empetrum nigrum L., Orchis ericetorum (E. F. Linton) E. S. Marshall, Juneus conglomeratus L., J. effusus L., J. articulatus L., J. bulbosus L., J. squarrosus L., Potamogeton polygonifolius Pourr., P. Berchtoldii Fieb., P. alpinus Balb., Scirpus pauciflorus Lightf., Carex Hostiana DC., C. demissa Hornem., C. panicea L., C. nigra (L.) Reichard, C. ovalis Good., C. echinata Murr., C. curta Good., C. pulicaris L., C. dioica L., Agrostis stolonifera L. tion to the above species from the moor Nasturtium microphyllum (Boenn.) Reichb. and Epilobium obscurum Schreb, were collected by the roadside where the bus was parked. The former appears to be the first published record for this species for v.-c. 57.

At the close of the afternoon's botanizing the party returned to Baslow, where an excellent tea was provided at the Peacock Hotel.

Although this concluded the official excursions, several members remained in Buxton for a few more days and were taken to places of botanical interest by Miss R. Carey and Mr. F. T. Hall. From these supplementary excursions Mr. Summerhayes records *Epilobium obscurum* Schreb. and *Myosotis secunda* A. Murr. from Hogshaw Brook, Buxton, and confirms *Gymnadenia conopsea* (L.) R. Br. var. densifiora

(Wahl.) Reichb. for Grin Woods, Buxton, in a site known to the leaders for many years.

Thanks are due to the following referees for their kind assistance in checking and naming critical plants:—J. P. M. Brenan, J. E. Dandy, C. E. Hubbard, R. Melville, E. Nelmes, N. Y. Sandwith, H. K. Airy Shaw, V. S. Summerhayes, A. E. Wade, E. F. Warburg, W. C. R. Watson, and to those members of the party who have contributed records.

R. H. Hall.

#### FIELD MEETINGS, 1951

# MAY 4th to 6th, 1951. IPSWICH.

Leader: F. W. SIMPSON.

The object of this meeting, held in conjunction with the Suffolk Naturalists' Society, was to study the spring annuals on the sandy heaths and fallow fields near Woodbridge. It was attended by 36 members.

Friday, 4th May.

The Ipswich Museum Committee had kindly placed a room at our disposal in the Museum, High Street, and members met there at 8 p.m. Dr. J. G. Dony introduced the leader, who outlined the programme and the objects of the meeting. Mr. Simpson then gave an informal lecture on the botany of Suffolk, illustrated with 130 lantern slides of photographs he had taken. He stressed the disappearance of some species and the present rarity of others which was due almost entirely to the extinction or change of use of their natural habitats. The activities of Agricultural Committees, the Forestry Commission, the Defence Ministries, and the County Councils were diminishing the native flora rapidly.

Saturday, 5th May.

Members set out by coach and private cars for Chillesford. passed en route plantations of conifers which now extend over a large area which was formerly open heathland or light arable land. Near Butley we saw the forest of Staverton, which contains many old oaks and some fine hollies. This forest may well have been aboriginal and have extended over a much wider area in primitive times. At Chillesford the party was met by the Hon. Mrs. Alastair Watson, who had given permission for it to visit the estate. The area selected for exploration consisted mainly of a somewhat barren warren at the head of Butley Creek. The soil is glacial sand capping the shelly deposits of Pliocene Red Crag and the earlier Coralline Crag which is a much harder deposit, formerly used as a building stone. The flora of the area is similar to that of the Breck. In order to cover as much ground as possible members went off in small groups. The vegetation of the more open parts was only a few inches high, but several of the local plants were soon found: Teesdalia nudicaulis, Tillaea muscosa, Vicia Lathyroides and Trifolium suffocatum. Montia verna, a new district record, was also found; it had previously been found in the vice-county but recorded as M. fontana.

After lunch we visited the heathland and plantations at Sudbourne and Iken. Some of this area has probably never been cultivated and only little grazed, the dominant plant being Carex arenaria. In 1950, however, a considerable part was roughly ploughed and planted with young conifers. This disturbance had permitted the germination and growth of dormant seeds of spring annuals and heathland species. Teesdalia nudicaulis was particularly abundant, and there were some fine patches of Viola Pesneaui, with flowers of many beautiful shades. With the growth of the trees this flora will vanish in a few years.

The return journey was made by way of Iken to Blaxhall where a brief halt was made on the Common to see Moenchia erecta and a profusion of Claytonia perfoliata. At Bromeswell a short visit was made to an alder carr by permission of Mrs. A. Welford. This enabled some members to see Adoxa Moschatellina and Chrysosplenium oppositifolium, but C. alternifolium, which used to occur there, was not found. An adjoining wood with a fine show of primroses and marsh marigolds was much admired.

# Sunday, 6th May.

A start was made in misty and cloudy weather, but before noon the clouds had cleared and warm sunshine was enjoyed. Travelling by way of Foxhall we passed through some lovely birch heathland, part of which has been cleared and converted into a speedway. Members expressed their regret that such a delightful area should be so used. At Brightwell a halt was made to see *Turritis glabra* growing on a road-side bank where it has been known for a number of years. The party then proceeded to Sutton Common where the flora was found to include most of the species seen on the previous day. Lunch was had at Ramsholt, a pretty spot on the left (east) bank of the Deben.

In the afternoon we proceeded to Shingle Street, a coastal hamlet of Hollesley, at the mouth of the Ore. Here there is a wide pebble beach, an extension of the well-known beach of the Orfordness peninsula. The backwardness of the season had retarded species such as Vicia lutea and Lathyrus maritimus, so characteristic of these beaches. We were, in any case, too early for some of the clovers, but Trifolium scabrum, T. suffocatum and T. filiforme were seen.

Members were invited by Mr. L. H. Vulliamy, a member of the Suffolk Naturalists' Society, to have tea in his bungalow at Shingle Street. This was much appreciated, and he was cordially thanked at the teatable, as was the leader for his services.

F. W. SIMPSON.

# SOME PLANTS OBSERVED.

#### MELTON

45/5 Cochlearia anglica L.

49/4 Sisymbrium orientale L. 49/7 Arabidopsis Thaliana (L.)

Arabidopsis Thaliana (L.)
Hevnh.

383/7 Senecio squalidus L.

581/4 Lamium hybridum Vill.

735/1 Triglochin maritimum L. 625/1 Hippophae Bhamnoides L.

#### CHILLESFORD

66/1	Teesdalea nudicaulis (L.) R. Br.	155/18	Trifolium suffocatum L.
100/8	Cerastium semidecandrum L.	176/14	Vicia Lathyroides L.
101/3b	Stellaria apetala Ucria.	189/4	Potentilla argentea L.
103/7	Sagina ciliata Fr.	209/1	Tillaea muscosa L.
	Claytonia perfoliata Willd.	506/9	Myosotis hispida Schlecht.
109/2	Montia verna Neck.	506/10	Myosotis discolor Pers.
128/3	Erodium cicutarium (L.) L'Hérit	524/1	Hyoscyamus niger L.
	subsp. dunense Andreas.	663/1	Listera ovata (L.) R. Br.
120/0			

#### SUDROURNE AND THEN

17/2 Mahonta Aquifolium (Pursh) 88/35 V. Pesneaui Lloyd. Nutt. 155/18 Trifolium suffocatum L	
Nutt. 155/18 Trifolium suffocatum L	
31/1 Corydalis claviculata (L.) DC. 176/14 Vicia Lathyroides L.	
39/4 Cardamine flexuosa With. 207/3 Ribes rubrum L.	
39/5 C. hirsuta L. 209/1 Tillaea muscosa L.	
66/1 Teesdalea nudicaulis (L.) R. Br. 625/1 Hippophae Rhamnoides	L.
88/22 Viola agrestis Jord.	

#### ORFORD.

703/1 Muscari racemosum (L.) DC.

#### BLAXHALL.

100/1 Moenchia erecta (L.) Gaertn., 108/2 Claytonia perfoliata Willd. Mey, and Scherb.

#### BROMESWELL

101/3b	Stellarie	a petala Ucria
176/14	Vicia L	athyroides L.

203/2 Chrysosplenium oppositifolium L. 286/1 Adora Moschatellina L.

## BRIGHTWELL

37/6 Turritis glabra L.

#### SUTTON

66/1	Teesdalea nudicaulis (L.) R. Br.	506/9	Myosotis hispi	lda Sch	lecht.,	varie-
88/35	Viola Pesneaut Lloyd		ties with	white	and	cream
155/18	Trifolium suffocatum L.		petals.			
178 / 14	Vicia Lathurnides I.					

176/14 Vicia Lathyroides L.

### RAMSHOLT

199/20	Saxifraga	tridactylites	L.	524/1	Hyoscyamus	niger	Ţ.,
155 / 18	Trifolium	suffocatum L					

#### HOLLESLEY

6/23	Ranunculus Drouetii F.	155/22	Trifolium filiforme L.
	Schultz ex Godr.	176/9	Vicia lutea I
45/7	Cochlearia danica L.	176/13	V. angustifolia L.
1.00/8	Cerastium semidecandrum L.	176/14	V. Lathyroides L.
100/9	C. tetrandrum Curt.	178/4	Lathyrus maritimus (L.) Bigel.
153/6	Medicago minima (L.) Bartol.	189/4	Potentilla argentea L.
155/10	Trifolium scabrum L.	651/8	Populus alba L.
155/18	T. suffocatum L.		

## JUNE 15th to 18th, 1951. MONMOUTH

## Leader: A. E. WADE

The meeting was attended by 36 members and guests: It opened on Friday evening, June 15th, with an informal gathering at the headquarters, the Beaufort Arms Hotel, where a room had been placed at our disposal for meetings.

The leader briefly outlined the programme and referred to the types of vegetation represented and the more interesting plants to look for in the localities it was intended to visit.

## SATURDAY, 16TH JUNE.

A motor coach conveyed the party to Staunton from where they walked through Reddings Inclosure, a part of the Forest of Dean, to Lady Park Wood and the wooded limestone cliffs. The woods are typical of those on Carboniferous Limestone in the Wye Valley, the abundance of *Tilia cordata* being an outstanding feature.

Tilia platyphyllos, Sorbus terminalis and S. Aria were seen about the cliffs, whilst higher up Carex digitata and Luzula Forsteri were noted. Other plants seen in the wood included Aquilegia vulgaris, Dipsacus pilosus, Campanula Trachelium, Melica nutans and Festuca altissima.

The party returned to Staunton for tea at the White Horse Inn, after which some members walked up the hill to the Buckstone, others visited the wood below to see *Pyrola minor*, whilst a smaller party contented themselves with exploring the immediate neighbourhood of the village. The return to Monmouth was made by motor coach.

## SUNDAY, 17TH JUNE.

A motor coach conveyed the party on a delightful drive down the Wye Valley to the Wyndcliff, near Tintern. Here the party split up into groups; some worked the woods and roadsides below the cliff, and others climbed the steps to the top. A search was made for some of the plants recorded for the locality, including Pyrola secunda, but this last was not found. The excessive growth of ivy on the cliff and below it seems to have ousted many of the plants formerly found there. Some fine colonies of Pyrola minor and Neottia Nidus-avis were seen under beeches. After a picnic lunch, the party went by coach first to Magor, to see a remarkably fine growth of Azolla fliculoides and make an all too brief search of the drainage ditches, locally known as "reens", and then to Undy to examine the marshes. These marshes have been formed in recent years on fields where flooding has persisted. Oenanthe aquatica and Rumex palustris were amongst the many marsh plants seen.

Tea was taken at Tudor Café, Chepstow. On the return journey to Monmouth a stop of about an hour was made at Blackcliff, near Tintern, where large colonies of Convallaria majalis occur. Neottia Nidus-avis and Pyrola minor again delighted the eye beneath the beeches. Festuca altissima was seen on the cliffs, and in the rocky wood below a fine colony of Chrysosplenium alternifolium was found.

#### MONDAY, 18TH JUNE.

A motor coach took the members to Trelleck where the marsh at the Virtuous Well was examined. Orchis praetermissa and the hybrid

between it and O. ericetorum were seen, and a fine colony of Catabrosa aquatica, a rare plant in the county, was noted by the well. The party then walked on to Trelleck Bog; this is, strictly speaking, lowland moor rather than true bog. Owing to the lateness of the season this 'bog' proved to be somewhat disappointing, very few plants having grown through the dead cover of last year's growth. After a picnic lunch the party divided. The main party walked via Pen-y-fan to Llandogo, examining an acid marsh on the way, whilst the other took a shorter route through Cuckoo Wood. Since several members wished to return home in the evening, the Departure for Monmouth was made at 4 o'clock.

Although, owing to the backwardness of the season, many plants which one would have normally seen were not in evidence, we were compensated by perfect weather and the pleasure of botanizing amid delightful scenery.

Grateful thanks are due to Mr. S. G. Charles of Monmouth for his assistance in leading the excursion. His intimate knowledge of the country around Monmouth and its flora was much appreciated.

A list of the more interesting species seen is appended. records were made during the meeting independently of the official excursions: these are indicated by the name of the recorder.

- 6/20Ranunculus fluitans Lam. River Wye, Monmouth. 6/21R. circinatus Sibth. Magor. 6/22R. trichophyllus Chaix. Undy. 6/23R. Drouetti F. Schultz ex Godr. Magor. R. heterophyllus Weber var. trifidus Pearsall. Near Troy Station. 6/24bMonmouth (A.E.W.) Aquilegia vulgaris L. Lady Park Wood. 11/1 35/1(2)Nasturtium microphyllum (Boenn.) Rchb. 35/3 Rorippa amphibia (L.) Besser. Monmouth, Undy. 35/4 R. islandica (Oeder) Borbás. Monmouth. 39/3Cardamine impatiens L. Bigsweir (R. Lewis); Lady Park Wood; Wyndeliff. 47/2 Hesperis matronalis L. Railway bank, Bigsweir (R. Lewis). Helianthemum nummularium (L.) Mill. Wyndcliff. 87/2 98/1 Lychnis Flos-cuculi L. An almost white-flowered form. Trelleck. 101/1 Stellaria aquatica (L.) Scop. Monmouth. 101/2S, nemorum L. Between Bigsweir Bridge and Redbrook (R. Lewis). S. neglecta Weihe var. Elizabethae (F. Schultz) Béguinot. Near Troy 101/4bStation. Hypericum hirsutum L. Lady Park Wood; Wyndeliff. 112/8 H. dubium Leers. Wyndcliff; Llandogo; Trelleck. 112/12H. Elodes L. Pen-y-fan, near Whitebrook. 112/17
- Tilia platyphyllos Scop. Limestone cliffs. Lady Park Wood. 127/1 Geranium sanguineum L. Wyndeliff.
- 127/6 G. Endressi Gay. Roadside, Cuckoo Wood, Llandogo. 127/8 G. columbinum L. Redding's Inclosure (v.-c. 34).
- Impatiens glandulifera Royle. Bank of River Trothy, near Troy 133/4 Station, Monmouth (A.E.W.).
- Trifolium filiforme L. Lady Park Wood. 155/22
- Lathyrus montanus Bernh. Redding's Inclosure (v.-c. 34); Lady 178/25Park Wood; Wyndeliff; Cleddon; Llandogo.
- 183/3 Prunus avium (L.) L. Wyndeliff.
- 185/154 Rubus saxatilis L. Wyndeliff.

123/1

- 190/4 Alchemilla vestita (Bus.) Raunk. Redding's Inclosure (v.-c. 34). Ladv Park Wood.
- 193/1 Poterium Sanguisorba L. Lady Park Wood: Wyndeliff.
- 195/13 Sorbus Aria (L.) Crantz, Limestone cliffs, Lady Park Wood: Wyndcliff: Blackcliff.
- 195/15 S. torminalis (L.) Crantz. Limestone cliffs. Lady Park Wood: Wynd-
- 196/10 Pyracantha coccinea M. J. Roem. Edge of a wood between Redbrook and Monmouth (R. Lewis).
- 197/2 Cotoneaster microphyllus Wall, ex Lindl. Cuckoo Wood, Llandogo.
- 199/20 Saxifraga tridactylites L. Trelleck.
- Chrysosplenium alternifolium L. Blackcliff Wood, Tintern. 203/1
- 211/4 Sedum Forsterianum Sm. Walls, between Trelleck and Cleddon.
- 211/20(2) S. spurium M. Bieb. Walls, between Trelleck and Cleddon.
- 217/2Callitriche obtusangula Le Gall ex Hegelm. Reens, Undy and Magor.
- 217/5C. intermedia Hoffm. Undv 217/5e C. intermedia var. pedunculata (DC.) Druce. Undy.
- 220/5 Epilobium tetragonum L. Wall in Cuckoo Wood, Llandogo.
- 250/3 Carum Petroselinum (L.) Benth. Chepstow Castle.
- 265/1Oenanthe aquatica (L.) Poir. Undy.
- 265/7 O. fistulosa L. Magor; Undy.
- Viburnum Lantana L. Lady Park Wood; Wyndeliff: Blackeliff. 288/2
- 295/1Rubia peregrina L. Lady Park Wood; Wyndeliff.
- 296/6 Galtum uliginosum L. Marsh by the Virtuous Well, Trelleck.
- 301/3 Valeriana dioica L. Marsh by the Virtuous Well, Trelleck.
- Valerianella Locusta (L.) Betcke. Railway bank, Bigsweir (R. Lewis); 304/1walls, Llandogo.
- 306/2 Dipsacus pilosus L. Lady Park Wood,
- Scabiosa columbaria L. Wyndeliff. 308/1
- 327/1 Anaphalis margaritacea (L.) Benth. Old quarry, Wyndeliff Wood.
- 353/2 Bidens tripartita L. Undy.
- 365/11 Achillea Ptarmica L. Banks of R. Wye, Monmouth.
- 3777 Tanacetum vulgare L. Redding's Inclosure (v.-c. 34): Banks of R. Wve. Monmouth.
- 380/3 Petasites fragrans (Vill.) C. Presl. Cuckoo Wood, Llandogo.
- 391/1 Carlina vulgaris L. Wyndeliff.
- 425/2 Lactuca serriola L. Undy.
- 435/3 Campanula Trachellum L. Lady Park Wood.
- Oxycoccus palustris Pers. Trelleck Bog. 439/1
- 446/1 Erica cinerea L. Dry margins of Trelleck Bog.
- 446/2 E. Tetralix L. Trelleck Bog.
- 453/3 Purola minor L. Wyndeliff Wood. Also wood near Staunton, v.-c. 34.
- 467/1 Anagallis tenella (L.) Murr. Trelleck Bog.
- Sumphytum peregrinum Ledeb. Cuckoo Wood, Llandogo. 497/4
- 500 / 1 Anchusa sempervirens L. Cuckoo Wood, Llandogo,
- 506/8b Muosotis arvensis (L.) Hill var. silvestris (Schlecht.). Redding's Inclosure (v.-c. 34).
- M. discolor Pers. var. dubia (Arrond.) Wade. Railway side, near 506/10e Troy Station, Monmouth.
- 534/1 Antirrhinum majus L. Monmouth Castle.
- Veronica catenata Pennell Undy 543/9
- V. filiformis Sm. Bank of the River Wye, below Lady Park Wood: 543 / 41 abundant along the R. Wye between Llandogo and Bigsweir (R. Lewis).
- Mentha rotundifolia (L.) Huds. Wayside below Lady Park Wood. Meltssa officinalis L. Meadow, Llandogo. 558/1
- 565/1
- Chenopodium ficifolium Sm. Undy 600/12
- Polugonum Bistorta L. Near Cleddon. 615/3
- Rumex palustris Sm. Undy. 618/12

- 623/1 Daphne Laureola L. Redding's Inclosure (v.-c. 34); Lady Park Wood; Wyndcliff.
- 628/6 Euphorbia stricta L. Blackcliff.
- 650/9×10 Salix atrocinerea × aurita, with the parent species. Trelleck Bog.
- 654/1 Hydrocharis Morsus-ranae L. Magor.
- 662/1 Neottia Nidus-avis (L.) Rich. Redding's Inclosure (v.-c. 34); Wyndcliff and Blackcliff Woods.
- 663/1 Listera ovata (L.) R.Br. Trelleck; Lady Park Wood; Wyndcliff Wood.
- 668/2 Epipactis Helleborine (L.) Crantz. Redding's Inclosure (v.-cs. 34 and 35).
- 669/8 Orchis praetermissa Druce. Near the Virtuous Well, Trelleck and Trelleck Bog.
- 669/10 O. ericetorum (E. F. Linton) E. S. Marshall. Near the Virtuous Well, Trelleck and Trelleck Bog.
- 669/10×8 O. ericetorum × praetermissa. Near the Virtuous Well, Trelleck.
- 674/1 Gymnadenia conopsea (L.) R.Br. Trelleck Bog.
- 674/6 Platanthera chlorantha (Custer) Rchb, Lady Park Wood; Wyndcliff Wood.
- 674/7 P. bifolia (L.) Rich. Pen-y-fan.
- 691/3 Polygonatum odoratum (Mill.) Druce. Wyndeliff Wood.
- 694/1 Convallaria majalis L. Wyndeliff and Blackeliff Woods.
- 713/1 Colchicum autumnale L. Lady Park Wood.
- 714/1 Narthecium ossifragum (L.) Huds. Trelleck Bog.
- 719/3 Luzula Forsteri (Sm.) DC. Lady Park Wood; Wyndcliff Wood; Cuckoo Wood, Llandogo.
- 727/2 Lemna polyrhiza L. Magor.
- 727/3 L. trisulca L. Magor; Undy.
- 727/4 L. gibba L. Magor.
- 737/2 Potamogeton polygonifolius Pourr, Trelleck Bog.
- 737/28 P. pectinatus L. Magor.
- 746/I Scirpus sylvaticus L. Between Llandogo and Bigsweir Bridge (R. Lewis).
- 747/1 Eriophorum latifolium Hoppe. Trelleck Bog.
- 747/2 E. angustifolium Honck. Trelleck Bog.
- 747/4 E. vaginatum L. Trelleck Bog.
- 753/1 Carex Pseudocyperus L. Magor.
- 753/2 C. riparia Curt. Magor.
- 753/3 C. acutiformis Ehrh. Magor.
- 753/7 C. rostrata Stokes. Near the Virtuous Well, Trelleck.
- 753/9c C. hirta L. var. hirtiformis Pers. Llandogo.
- 753/10 C. pendula Huds. Lady Park Wood; Wyndcliff and Blackcliff Woods,
- 753/12 C. strigosa Huds. Redding's Inclosure (v.-cs. 34 and 35); below the Buckstone (v.-c. 34).
- 753/15 C. binervis Sm. Trelleck Bog.
- 753/20(2) C. demissa Hornem, Near the Buckstone (v.-c. 34).
- 753/25 C. digitata L. Lady Park Wood: Wyndeliff Wood.
- 753/32 C. pilulifera L. Lady Park Wood.
- 753/34 C. pallescens L. Redding's Inclosure (v.-c. 34); Trelleck,
- 753/46 C. gracills Curt. R. Wye, between Llandogo and Bigsweir (R Lewis); by the R. Wye, below Lady Park Wood.
- 753/61 C. Pairaei F. Schultz. Bank, Wyndeliff Wood.
- 753/62 C. divulsa Stokes. Lady Park Wood.
- 753/63 C. pantculata L. Near the Virtuous Well, Trelleck,
- 753/66 C. disticha Huds. Magor.
- 814/1 Catabrosa aquatica (L.) Beauv. By the Virtuous Well, Trelleck.
- 818/1 Melica nutans L. Lady Park Wood; Wyndeliff and Blackeliff Woods; Cuckoo Wood, Llandogo.
- 822/1b Briza media L. var. albida Lej. Redding's Inclosure (v.-c. 34).

826/5	Festuca altissima All. Lady Park Wood; Blackcliff.
826/18	F. myuros L. Railway track, near Troy Station, Monmouth (A.E.W.).
827 /7	Bromus erectus Huds. Redding's Inclosure (vc. 34).
866/1	Ophioglossum vulgatum L. Lady Park Wood.
868/1	Azolla filiculoides Lam. Magor.

A. E. WADE.

## JUNE 23rd, 1951. HALLING DOWN, KENT Leader: Dr. R. MELVILLE

This meeting was arranged to give members an opportunity of studying at flowering time the same group of roses that had been examined in fruit at the earlier excursion of September 16th 1950. It was attended by 24 members and friends, but Mr. F. Rose was prevented by family affairs from again being present as joint leader. Owing to the late season the roses were in good flower with the exception of Rosa spinosissima, which, as usual, was just finishing as the majority came into bloom, and R. arvensis, which had not yet opened.

Since no detailed account of the previous excursion was given it will be convenient, here, to describe the work of both. As a preliminary, a brief discussion of the cytology of the British roses was given. The basic chromosome number in the genus is 7, but R. arvensis is the only diploid (2n=14). R. spinosissima is a balanced tetraploid (2n=28) and R. mollis an unbalanced tetraploid. The remaining species all appear to be pentaploids although occasional individuals may be hexaploid or have some other chromosome number. The method of reproduction is peculiar. The pentaploids all have haploid pollen grains (n=7), the remaining four sets of chromosomes degenerating. In the egg cells, on the other hand, four sets of chromosomes survive and one set degenerates. The result is that when fertilization takes place the resultant embryo is once again pentaploid. Similarly, in the unbalanced tetraploid, the pollen is haploid and the egg cells triploid. All except the balanced tetraploid produce haploid pollen, with the obvious possibility that pollen of any one may fertilize the ovary of any other. Such a system of reproduction would allow of endless recombination of characters and appears to be the explanation of the great variability of our roses. Field studies of rose populations and the distribution of individual characters among the species occurring together in particular habitats seem to indicate that this is exactly what takes place. Small wonder, therefore, that the roses form a critical group and afford us difficulty in their classification. It is much easier to criticise existing classifications, such as that provided in Wolley-Dod's monograph, than to provide a good alterna-That can only come as a result of detailed study with the peculiarities of the group kept well in mind.

The purpose of these excursions was to point out the features characteristic of the common species, how these are distributed over the plant and how they mingle and interact in hybrids. To represent a plant properly in the herbarium it is necessary to have flowering shoots with well-developed leaves on the fertile shoots, a piece of a vegetative ex-

tension shoot, fruiting shoots gathered as the hips turn colour and before the sepals drop and a sample of the armature of the main stem.
The method of taking a long sliver of bark from the stem to show the
types and spacing of the prickles was demonstrated. This is pressed in
the usual way so that it is easily mounted with the prickles in profile.
Notes of the habit of the bush, the colour of the petals and their claws
and of the stamens, as well as of the perfume should be made at the
time of collection. In glandular forms the odour given off on rubbing
should be noted as well. The necessary specimens can all be gathered
on two visits.

It would take up too much space here to detail the characters of the species as they were demonstrated on the living plants, but it may be of interest to record the identifications of the marked bushes that were discussed. These are given in accordance with Wolley-Dod's monograph, together with an opinion of the true nature of the plant. The numbers are my field numbers, by which the specimens placed in the herbarium at Kew can be identified.

- 50.128. Rosa canina L. var. senticosa (Ach.) Baker = R. canina × arvensis.
- 50.129. R. canina L. var. senticosa (Ach.) Baker = R. canina × arrensis.
- 50.130. R. rubiginosa L. var. rotundifolia Rau = R. rubiginosa form.
- 50.131. R. tomentosa Sm. var. typica W. Dod = R. tomentosa × rubiginosa.
- 50.132. R. rubiginosa L. var. typica W.-Dod = R. rubiginosa typical. 50.133. R. canina L. var. sylvularum (Rip.) Rouy = R. micrantha × arvensis.
- 50.134. R. canina L. var. flexibilis (Déségl.) Rouy = R. canina × arvensis.
- 50.135. R. tomentosa Sm. var. pseudocuspidata (Crép.) Rouy = R. tomentosa (doubtfully pure).
- 50.136. R. canina L. f. vinacea (Baker) Rouy = R. rubiginosa × arvensis.
- 50.137. Near R. micrantha Sm. var. septicola (Déségl.) Gron. = R. micrantha × arvensis.
- 50.138, R. canina L. f. recognita Rouy = R. canina  $\times$ ? micrantha  $\times$  arvensis.
- 50.139. R. arvensis Huds. var. vulgaris Ser. = R. arvensis typical.
- 50.140. R. tomentosa Sm. var. typica W. Dod = R. tomentosa, doubtfully pure.
- 50.141. R. tomentosa Sm. f. foetida (Bast.) Ser. = R. tomentosa x? micrantha.

The pentaploid roses are necessarily matriclinal in character, since the egg cells receive four sets of chromosomes from the female parent to one set from the pollen parent. The appearance of hybrids in which R. arvensis is a parent suggests that this species is almost invariably the pollen parent, a view that is receiving confirmation from breeding work being carried on at the John Innes Horticultural Institution by Mr. G. D. Rowley, who was a guest at both excursions. Although the suggested parentages apply only to the particular bushes, it is, nevertheless, probable that the corresponding Wolley-Dod names are normally attached to similar hybrids. The mention of two species only in a suggested parentage does not exclude the possibility that genes from other species are present in the inheritance of a particular bush. It commonly implies that characters from the two species mentioned can be definitely recognised and that evidence of other species, although often Finally, it must be emphasised that the suspected, is inconclusive. conclusions reached depend upon the correlation of as many characters as it has been possible to observe, including not only the fruit, sepal, gland and leaf characters commonly employed, but petal colour and colour changes, flower perfume, colour and texture characters of stems and leaves and the nature and distribution of the stem armature.

R. MELVILLE.

JUNE 30th, 1951. CLIVEDEN, BUCKS.
The account of this Field Meeting has not yet been received.

JULY 6th to 10th, 1951. ARBROATH
Leaders: Miss U. K. Dungan and Miss M. S. Campbell

This excursion, arranged primarily for Scottish members, was organised and led by Miss Ursula Duncan, with Miss M. S. Campbell as assistant leader. Seventeen members and one guest attended. The weather was generally kind, rain only falling on two occasions, and scarcely affecting the programme.

The party foregathered at the North Sea Hotel in Arbroath on the evening of July 6. Introductions were made, and the excursion formally inaugurated with a short talk on the botanical history and potentialities of the county of Angus. It was explained that as the places to be visited were mostly well known and had been continuously worked since the time of George Don, new records in non-critical genera were unlikely to be made. On the other hand, genera, such as Alchemitta, which had recently become of renewed interest in the British Isles, should be carefully sought in order, if possible, to increase knowledge of the distribution of component species. Less experienced members were invited to ask as many questions as they liked, and in fact a good deal of useful teaching was done in the field; for example, when three different Gerastia were seen growing together the distinctive characters of each were demonstrated in situ.

July 7 was the first day in the field. All members travelling in private cars, the first call was made at Friockheim, where Rudbeckia laciniata L. was shown on a railway bank where it had long been established. Also on this bank was a quantity of Campanula rapunculoides L. In a clear stream at the foot of the bank were Potamogeton alpinus Balb. and P. crispus L., with Mimulus guttatus DC., Veronica Anagallisaquatica L. and Nasturtium officinale R. Br.

The party then proceeded to the "pools of Balgavies." These "pools" lie a short distance east of Balgavies Loch, which, with Rescobie Loch, was also visited. The "pools", Balgavies Loch and Rescobie Loch form a chain running roughly east-west. Rescobie Loch and the "pools" seem to be receding through natural processes. In each case the flora, which is paludal (varying from spongy, with Sphagnum spp., to marshy, with Phragmites communis Trin. and various sedges), is similar but with certain species peculiar (in a local sense) to one or the other. Species common to all three are, inter alia,

Comarum palustre L., Cicuta virosa L., Elodea canadensis Michx. and Lysimachia thyrsiflora L. At the "pools" Stratiotes aloides L., introduced by Don, still flourishes and continues to flower, and some members were able to see this species in flower for the first time. Along the edge of the water were quantities of Carex diandra Schrank and C. disticha Huds., while on dry ground a little above the level of the loch Aphanes microcarpa (Boiss. et Reut.) Rothm. (confirmed by Dr. Walters) was found.

The two above-mentioned sedges also occur at Rescobie Loch, where members also saw Calamagrostis epigejos (L.) Roth, <u>C. neglecta G. M.</u> & S., Salix pentandra L., and a rather odd form of Ranunculus Lingua L. with small, "double" flowers. In the water of Rescobie Loch were Zannichellia palustris L., Callitriche autumnalis L., and <u>Potamogeton filiformis Pers.</u>, all of which were also seen in Balgavies Loch with, in addition, <u>Potamogeton crispus L.</u>, <u>P. lucens L.</u>, <u>P. Friesii Rupr.</u>, <u>P. pusillus L. and P. obtusifolius Mert. & Koch. Alchemilla obtusa Buser, though looked for, was not found, but it is perhaps relevant to record that certain members of the party returned to the locality later in the year, and were successful.</u>

This day closed with a visit to the Moss of Restenneth, well known as the locality for the long-extinct *Eriophorum alpinum* L., which was lost through drainage over 100 years ago. There is still extensive swamp here, some of it alarmingly deep, with *Comarum palustre* L., *Carex paniculata* L. and some magnificent C. lepidocarpa Tausch.

Sunday, July 8th, began with a visit to the Mains of Usan, where Carex maritima Gunn. and Blysmus rufus (Huds.) Link were shown on the sand of the sea-shore. The party then crossed over the North Esk into Kincardineshire (v.-c. 91) for an examination of the flora of St Cyrus cliffs and the dunes and salt-marsh lying below. The assembly point was by the bothic below Kirkside House, where all three types of plant association meet. The St Cyrus cliffs, incidentally a most beautiful place, were a mass of colour with the Solidago, Verbascum Thapsus L., Campanula glomerata L. and other common but showy plants that thrive here on the (Lower) Old Red Sandstone. Here and there among the delightful vegetation are plants of less common occurrence: -Vicia lutea L., V. sylvatica L., Silene nutans L. var. Smithiana Moss, Geranium sanguineum L., Allium carinatum L., Astragalus danicus Retz. and A. glycyphyllos L. (the Allium was not showing owing to the The dunes below have Trifolium striatum L., Ammophila season). arenaria (L.) Link, Elymus arenarius L. and Thalictrum marinum Both cliffs and dunes abound with Viola Lloydii Bor. salty area was characterised by Sagina maritima Sm., Glaux maritima I.., Cochlearia officinalis L., Aster Tripolium L. and Juncus Gerardi Lois. In a nearby potato field some plants of Lamium moluccellitolium Fr. were found,

The last call of the day was on the shingle beach of the North Esk above the North Water Bridge (still in v.-c. 91) where Lepidium Smithii

Hook., a lupine seedling, Symphytum officinale L., S. tuberosum L., Viola variata Jord., Impatiens parviflora DC., Aphanes arvensis L. and Galium boreale L. were seen, the last-named evidently a wash-down from higher ground.

Monday, July 9, started with a walk along the top of the cliffs northwards from the Arbroath pleasure-park. Here, in places for the most part inaccessible or at any rate dangerous, was Ligusticum scoticum L. Here also were Coeloglossum viride (L.) Hartm., Vicia Cracca L. var. incana Thuill., and both species of Astragalus seen on the previous day. At the foot of the cliffs Asplenium marinum L., common along this coast, was seen. There is a great similarity in the flora of these O.R.S. cliffs and those at St Cyrus, though Vicia lutea L. and Allium carinatum L. do not occur at the former. However, A. Schoenoprasum L. occurs on a bank above the Arbroath pleasure-park where it has spread with great rapidity in recent years. The birds, especially the sea-birds, had been a most splendid sight all morning, and Mrs. Boyd Watt was in constant demand for identifications which she gave with a promptitude and precision that was the admiration of all.

After lunch a visit was paid to the premises of Messrs T. Buncle & Co. Ltd., since 1913 the printers of the Society's periodicals. was photographed outside the offices, and a tour was then made, under the guidance of Mr. Buncle himself, of the various departments of the business. Members saw, among other things, how type was prepared and set up, how printing was done for newspapers and publications such as those of the Society, how photographs were enlarged and many other aspects of this fascinating concern. Particular astonishment was expressed at the exceedingly complicated machinery for setting up type, and the extreme dexterity with which the skilled worker manipulated Afterwards Mr. and Mrs. Buncle were entertained to tea by the party, and very sincere thanks was expressed to them for their kindness during the afternoon; no trouble had been spared to make the visit as interesting and instructive as possible. As a final gesture, Mr. Buncle intimated that each member of the party would receive a copy of the photograph, which one may add is a very pleasing one.

After dinner the party reassembled in the Hotel to discuss the work already done.

The last day, July 10, began with a visit to Easthaven. Here there is a fine quantity of Rhinanthus major Ehrh. among a typical dune flora with Ammophila arenaria (L.) Link, Elymus arenarius L., Arrhenatherum tuberosum F. Schultz (which was differentiated in situ from A. elatius (L.) J. & C. Presl.), Festuca rubra L. var. arenaria Fries, and very fine Astragalus danicus Retz. On the sand of the shore a few plants of Atriplex laciniata L. were seen. The party then proceeded to the Sands of Barry, a place too well known to warrant any description, where the Coral-root Orchid was seen in some quantity. Juncus balticus Willd., Botrychium Lunaria (L.) Sw., Orchis latifolia L. sec. Pugsl., O. purpurella T. & T. A. Steph. were noted, and in a very

dry spot Rumex tenuifotius (Wallr.) Löve was found and later confirmed by Mr. Lousley.

After lunch, and in threatening weather, a visit was paid to the Dundee Corporation tipping ground, where ballast and all kinds of refuse are deposited, partly to reclaim the muddy shore of the Tay. Although rain now started, the party fanned out over the area, seeing Potentilla norvegica L., Sisymbrium orientale L., S. altissimum L., Artemisia Absinthium L., Polypogon monspeliensis (L.) Dest., Bromus madritensis L. (both grasses being confirmed by Mr. Hubbard), and Brussica monensis (L.) Huds., together with certain obvious garden outcasts such as Linaria purpurea (L.) Mill. The rain then became heavy, and most members sought shelter in the cars. Nothing daunted, however, Miss Duncan, Miss Morgan and Mr. R. A. Graham continued to search the area where ballast had been thrown. Miss Duncan indicated Cynosurus echinatus L., minute Silene anglica L., and Puccinellia distans (L.) Parl., which occurs here as a tip introduction; and Mr. Graham replied by finding Agrostis semiverticillata (Forsk.) C. Christ. (determined by Mr. Hubbard), and Galium parisiense L. The latter, a somewhat unexpected and interesting find, is often regarded as a variety of G. anglicum Huds., from which it differs in having bristly hairs on the fruit. Mr. Brenan, who confirmed the identification, has pointed out that in this case the Linnaean name is the earlier, so that, if one is a variety of the other, Galium anglicum should more correctly be regarded as a variety of G. parisiense. I am not aware of any previous record for the latter as a British plant.

The party then spent a useful hour in the Corstorphine herbarium, where, due to the kindness of Dr. Edith P. Smith, facilities were accorded for examination of whatever specimens were required. This fine herbarium is confined to specimens from Angus, and members were enabled to compare sheets with certain material gathered during the excursion.

Before dispersal the party had tea in Dundee. A most sincere vote of thanks was offered to Miss Duncan for her preparation and leadership of an excursion which had proved so pleasant, varied, interesting and instructive. Thanks were also expressed to Miss Campbell for her share in the work, particularly in respect of the visit to Messrs T. Buncle & Co. Ltd., which she had arranged. The party then dispersed, but several members were amused to find themselves together again at the Lawers Hotel on the following evening.

R. A. Graham.

## JULY 27th to 29th, 1951. READING

The 29 members and friends who attended this meeting will look back upon it as the perfect example of one during which varied and interesting habitats were visited, but in country so well known that little original work could be done. On the evening of Friday (July 27) we were the guests of Prof. T. M. Harris at the Botany Department of the University, when light refreshments were provided. Dr. E. V.

Watson explained the routes which would be followed on the succeeding days and the main features of the places we would visit. Later in the evening Dr. Hora showed a number of colour slides of fungi.

On Saturday morning the party was met at Sham Hill, below Remenham Lodge, v.-c. 22, Berks., by Miss K. H. Macaulay, who knows this area exceptionally well. The botanical treasure of the hill was Tetragonolobus (Lotus) maritimus (L.) Roth, known here for some years and found in comparative abundance. The only other addition to a normal chalk downland flora was Lotus tenuis Willd. A pleasant walk by the riverside at Henley Reach brought us to a small ditch with Myriophyllum verticillatum L., Hottonia palustris L., Pedicularis palustris L., Hydrocharis Morsus-ranae L., Orchis praetermissa Druce and Triglochin palustris L.

In the afternoon a visit was made to Bix Bottom, v.-c. 23, Oxford. This proved to be a good piece of beech woodland with Epipactis leptochila (Godf.) Godf. in some quantity. Dr. Young demonstrated its characters from the living plants. The wood also produced E. Helleborine (L.) Crantz, Monotropa Hypopitys L. and Lactuca muralis (L.) Gaertn. In scrubland at Maiden's Grove above Bix Bottom we found Hypericum montanum L., Herminium Monorchis (L.) R. Br. and Paris quadrifolia L. on an old wall; Ceterach officinarum DC, and Asplenium Ruta-muraria L., and in neighbouring arable fields Iberis amara L. and Linaria repens (L.) Mill. Some members, detached from the rest on the way to tea at Nettlebed, saw Coeloglossum viride (L.) Hartm. and an unusual form of Epipactis purpurata Sm. by the golf course at Nuffield, v.-c. 23. A visit was made in the evening to Bush Wood, near Nettlebed, v.-c. 23, to see a fine show of Pyrola minor L. A number of members met again in the late evening at the Botany Department to discuss the day's work.

Sunday was spent entirely in v.-c. 22, Berks. A short visit was first made to a pond on Wakefield Common. This has a most interesting flora including Hypericum Elodes L., Radiola Linoides Roth, Hydrocotyle vulgaris L., Littorella uniflora (L.) Aschers., Sparganium simplex Huds. and Scirpus fluitans L. The greater part of the morning was spent on Silchester Common where, apart from the normal heathland flora, great interest was found in the flora of a small hillside bog, the neighbourhood of which added Genista anglica L., Cuscuta epithymum (L.) L., Pedicularis sylvatica L., Narthecium ossifragum (L.) Huds., Orchis ericetorum (E. F. Linton) E. S. Marshall, Carex laevigata Sm. and Equisetum sylvaticum I. A short distance away was a marsh with a contrasting flora which included Ranunculus hederaccus L., Peplis Portula L. and Veronica scutellata L. var. villosa Schum.

In the early afternoon our attention was drawn by Dr. Steel to the unusual flora of the verges of the runways of Crookham aerodrome. It was surprising to see chalkhill species growing close to heath species which had colonised the waste spaces beyond the verge. Of particular interest were Ononis Natrix L., Linum bienne Mill. and Stachys recta

L. The rest of the afternoon was spent by the side of the Kennet-Avon Canal at Thatcham. Nothing of special interest was observed here, but an adjoining meadow had some quantity of *Juncus compressus* Jacq. and *Blysmus compressus* (L.) Link. After tea at Woolhampton the party dispersed in the early evening on Bucklebury Common.

The meeting was an unusual one as it had no leader, but our thanks are especially due to Dr. Watson who undertook so efficiently its organisation and to Mrs. A. M. Simmonds and Miss K. I. Butler who planned our routes and seemed to know so perfectly what we would wish to see. No small measure of the success of the week-end was due to members and friends who brought their cars and transported the rest. It should also be put on record that this was the first meeting of the society at which a transport account was used.

J. G. DONY.

# AUGUST 3rd to 11th, 1951. BARROW-IN-FURNESS Leader: G. Wilson

The object of the meeting was to explore an inadequately worked area on the fringe of the Lake District and to record species of critical groups.

The excursion was attended by thirty-three members of the Society together with four local naturalists as guests.

On the Friday evening the party gathered at the Hotel Imperial, Barrow, to discuss the programme and the purpose of the meeting.

## SATURDAY, 4TH AUGUST.

The party left Barrow by private coach for Greenodd, where they crossed the saltings and walked through Roudsea Wood. Tilia cordata Mill. and Lithospermum officinale L. were seen, the latter in abundance. A small quarry in the wood was visited to see Erinus alpinus L. and Allium Scorodoprasum L. The route then led along the east shore of the Leven estuary to the limestone cliffs of Capeshead where Sorbus rupicola (Syme) Hedl. and Crithmum maritimum L. were growing. A short distance away Adiantum Capillus-Veneris L. and masses of Potentilla verna L. were seen. A short walk brought the party to the Station Hotel at Cark for tea.

## SUNDAY, 5TH AUGUST.

The bus was halted on the outward journey for some of the party to see another station for Allium Scorodoprasum L. at Haverthwaite where Lysimachia terrestris (L.) B., S.P. was found on the river bank, At Flookburgh the party was joined by the members with private cars who ran a ferry service down the narrow lane to Humphrey Head. Lemna trisulca L. and Bidens tripartita L. were seen in a small swamp near the Head and Atropa Bella-donna L. was found in the woods nearby. Many interesting plants were seen on the limestone cliffs of the headland. These included Hippocrepis comosa L., Crithmum mari-

timum L., Helianthemum canum (L.) Baumg., Adiantum Capillus-Veneris L. and Veronica hybrida L. The leader had not seen the lady members in action before and the acrobatics performed by one of them in an endeavour to "touch" the Veronica still remains a vivid memory. Growing among the turf on the summit were Galium pumilum Murr., Asperula cynanchica L., Allium vineale L. and Helianthemum Chamaecistus (L.) Mill. var. tomentosum.

After tea at the Station Hotel, Cark, the party returned to Barrow by bus. Some members broke their journey to see Andromeda polifolia L. on Fish House Moss where Drosera longifolia L. was abundant.

## MONDAY, 6TH AUGUST.

After two days of glorious sunshine rain fell on the Monday morning. The party travelled by train to Coniston where they divided into two sections; one group climbing Coniston Old Man while the other explored the East shore of Coniston Lake.

Several interesting plants were seen along the shore including Thalictrum umbrosum Butcher, Circaea intermedia Ehrh., Ranunculus Flammula L. var. angustifolius Wallr., Serratula tinctoria L., Impatiens Noli-tangere L., Claytonia alsinoides Sims, Lobelia Dortmanna L., Littorella uniflora (L.) Aschers. and Isoetes lacustris I.

The Old Man party climbed by way of Copper Mines Valley to Levers Water. On the way Saxifraga stellaris L., S. hypnoides L. and S. aizoides L., Epilobium pedunculare A. Cunn., Thelypteris Phegopteris (L.) Slosson and Gymnocarpium Dryopteris (L.) Newn. were seen. From the tarn the party contoured across the hillside to Low Water and descended by footpath to Coniston. Both parties met at the Sun Hotel, Coniston, for an excellent tea, after which they returned to Barrow by train.

#### TUESDAY, 7TH AUGUST.

A small party braved the rain and went by service bus to Urswick Tarn during the morning. Ranunculus Lingua L., Rumex Hydrolapathum Huds. and Bidens tripartita L. were seen. The boat party spent most of their time extricating themselves from sargassos of Potamogeton pectinatus L.

In the afternoon a convoy of private cars ferried the party to Roanhead sand dunes and the adjoining Sandscale Haws. Pyrola rotundifolia L. var. bracteata Hook. & Arn., Epipactis Helleborine (L.) Crantz, E. palustris (L.) Crantz, Coeloglossum viride (L.) Hartm., Parnassia palustris L. var. condensata Travis & Wheld. and a large colony of Ophioglossum vulgatum L. were seen among the damper slacks, while the drier portions produced Euphorbia portlandica L. and E. paralias L., Radiola Linoides Roth, Centaurium littorale (D. Turner) Gilmour, Equisetum variegatum Schleich and Agropyron junceum (L.) Beauv.

#### WEDNESDAY, 8TH AUGUST.

The members travelled by train to Grange-over-Sands. The route led by way of Eggerslack Wood, where Ranunculus auricomus L.,

Clematis Vitalba L. and Melica nutans L. were noticed. Beyond the wood the party climbed to the top of Hampsfell. Arenaria verna L., Antennaria dioica (L.) Gaertn., Asperula cynanchica L., Erigeron acer L., and Sesleria were noticed among the turf, while among the limestone pavements Dryopteris Villarsii (Bell.) Woynar and Gymnocarpium Robertianum (Hoffm.) Newm. were seen.

After tea at Hazelmere Café a return was made by train.

## THURSDAY, 9TH AUGUST.

A coach drive along the beautiful Duddon Valley brought the party to Seathwaite in Dunnerdale. The majority of the party walked along the wooded banks of Duddon Gorge where there were masses of Oak and Beech ferns, Dryopteris Borreri Newm., Geranium sylvaticum L., Melampyrum pratense L. var. hians Druce and a single clump of Osmunda. The party made their way up the fellside to Seathwaite Tarn and thence down the track to Seathwaite for tea at Newfield Hotel. The bus was halted on the return trip for some of the members to paddle in search of Osmunda. The remainder were content to see Minulus moschatus Lindl.

#### FRIDAY, 10TH AUGUST.

The excursion to the Docks on Friday morning came as something of an anti-climax, since several members had already made unofficial visits to bring back aliens from the Corn Mill. However, armed with official permit and escorted by guide, the party were able to see growing Senecio squalidus L., Cichorium Intybus L., Sisymbrium orientale L., S altissimum L., Diplotaxis tenuifolia (L.) DC., Melilotus alba Medic., M. officinalis (L.) Pall., Coronilla varia L., Echium vulgare L. and Orobanche minor Sm.

In the afternoon the party visited Walney Island and saw Ranunculus Sardous Crantz, R. Drouetii F Schultz ex Godr., Eryngium maritimum L., Calystegia Soldanella (L.) R. Br., Radiola Linoides Roth and Vulpia membranacea (L.) Dum. among the dunes. In the turf just off the shore Dianthus Armeria L. was found, while on the pebble bank Mertensia maritima (L.) S. F. Gray and Crambe maritima L. were seen. Some of the party went down to the south end of Biggar Bank to see Geranium sanguineum L. var. lancastrense (Mill.) Druce which was still in flower in spite of the lateness of the season and the August Bank Holiday crowds. The var. prostratum (Cav.) Pers. of the Geranium was also present in association with Thalictrum marinum Druce and Rosa spinosissima L.

#### SATURDAY, 11TH AUGUST.

On the Saturday the two remaining members of the party (N.D.S. and G.W.) thoroughly explored Tarn Hows where Sparganium minimum (Hartm.) Fr., Carex lepidocarpa Tausch, C. vesicaria L., C. dioica L. and Isoetes were growing. Esthwaite and the West shore of Windermere near the Ferry were also visited. Impatiens parviflora DC., Spiraea salicifolia L., Agrimonia odorata Mill., Serratula tine-

toria L. and Lysimachia terrestris (L.) B. S. P. were all growing within a hundred yards of the Ferry.

I am very grateful to Mr. A. W. Westrup who compiled a list of more than 600 plants reported by members during the meeting.

It is intended to include the presumed new Vice-County records in a paper for *Watsonia*, entitled "Notes on the North Lancashire Flora" by G. Wilson.

G. WILSON.

#### NOTES FOR LEADERS' GUIDANCE

Leaders are reminded that they are responsible for the production of the Report of their Field Meeting. They may delegate this duty to a suitable person. The Report should contain:—

- 1. A list of members and guests attending
- 2. A summary of the proceedings
- 3. List, in the order of the British Plant List, of the more interesting plants observed, with localities. It may be preferable in some cases to give separate lists for separate localities
- 4. Presumed new Vice-County records should be indicated and the name of the finder given for each, and the whereabouts of the voucher specimen, as far as possible

## **EXHIBITION AND LECTURE MEETINGS, 1951**

## LECTURE MEETING IN CONJUNCTION WITH ANNUAL GENERAL MEETING

Arrangements were made for papers to be read and a botanical film to be shown before and after the Annual General Meeting of the Society on April 14, 1951, in the Rooms of the Linnean Society, Burlington House, London, from 10.30 a.m. to 12.30 p.m. and at 3.15 p.m. This innovation was greatly appreciated and was attended by over 80 members and guests.

The following were the papers read:-

PLANTS OF TIBET (Coloured films)—Dr. George Taylor

HERE AND THERE: A REVIEW OF HABITATS IN THE WESTERN HIGHLANDS AND WESTERN ALPS—Miss M. S. Campbell

SOME INVESTIGATIONS INTO THE BRITISH SPECIES OF SORBUS—Dr. E. F. Warburg

MASS COLLECTION AS A TAXONOMIC METHOD—Dr. J. Heslop Harrison

and, following the Annual General Meeting: --

"VICTORIA REGIA"—THE EMBLEM OF THE SOCIETY—J. E. Lousley

## EXHIBITION MEETING, 1951

An Exhibition Meeting was held in the Lecture Hall of the British Museum (Natural History), South Kensington, by kind permission of the Trustees, on Saturday, October 20, 1951, from 2.30 to 5.45 p.m. The attendance was a record one, comprising 166 members and 43 guests, a total of 209. Exhibits were arranged by 40 individuals and institutions and an account of these is given below. A feature of the exhibition was the number of plants added to the British Flora during the year including important new discoveries from Scotland, which were illustrated by photographs and specimens. It was arranged at a date which made it possible to include some fresh material.

The following is a list of the exhibits with notes supplied by the exhibitors.

#### 1. EXHIBITS OF INDIVIDUAL SPECIES

#### THE CARDAMINE PRATENSIS COMPLEX IN BRITAIN

"Cardamine pratensis" is an aggregate comprising at least four species in Britain. The provisional names for these are C. dentata Schultes (2n=32) of Southern England, C. fragilis (Dégl. ex Lloyd)

Bor. (chromosome number unknown) of South-west England, C. pratensis L. emend. (2n=56) of the lowland areas of Britain, and C. polemonioides Rouy (2n=64) of Northern Britain and mountainous areas. The species are morphologically well characterized, although the last two at any rate hybridize wherever they meet, and all have different geographical ranges. Increase in chromosome number can be correlated with a more northerly range, a greater tolerance of acid soils, and a reduction in stature, leaf-size (especially in the lamina of the upper leaflets) and style-length.

Herbarium material of the four species was exhibited.

D. E. ALLEN.

## A Possible Hybrid Between POLYGALA VULGARIS L. and P. CALCAREA F. Schultz.

A live plant, and pressed material, from a roadside bank between Tarrant Rushton and Tarrant Monkton, Dorset, were exhibited, together with pressed specimens of *P. vulgaris* and *P. calcarea* from Badbury Rings a few miles away. The presumed hybrid had the following indications of hybridity:—the shape of the leaves at the base of the stem is similar to that of *P. vulgaris*, but they were gathered into a loose rosette, approaching in this respect *P. calcarea*; the plant is sterile; the luxuriant development of the plant suggests hybrid vigour. There is a similar specimen in the Marshall Herbarium at Cambridge, collected at Cranham Common, Painswick, v.-c. 33, by H. J. Riddelsdell as *Polygala* ——? In the notes for *B.E.O. Report* for 1912, p. 235, attached, authors mention the absence of fruit as preventing satisfactory identification.

P. F. Yeo.

## RUBUS VILLICAULIS KOEHL. AND LTS ALLIES, THEIR PLACE OF ORIGIN AND DISTRIBUTION

The following is a revised list of Rubus villicaulis Koehl, and its allies found in Great Britain and Ireland.

- R. villicaulis Koehl. (castrensis Wolley-Dod). England, Ireland, Wales, Jersey.
  R. Langet G. Jensen ex F. & G. (rectangulatus Maass; Riddelsdelli Rilst.).
  South England, Lines., Forfar.
- R. septentrionalis W. Wats. (confinis Lindeb.). North Scotland.
- R insularis Aresch, England, Scotland, Ireland, Wales.
- R. broënsis W. Wats. (villicaulis f. silvestris F. & G.: holerythros Rog.). Surrey, Berks.
- R. atrocaults P. J. Muell. South England.
- R. Favonii W. Wats. (pyramidalis Rog. p.p.). South England, West Scotland.
- R. incurvatus Bab. England, Scotland, Ireland, Wales.
- R. macroacanthos Weihe & Nees. Norfolk.
- R. iricus Rog, Ireland.
- R. stanneus Bart, & Ridd. South-west England, Surrey.

By crossing R, gratus  $\circ$  with R, bifrons  $\circ$  Focke obtained a fertile bramble closely resembling R, villicarlis. He knew of no place in Germany where R, gratus and R, bifrons were found together, or where

either was found with R. villicaulis. All three species are rather frequent in Devon and Cornwall, and the distribution area of R. villicaulis overlaps that of its presumed descendants in Britain, whilst on the Continent it mostly excludes them. They are not found, either R. villicaulis or the descendants, in France or Belgium. It looks therefore as if R. villicaulis arose and evolved in or near south-west England.

The lower leaves of R. villicaulis resemble those of R. gratus, the upper ones and those on the branches, those of R. bifrons. Such a sequence is often to be found in plants of hybrid origin.

W. C. R. WATSON.

#### FORMS OF SIUM LATIFOLIUM L.

Two contrasting specimens of Sium latifolium from coastal dykes in North Lincolnshire, v.-c. 54, were shown:—

Leaflets very broad, up to 200 mm. in width, from Theddlethorpe Road. Leaflets not more than 120 mm. in width, from Saltfleetby St. Peter.

Both forms are well distributed, the form with narrow leaflets also being found inland.

## PAINTINGS OF NORTH LINCOLNSHIRE PLANTS BY THE LATE DR. J. T. RURGESS.

A selection of 450 paintings, 6½ × 4¾ ins., of North Lincolnshire plants by the late Dr. J. T. Burgess of Spilshy, 1879-1910, were shown. These were used by the Rev. E. A. Woodruffe Peacock for records in his 'Check-List of Lincolnshire Plants' of 1909. A list of some of the rarer ones is given in *The Naturalist*, 1893.

Miss E. J. GIBBONS.

#### BOLIVIAN GENTIANS.

The exhibit consisted of 18 sheets from a collection of Bolivian plants made for the British Museum (Natural History) by the exhibitor. Specimens named included Gentiana prostrata, G. sedifolia, G. Kuntzei, G. inaequicalyx, G. gynophora, G. longipes, G. erythrochrysea and G. primuloides.

Miss W. M. A. BROOKE.

#### VARIATION IN SCHOENUS NIGRICANS L.

Samples of Schoemus nigricans L. were collected from various localities in the British Isles, and various characters were measured. The figures obtained were analysed statistically and displayed as a series of graphs. These showed a discontinuous range of variation in the height of the flowering shoot, apparently related to environment. The samples from Irish and Scottish blanket bog had much shorter flowering shoots than those from Irish and English fens and southern English valley bogs. A similar range of variation was apparent in the size of the outer bract of the flowering head, but there was no discontinuity. The num-

ber of spikelets per flowering head varied, but the variation was not related to the same environmental factors. The shape of the bract scale was almost constant.

This variation may be either mainly genotypic, i.e. an ecocline, or mainly phenotypic, in which case *Schoenus* is a plant sensitive to its environment and a good indicator, by its growth, of environmental conditions. It will require transplant experiments to see which of these two hypotheses is correct.

P. J. NEWBOULD.

## DRYOPTERIS BORRERI NEWM.

- =D. Filix-mas var. paleacea Moore.
- =D. Filix-mas var. Rorreri Newm.

This exhibit showed the main differences between *Dryopteris Filix-mas* (L.) Schott, sens. strict. emend., and *Dryopteris Borreri* Newm. An accompanying map showed the vice-comital distribution of *D. Borreri* Newm. in the British Isles, as far as is known at present.

Any records for v.-cs. 15, 21, 26, 27, 28, 29, 43, 56, 74, 79, 81, 82, 84, 91, 93, 102, 103, 107, 109, 112; H1, H3, H4, H5, H6, H8, H10, H12, H13, H14, H15, H17, H18, H19, H21, H24, H25, H26, H29, H30, H31, H32, H34, H36, H37, will be most gratefully received.

Miss J. P. Pugh.

## CYSTOPTERIS DICKIEANA SIM.

A living plant was exhibited. There is some doubt whether *C. Dickieana* is a form of *C. fragilis* or a distinct species. It is named after Dr. Dickie, a Professor of Botany at Aberdeen, because he first distributed it. He states in his *Flora* of 1860 that it was known earlier as growing in a cave south of Aberdeen harbour. The fern has not been found as a wild plant in recent years in the British Isles.

P. GREENFIELD.

#### 2. EXHIBITS OF VARIOUS SPROTES

#### SOME NEW BRITISH ALCHEMILLA SPECIES

Living and dried material of Alchemilla subcrenata Bus., recently discovered in Teesdale, was shown. This is a common European species, for which, however, previous records in the British literature were false identifications. Also shown were sheets of an 'acutidens'-type Alchemilla from the Ben Lawers range, which is distinct from A. Wichurae (Bus.) Stef.; it seems doubtful whether this plant is identical with any described Scandinavian (or alpine) species. A sheet of A. obtusa Bus. was also shown, collected in September 1951 at the only known British locality for this species. It was suggested that the similarity of this species to the common A. glabra Neyg. may well mean that it has been overlooked in other places.

S. M. WALTERS.

#### SESLERIA IN N.W. EUROPE.

Living plants were exhibited of the grass Sesleria, which consists of two distinct species in Europe (cf. Löve, A., 1950, Bot. Notiser, 1950, 27-30). The true S. caerulea (L.) Ard. (which can be distinguished readily by the easily-removed waxy covering to the upper leaf surface) is Scandinavian and E. European; our plant, which occurs also in Iceland and W. and C. Europe, is S. varia (Jacq.) Wettst. The two species differ remarkably in the appearance of the upper leaf epidermis, including the stomata; a slide of this was exhibited.

S. M. WALTERS.

## LATTLE-KNOWN HAWKWEEDS

The following eight species of Hawkweeds were exhibited:—H. macrocarpum Pugsl., H. pseudo-repandum Pugsl., H. fratrum Pugsl., H. oxyodus W. R. Lint., H. pollinarioides Pugsl., H. caliginosum (Dahlst.) Roffey, H. dipteroides Dahlst. and H. subquercetorum Pugsl. They have the following four points in common:—all except H. caliginosum (Dahlst.) Roffey, are endemic; they are all confined to a restricted area; they are clearly separable from their allies; they were known only from the original collections until rediscovered in the past two years by C. D. Pigott, J. E. Raven, and C. West. All the abovementioned species were found growing in their classic localities as cited by H. W. Pugsley in his Prodromus of the British Hieracia, although sometimes sparingly. H. subquercetorum Pugsl. was found in an additional locality near York by Prof. C. E. Raven.

P. D. Selli.

#### POA ANNUA L. AND HERACLEUM SPHONDYLIUM

Live plants of an artificial hybrid between P. annua L.  $\circ$  and P. infirma H.B.K.  $\circ$  were shown, together with a photograph showing the behaviour of the chromosomes of the hybrid at meiosis.

Specimens of subspecies of  $Heracleum\ Sphondylium\ I_L$  were exhibited.

T. G. TUTIN.

#### Some interesting British Grasses

The exhibit included sheets and detailed illustrations of two British grasses, *Phleum commutatum* Gaud. and *Sesleria varia* (Jacq.) Wettst., and two related species, *P. alpinum* L. and *S. caerulea* (L.) Ard. emend. Wettst., with which they have been confused by earlier authors. The differences between the above-mentioned species of *Phleum* have been pointed out by Tutin (*Watsonia*, 1 (4), 226-7), and those of *Sesleria* by Walters (see above). In addition a specimen of an American species of *Vulpia* (*V. megalura* (Nutt.) Rydb.), recently collected by Mrs. B. Welch in W. Kent (Hoo), was shown (for a record from W. Norfolk see *B.H.C.* 1946-47 Rep., 13, 375: 1948).

A. MELDERIS.

#### Hybrid Vigour in ASPLENIUM ADIANTUM-NIGRUM L.

Live plants of Asplenium Adiantum-nigrum L. ssp. Adiantum-nigrum, A. Adiantum-nigrum L. ssp. onopteris (L.) Heufi., and their artificial hybrid, were exhibited. The three ferns were the same age (two years from fertilization), but the hybrid showed immense 'hybrid vigour', was very much larger than the parent species, and was partially sterile.

Ssp. Adiantum-nigrum is a tetraploid, with n=72, and this plant was grown from spores collected in Cornwall, while ssp. onopteris is a diploid, with n=36, and these spores came from Madeira. Photographs of meiosis in the spore mother-cells of the triploid showed about 36 bivalents and 36 univalents at metaphase, and lagging chromosomes at anaphase. The pairing of the chromosomes at metaphase suggests a close relationship between the two Aspleniums, and it seems likely that ssp. onopteris is one of the parents of the widespread tetraploid ssp. Adiantum-nigrum.

Miss E. W. DAVIES.

#### CAREX DEMISSA HORNEM, AND CAREX HYBRIDS

Carex demissa Hornom. seems to hybridize with C. flava L., C. lepidocarpa Tausch and C. serotina Mérat whenever it is found with or in close proximity to these species.

Herbarium specimens were exhibited as follows:—

Carex demissa Hornem.. C. flara L. and various hybrid and intermediate forms from Roudsea Wood, Haverthwaite, Lancs.

Carex demissa Hornem., C. serotina Mérat var. cyperoides Marss. and several hybrid forms from Shapwick peat moor, Somerset.

In each locality the Carex demissa and the intermediate forms were more abundant than the C. flava and C. serotina respectively, which were rare, and it appeared that the latter two species were being gradually lost through hybridization with C. demissa.

Miss E. W. DAVIES.

#### POLYPLOIDY IN PRIMULA FARINOSA L.

A tetraploid plant of *Primula farinosa* from the Baltic Island of Gotland was exhibited together with a diploid British plant from Teesdale, Durham. Photographs of meiosis in the pollen mother cells were shown in each case. In the tetraploid n=18 the chromosomes are considerably larger than those of the diploid, where n=9.

The plants seem quite distinct morphologically, the tetraploid having rather elongated spathulate leaves with very few teeth, while those of the diploid are broader, more rounded and distinctly toothed.

A herbarium specimen of a plant from Malham, Yorks., which showed striking similarity to the Gotland tetraploid, was also exhibited. I

should be glad to see unusual forms of Primula farinosa at any time, if people would be kind enough to send me plants.

It is hoped to publish more detailed accounts elsewhere.

Miss E. W. DAVIES.

#### PLANTS OF SUSSEX

This exhibit comprised 40 herbarium sheets of plants locally frequent in Sussex but rare or absent in the surrounding counties. These included Oxycoccus palustris Pers. from West Chiltington, Pyrola rotundifolia L. from Ashdown Forest, and Convingia orientalis (L.) Dum. from Eastbourne.

R. A. BONITACE.

#### THE DISTRIBUTION OF SPECIES ON BOMBED SITES IN HULL

This exhibit included four maps, each showing the distribution of one of the following species:—Senecio squalidus L., Senecio viscosus L., Sisymbrium orientale L. and Sisymbrium altissimum L. on Hull bombed sites, examined during the summer of 1950. Herbarium sheets of these plants were also exhibited. The maps were prepared by photographing a plan of Hull; scale  $5\frac{1}{4}$  inches = 1 mile. In the case of each species map, sites on which the species concerned was found were marked in red. The position of other sites examined was shown in white, some two hundred and fifty sites being investigated.

Miss F. E. CRACKLES.

#### SENECIO × LONDINENSIS LOUSLEY.

A specimen of Senecio  $\times$  londinensis Lousley (Senecio viscosus L.  $\times$  S. squalidus L.), found on a Hull bombed site, was also exhibited together with drawings to show how the characters of the hybrid differed from those of the parent plants.

Miss F. E. Crackles.

## TWENTY SPECIMENS OF WOOL ALIENS (FRESH MATERIAL)

These were collected in Bedfordshire. They were mostly of Australian origin and had been brought to Britain as seeds or fruits in wool. Some of these foreign plants are now locally common in districts where 'shoddy', in the form of waste from woollen mills, is used as a valued manure. Most of them are very sensitive to frost and unlikely to persist as weeds.

J. G. DONY AND J. E. LOUSLEY.

## PLANT NAMES (FRESH MATERIAL)

Over 60 species were exhibited with labels indicating the derivation and meaning of the names, especially those from Greek and Anglo-Saxon.

D. M. HEATH.

BRITISH PLANT LIST, 1908, ANNOTATED BY F. A. LEES

This copy of the first edition of the British Plant List was given to F. A. Lees, the Yorkshire botanist, by G. C. Druce (the author) in 1909. It was heavily annotated by Lees and a number of his notes are of considerable interest. They have been cited in our Reports in connection with the rediscovery of Juncus alpinus Vill. in Teesdale (B.E.C. 1930 Rep., 9, 254, 281-2, 372-3 (1931), and Interim Report dated October 1930) and Euphrasia salisburgensis Hoppe, which has not yet been refound in Craven (loc. cit., 364).

The history of this copy of the *List* has been recited in our publications (e.g. loc. cit., 254). From the inscriptions at the beginning and end of the book it appears that it was purchased by C. E. Salmon with 'a good many of Arnold Lees' books'—probably on the death of Lees in 1921. In 1924 Salmon gave it to Arthur Bennett and on the death of Bennett in May 1929 it again became Salmon's property. He sent it to Mrs. Arber as a Christmas present that year and she gave it as a wedding present to Mrs. Foggitt in 1930. It was re-autographed by Dr Druce on August 7, 1930. In January 1940 Mrs. Foggitt sent it to me as a wedding present.

Many of the notes are mere references to publications made by Lees to keep his copy of the *List* up-to-date, but there are also many interesting original comments and records, not all of which have been published. These include numerous records of aliens and especially of those introduced by the Yorkshire wool and tanning industries.

J. E. LOUSLEY.

#### PLANTS FROM SURREY RUBBISH TYPS

These included Stachys annua (L.) L. from a rubble tip at Kingswood, Camelina sativa (L.) Crantz, Erweastrum gallicum (Willd.) O. E. Schulz., Coriandrum sativum L., Datura Stramonium L., Amaranthus chlorostachys Willd., Chenopodium glaucum L., Cannabis sativa L., Echinochloa Crus-galli (L.) Beauv. and Setaria viridis (L.) Beauv. from a cinder tip near the Redhill sewage works.

Miss B. M. C. Morgan.

#### HERBARIUM SPECIMENS CONNECTED WITH PAPERS IN WATSONIA

The exhibit illustrated aspects of the present phase of rapidly increasing knowledge of our flora. It included a selection of specimens from the herbarium of the Department of Botany of the British Museum (Natural History) connected with papers recently published in Watsonia, some being types of new species described therein. The following were shown:—

Rubus Watsonii W. H. Mills; see Mills, Watsonia, 1 (3), 135; author's topotype from v.-c. 31, Hunts.

Myriophyllum verrucosum Lindley; see Brenan & Chapple, ibid., 1 (2), 63; Australian alien collected by Brenan and Chapple from v.-c. 30, Beds.

- Mentha × Smithiana R. Graham var. angustifolia R. Graham; see Graham, ibid., 89; type specimen from v.-c. 3, S. Devon, in A. L. Still's Herbarium.
- Scutellaria hastifolia I..; see Pigott, ibid., 2 (1), 18; original specimen collected by Dr. A. S. Watt from v.-c. 26, W. Norfolk.
- Orchis cruenta O. F. Muell.; see J. Heslop-Harrison, ibid., 1 (6), 366; collected by Dr. J. Heslop-Harrison from v.-c. H.26, E. Mayo.
- Epipactis cambrensis C. Thomas; see Thomas, ibid., 1 (5), 284; type specimen from v.-c. 41, Glamorgan.
- Epipactis pendula C. Thomas; see Young, ibid., 1 (2), 102; type specimen from v.-c. 59, S. Lancs.
- Epipactis vectensis (T. & T. A. Stephenson) Brooke & Rose; see Young,
  ibid., 108; type specimen of E. leptochila Godf. var. vectensis T.
  & T. A. Steph. from v.-c. 10, Isle of Wight.
- Milium scabrum Rich.; see Tutin, ibid., 1 (6), 345; collected by Prof. T. G. Tutin from v.-c. S., Guernsey.
- Equisetum ramosissimum Desf.; see Alston, ibid., 1 (3), 149; collected by H. K. Airy Shaw from v.-c. 53, S. Lines.

BRITISH MUSEUM (NAT. HIST.).

#### HERBARIUM SPECIMENS

Twelve sheets were exhibited, together with others to be looked through individually. Several species collected on B.S.B.I. Field Meetings were shown, including:—Aceras anthropophorum (L.) Sm. and Rosa spinosissima L. from Halling Down and Dactylis Aschersoniana Graebn. (D. polygama Horvat.) from Cliveden.

Twelve representative sheets from the herbarium of D. G. Smith, aged 12 years, the winner of the junior collection competition of the Hampton Grammar School Natural History Society.

P. R. NORMAN.

#### AUTUMNAL FORMS OF SOME UNCOMMON BRITISH SPECIES

Pot-grown specimens of the following species were shown:—Althaea hirsuta, Coronilla glauca (in flower), Rumex sanguineus, Mibora minima and Echium plantagineum.

J. OUNSTED.

#### HERBARIUM SPECIMENS

The following were shown: --

Herbarium specimens of *Homogyne ulpina* (L.) Cass. from Angus, Scotland, together with a map showing the European distribution of the plant. A short paper on this has been accepted for *Watsonia*.

Herbarium specimens and photographs of Acanthus mollis L. from St. Agnes, Isles of Scilly. A short paper on this is in preparation.

Herbarium specimens and photographs of Datura Stramonium I., from St. Agnes, Isles of Scilly, 1950. This plant was growing in pro-

fusion and flowering well in one part of a bulb-field between Highertown and Middletown, St. Agnes, in July 1950. The ground was afterwards dug over. The plant was first seen by Mr. P. J. Wanstall and myself in July 1948, when it was in fruit. The seeds were no doubt introduced with some horticultural product.

B. W. RIBBONS.

#### BOMBED-SITE RECORDS FROM CRIPPLEGATE

A note-book giving a list of the plants noted during the years 1947-1951 inclusive. This included a few sketch maps, and a map of the area described; also a list of interesting bombed-site plants observed in North London in 1945-51, chiefly in the Wood Green area.

Miss M. Scholey.

HERBARIUM SPECIMENS OF WYE VALLEY PLANTS. Mrs. K. LE SUBUR.

#### OXALIS IN BRITAIN

Specimens of all those species which are definitely known to occur in this country were exhibited, viz., O. valdiviensis Barn., corniculata L., stricta L. sec. Wiegand (Dillenii Jacq.), europaea Jord. (stricta L., B.P.L.), earnosa Mol., articulata Savign. var. hirsuta Prog. (floribunda Lehm.), Acetosella L., Martiana Zucc. (corymbosa DC.), (?) debilis H.B. & K., latifolia H.B. & K., tetraphylla Cav., Pes-caprae L. (cernua Thunb.) and O. incarnata L. Of these, only O. Acetosella is native, and all the others were probably introduced horticulturally. O. violacea L. and O. semiloba Sond. appear to have been recorded in error. The taxonomy of the genus is very difficult, and the list in the B.P.L. badly needs revision.

D. P. Young.

## EPIPACTIS VECTENSIS (T. & T. A. Steph.) Brooke & Rose, sensu lato

An up-to-date map of the distribution of this plant was exhibited. It included the recently rediscovered *locus classicus* in the Isle of Wight, and the colony on Sandscale dunes (segregate *E. pendula* C. Thomas) found by the B.S.B.I. excursion this year.

D. P. Young.

### WORK ON THE REVISION OF THE FLORA OF WARWICKSHIRE

The exhibit was mainly concerned with demonstrating the methods being used in the revision.

The present county flora (J. E. Bagnall, Flora of Warwickshire) was published in 1891 and is of the traditional "Catalogue" type. It is intended in this work to pay more attention to detail, distribution and ecology. The following were the main items exhibited:—

1. Recorders' Cards. One copy is given to each field worker to show the information needed with each record.

- 2. Location sheets (one for each species, subspecies or variety). On to these are entered records received from the field worker.
- 3. Outline maps of the County (one for each species, subspecies or variety). These are printed on tracing paper with 1000-metre National Grid Squares. Each record is located on the appropriate map by a dot.
- 4. Flora Bulletin. By means of this helpers are kept informed of developments and special requirements.
- 5. The Vice-county Map showing the changes since Watson laid down the Vice-County boundaries

The exhibits show the advantages of the method in comprehensiveness, accuracy and simplicity of recording and interpretation.

Samples were shown of records so far received and entered on location sheets and outline maps.

P. S. GREEN, R. C. READETT.

#### ANCHUSA SEMPERVIRENS L.

A photograph taken by the exhibitor of a garden site in a bombed area in Edgbaston, Birmingham. It is a long, narrow space bordered with holly hedges and has all the appearance of an old lane or service track. It lacks the ordinary bomb-site flora, but has several very unusual plants, including Anchusa sempervirens. H. C. Watson in his New Botanists' Guide (1835), 185, has:—"Anchusa sempervirens at Edgbaston near Birmingham, Midl. Fl. Purton." Purton's Midland Flora was published in 1817. It is interesting to be able to confirm this record after more than 130 years, and from a built-up area.

C. THOMAS.

#### PINGUIOULA VULGARIS L.

Specimens in a dormant stage. A pseudo-bulb of a rich green colour forms at the centre of the dead rosette of leaves, to survive the dry summer and storms of winter.

Photograph of plant in situ with large gnats and ant dead on leaves suggests that the secretion of the leaves is not merely adhesive, by which minute midges may be caught, but toxic or poisonous.

C. THOMAS.

#### 3. MAPS

Maps Showing the Distribution of the British Species of Thymus

Three maps, drawn up on the Scandinavian "point" system, showing the distribution of Thymus Serpyllum L., T. Drucei Ronn. emend. Jalas and T. pulegioides L. in the British Isles, were exhibited. The maps were compiled wholly from localities derived from herbarium material. Each locality, represented by a circular dot (equivalent to five kilometres in diameter), was plotted by means of the National Grid on to a base map of scale 1:2,000,000. Attention was drawn both to the advantages gained by this method and to its limitations, especi-

ally in the case of a common species (T. Drucei). Various features shown in the distribution of the three species, many of which would be obscured by the usual British "vice-county" method, were pointed out. It was interesting to note that no great extension of the range of the rarest species (T. Serpyllum) was indicated.

C. D. PIGOIT.

#### 4. Miscellaneous

SOME FRENCH BOTANICAL WORKS.

Mrs. A. N. Gibby.

## 5. Photographs

#### PHOTOGRAPHS OF SOME BRITISH VIOLA SPECIES

The series exhibited included most of the generally recognised British species of the section *Nomimium*, as well as two examples of *V. lutea* Huds.

#### PHOTOGRAPHS OF ACTAEA SPICATA L. IN BRITAIN AND SWEDEN

This species is probably best known in Britain growing in the crevices of the Carboniferous Limestone "pavements". This type of habitat was illustrated by a photograph taken at Malham, Yorks. A more typical Continental habitat was shown in the second photograph, where Actaea formed a part of the field layer in the rich spruce forest on Omberg, Sweden. Here it was associated with a woodland flora, including, inter alia, Acer platanoides L., Anemone Hepatica L., Anemorosa L., A. ranunculoides L., Dentaria bulbifera L., Hieracium sp., Lonicera Xylosteum L., Oxalis Acetosella L., Paris quadrifolia L., Sorbus aucuparia L. and Viola sp. Maps showing the distribution of Actaea spicata in Britain and Scandinavia were also exhibited.

M. C. F. PROCTOR.

#### PHOTOGRAPHS OF SOME RARE SCOTTISH PLANTS

A series of enlarged photographs was shown of:—Diapensia lapponica L. in Inverness-shire, accompanied by a specimen of Mr. C. F. Tebbutt's original gathering from Herb. Kew; Koenigia islandica L. in typical sites in the Isle of Skye (see Watsonia, 2, 188); Roegneria Doniana (F. B. White) Meld. in Perthshire and West Sutherland (see Watsonia, 2, 180, 186), and certain other rare Scottish species.

J. E. RAVEN.

#### PHOTOGRAPHS OF VEGETATION IN SOUTHERN FRANCE

The photographs, taken in May to June 1951, consisted of a series taken on the north shore of the Etang de Berre, Bouches du Rhone, showing contrast of native shrub and semi-cultivated vegetation, where olive and almond had been introduced. Also views of the Basses Alpes,

principally in the Verdon valley and Allos district, showing typically continental habitats, where species occurring in Britain are associated with continental species.

Miss M. S. Campbell.

#### 6. Paintings

#### DRAWINGS OF GLADIOLUS SPECIES

A collection of coloured drawings of Gladiolus species made in the Belgian Congo.

Mrs. B. H. S. Russell.

### Water-Colour Drawings of Mosses

Among these were drawings of Fissidens bryoides Hedw. with capsule and male inflorescence; Pleuridium subulatum Rabenh., showing spores containing oil globules, greatly magnified; also the liverwort Lophocolea heterophylla (Schrad.) Dum. All were found in a damp part of Sherrardswood, Welwyn Garden City, where trees had recently been cleared and dense undergrowth had arisen.

Miss H. D. GARSIDE.

#### TWELVE PAINTED PLATES OF PLANTS

These plates are part of a series of Comparative Figures of British Flowers, being paintings prepared by the exhibitor. Plates numbered 17 Hypericum, 28 and 29 Rubus, 32 Saxifraga, 37-9 part of Umbelliferae, 48 Carduus and Cirsium, 51 and 52 Hieracium, 54 Campanulaceae, 55 Ericaceue, containing in all 138 figures, were shown.

W. KEBLE MARTIN.

FLOWER DRAWINGS.

Miss M. Knox.

#### WATER-COLOURS

Twelve water-colours of common plants by Miss P. Woodland.

GLASGOW AND ANDERSONIAN NATURAL HISTORY
AND MICROSCOPICAL SOCIETY.

#### CONFERENCE, 1952

A Conference under the title of *The Changing Flora of Britain* was held on Friday and Saturday, April 4th and 5th, 1952, in the Lecture Room, Royal Horticultural Society's New Hall, Greycoat Street, S.W.1. It was followed by a Field Meeting on Sunday, April 6, to study the status and distribution of *Thiaspi alliaceum* and other early flowering species. A report of the proceedings will appear in *Year Book*, 1953, and the papers read at the Conference will be published in a separate volume of which a notice will be sent to members at a later date.

#### NOTICES TO MEMBERS

## ENQUIRIES ABOUT MEMBERSHIP

Intending applicants for membership contemplating applying for membership of the Society are asked to write to the Honorary Assistant Secretary, Mr. W. R. Price, 64 Elsworthy Road, London, N.W.3, who will supply full information and the necessary Form of Application for Membership.

## \*SUBSCRIPTIONS

The present rate of subscription is One Guinea per annum for Ordinary Members, 10s 6d for Junior Members and 10s 6d for Family Members, and the Society's year runs from January 1st to December 31st.

Subscriptions fall due on January 1st each year and should be paid to the Hon. Treasurer, Mr. E. L. Swann, 282 Wootton Road, King's Lynn, Norfolk.

Members are reminded that by paying their subscriptions under a Deed of Covenant they can augment the Society's income without additional cost to themselves. While the standard rate of income tax remains at 9s 6d in the £, the total value of a subscription of one guinea paid to the Society under this arrangement is £2, since the Society is in a position to recover tax amounting to 19s. The Council hope that as many members as possible will assist us in this way, and the Hon. Treasurer will be pleased to supply full information and the necessary form.

#### EXHIBITION MEETING, 1952

An Exhibition Meeting is being arranged for Saturday, November 29, in the Lecture Hall of the British Museum (Natural History), Cromwell Road, London, S.W.7, by kind permission of the Trustees. Details will be circulated to members in the autumn. It is expected that it will be possible to provide improved facilities for the display of exhibits, and exhibitors may like to have early notice that they will be asked to assist by supplying precise particulars in the autumn of the amount and nature of the space required.

#### THREATS TO BRITISH FLORA

Members are urged to report to the Hon. General Secretary any threats to the British flora. The Council has appointed a Conservation Committee to deal with such matters and every effort will be made "to promote in every way possible the conservation of the British flora".

#### PUBLICATIONS

A list of the Society's publications available for sale will be found at the end of the Year Book. They may be ordered from Mr. J. H. Burnett, University Dept. of Botany, South Parks Road, Oxford.

## WATSONIA

Price to non-members 7s 6d per part. To be obtained from Mr. J. H. Burnett, University Dept. of Botany, South Parks Road, Oxford.

Arrangements have now been made with our printers for the provision of a standard binding case for *Watsonia*, Volume I, and for binding members' own parts. The case is in blue buckram with gold lettering on the spine and blind tooling on spine and both boards.

The binding case is available for 4s post-free. Alternatively, members may send their own six parts of Watsonia, Volume I, together with title-page and contents list issued with Part VI, which will be bound in the standard case, at a cost of 12s post free, and returned to them. All Orders and Parts should be sent to Messrs. T. Buncle & Co. Ltd., Market Place, Arbroath, Angus, and cash should be enclosed. Reasonable time must be allowed for binding.

#### YEAR BOOK

Price to non-members 7s 6d. To be obtained from Mr. J. H. Burnett, as above.

#### INSTRUCTIONS TO CONTRIBUTORS TO WATSONIA

#### PAPERS

Papers are invited both from members of the Society and others. They should have a bearing on the taxonomy, distribution or biology of British Vascular Plants or Charophytes. Papers should be typed, but clearly written MSS, can be accepted. They should be double-spaced and written or typed on one side of the paper only. The form adopted in Watsonia should be used for citations and references, e.g. Spragum, T. A., 1952, The British forms of Valeriana officinalis, Watsonia, 2, 145-147. Full references should be put at the end, except where special reasons exist (e.g. the citation of place of publication of a plant name) or in very short papers. Illustrations, which may take the form of line drawings or photographs, will be considered for publication. Twenty-five separates of each paper are given free to the author, and further copies may be obtained on payment; requests for extra copies should be made when proofs are returned. Papers should be sent to the Editor, Dr. E. F. Warburg (address as above).

#### PLANT RECORDS

Records are for the year previous to publication when no date is given.

The following signs are used:-

- § before the B.P.L. number: to indicate that the paragraph contains information necessitating a correction in an annotated copy of the Comital Flora.
- † before the B.P.L. number: to indicate that the plant is not a native species in the British Isles.
- the before the record: to indicate a native species which is not native in the locality recorded.
- \* before the record: to indicate new vice-county records, not published previously to the issue of Watsonia.
- ‡ before the record: to indicate records additional to an annotated copy of Comital Flora, published previously to the present issue.
- [] enclosing a record: to indicate doubt as to the validity of the record, either of identification or locality.

It will be useful if, in future, National Grid Co-ordinates, made as accurate as is thought advisable, are added to all records.

Records should be sent, if possible not later than the end of the year to which they belong, either to the Editor, Dr. E. F. Warburg, or to Mr. E. C. Wallace, 2 Strathearn Road, Sutton, Surrey.

Records which are known to be of local interest only should not be sent. Should there be doubt on this point it is better to send the record. The appropriate County Flora should be consulted in this respect. Attention should be given to recording critical plants. In some County Floras these are not adequately recorded. If the plant belongs to a critical group, the name of the expert by whom it was determined must be given: if the plant has not been named by an expert, a specimen must be sent for determination. Records in critical groups will not be published unless this procedure has been followed. The importance of either stating where the herbarium specimen is to be seen, or of sending the specimen with the record, cannot be overemphasised. Records without vouchers may not be accepted.

The following instructions as to the method of drawing up records should be carefully noted.

Use  $5 \times 3$  inch cards and type when possible. Room should be left at the top and left hand side of the card, and between the lines, for any editorial correction that may be necessary: some cards have been received so closely compressed at the top of the otherwise empty card that editing involved re-writing. But the lightening of work deserves the expression of thanks to all who have assisted by sending in cards completed as requested in the past, and perhaps the few who did not will now follow suit.

N.B.—Do not use capitals (i.e. write, do not print) unless you make absolutely sure from the printed Report that you use them rightly—i.e. for the plant name but not for the authority, and for the names of the finder, recorder, and determiner when the record is a new one but not when it is taken from some publication. It is much more difficult to remove capitals wrongly used than to double-underline writing as in-

struction to the printer to use capitals: usually this cannot be done and the card has to be re-written.

In dealing with records from parts of vice-counties which have been transferred from one county to another since H. C. Watson's time, the form "20, [Beds.]" will be used, which indicates that the locality is now in Bedfordshire but belongs to vice-county 20, as it was in Hertfordshire when the vice-county boundaries were fixed by Watson.

When the record concerns an area dealt with by one of the standard County Floras, contributors, when they can, should indicate in () the number or letter of the subdivision of the County used in the Flora; this not only is of help to the Editors but will be of assistance to future revisers of such Local Floras.

When, for some reason, the name following the vice-county number is not the name of the vice-county, as "55, (Rutland)," the name is placed in ().

194/10m. Rosa dumetorum Thuill.

Var. HEMITRICHA (Rip.) W.-Dod.

Herb. Brit. Mus.

35, Monm.; banks of R. Wye, between Hadnock Quarries and Symond's Yat, 1948, R. Lewis, det. R. Melville.

3.9.1943. 13.6.1943. Herb. R. Lewis, No. 564.

Passed by Mr. Wade.

#### IRISH PLANT RECORDS AND RECORDERS

The Council is anxious to make the registration of new or interesting Irish records more systematic than it has been in the past, and at the same time to co-ordinate the work of this Society with the recording done by Irish botanists in Irish journals. It has been arranged, therefore, that Professor D. A. Webb will provisionally act as Recorder for the whole of Ireland, but that he will endeavour to "farm out" certain groups of counties to members who are willing to take charge of them, while retaining responsibility himself for general co-ordination. It has been the practice for many years for new Irish records to be published in the Irish Naturalist's Journal in the first instance, with occasional summings-up in the Proceedings of the Royal Irish Academy. This is to be continued, and Professor Webb will forward all records published in these journals, or which reach him privately, to the editor of Watsonia.

Members who visit Ireland are asked, in return, to record as fully as possible the distribution of all plants which are not ubiquitous in the area in question (and here it may be recalled that in S.W. Ireland even Anthriscus sylvestris becomes extremely rare!), and to pass on these notes to Professor Webb, who will prepare for publication in Watsonia

such of them as represent an extension of range or a filling of gaps. It should be remembered that our knowledge of the distribution of plants in Ireland, though it has been, thanks to Dr. Praeger, extremely well codified, rests on a very slender basis. Only seven of the thirty-two counties have county floras, and for many of the widely distributed but not really common plants, say Bidens tripartita or Epipactis palustris, there is no information beyond the entries, averaging less than two per county, in Irish Topographical Botany.

It is obvious that if our knowledge of the distribution patterns of plants in the British Isles is ever to approach in completeness that which now exists for Holland or Scandinavia a large number of records for the less-known Trish counties must first be accumulated.

#### PLANT NOTES

Notes should be sent to the Editor. Contributors are requested to keep to the form adopted in *Watsonia*. The Note should start with the *B.P.L.* number and name of the genus or species concerned. If the Note concerns one vice-county only, start the Note with this information, as is done with Plant Records. The name of the author of the Note is printed at the end in small capitals.

#### ABSTRACTS

Offers of assistance will be appreciated. They may be made either to the Editor of Watsonia or to Mr. D. H. Kent, 75 Adelaide Road, West Ealing, London, W.13. It would be a great convenience if contributors would send in their Abstracts on slips of uniform size, the size desired being eight inches by five inches, the long ledge to be treated as the top of the page. A separate slip for each item permits the easy sorting of the MS, without the transcription which is otherwise too often necessary in the preparation of copy for the printer. The uniform slips can be easily filed and will be available for future reference, thus enabling the Editor to avoid repetition and to make helpful references to previous notes.

The author's name should be followed by the reference in full.

The abstractor is indicated by initials in square brackets at end of note.

#### PHOTOGRAPHS OF FIELD MEETINGS

It is proposed in future to have one photograph of a Field Meeting in each issue of the Year Book. These may illustrate interesting habitats or plants or perhaps representative groups of members. Those ioning field meetings are invited to send in pictures to the Hon. Assistant Secretary. Any photographs which it is not possible to reproduce will be welcome additions to the Society's files.

#### ADVERTISEMENTS

A limited number of relevant advertisements will be accepted for the Society's publications as space permits. Enquiries should be addressed to Mr. R. A. Graham, Mint House, Woodside Road, Northwood, Middlesex.

### LIBRARY FACILITIES

Members are reminded that through the kindness of the Council of the Linnean Society of London, they have the privilege of consulting the Library of the Linnean Society at Burlington House, Piccadilly, London, W.1.

#### EXCHANGE SECTION

Dr. D. P. Young, "Green Woods", 3 Essendon Road, Sanderstead, Surrey, has kindly consented to act as Distributor for the 1952 season. Parcels should be sent to him not later than December 1.

The Exchange Regulations are printed in the Year Book, 1949, pages 57-58, and copies may be obtained from the Hon. Assistant Secretary.

Members contributing and/or receiving specimens in connection with the Annual Exchange are entitled to purchase two additional copies of the Distributor's Report on reduced terms on giving notice to the Hon. Assistant Secretary not later than the 28th February of the winter of distribution (see Rule 8 (h)).

#### FUNCTIONS OF LOCAL SECRETARIES AND RECORDERS

While it is highly desirable that whenever possible the functions of Local Secretary and Recorder should be performed by one person, in practice this will not always be possible. The distinct functions are therefore here separately defined. It is not intended that Local Secretaries and Recorders should become the only, or even the usual, channels of communication between members on the one hand and the Officers, Referees, or Panel Members of the Society on the other. A Local Secretary or Recorder, upon appointment, shall have the boundary of his/her area defined. Areas will where possible be on the basis of Watsonian vice-counties, but it may be found desirable to appoint either for a smaller area.

#### LOCAL SECRETARIES

- 1. To keep in touch with other local members and where possible and desirable to arrange meetings for their benefit.
  - 2. To encourage the enrolment of new members.
- 3. To act as a centre for some botanical work of local bearing where they are qualified to do so.
- 4. To provide information to members of the Society from outside their areas, either by correspondence or otherwise, on travel facilities, accommodation, and botany. (This does not include supplying information about localities for rare plants, although statements as to their continued existence or frequency may be given for the purpose of scientific work.)
- 5. To keep in touch with local libraries, museums, and, especially, local herbaria and natural history societies, supplying information about them to other members, and particularly to the Panel, and also keeping the name of the Society before officials, officers, and members of local Societies.
- 6. To assist the Hon. Meetings Secretary and Leaders of field meetings prior to and at the time of visits of the Society to their area.
- 7. To report without delay to the Hon. General Secretary or Treasurer the death of any member within their area.
- 8. To make regular visits to habitats of special interest within their areas as far as possible, and to report without delay to the Hon. General Secretary any threat which may call for conservation measures.

#### RECORDERS

To assist the Editor by collecting records of more than local interest, checking records contributed for publication, and forwarding information about important changes in the flora.

## LOCAL SECRETARIES AND RECORDERS

(Revised February 1952)

The following members have agreed to act as Local Secretaries (L.S.) and Recorders (R.) for the Vice-Counties indicated. Members not so specified have undertaken to combine the duties of the two offices, the nature of which is explained above.

- V.-c. 1. J. E. Lousley (R.), Scilly Is. only
  - 3. E. N. M. Phillips (L.S.). Rev. W. Keble Martin (R.)
  - 4. F. A. Brokenshire (L.S.), Rev. W. Keble Martin (R.)
  - 5. A. D. Hallam (L.S.) (Taunton Castle, Taunton)
  - 6. Mrs. C. I. Sandwith
  - 7, 8, J. D. Grose
  - 9. Prof. R. D'O. Good (R.) (University College, Hull)
  - 10. J. E. Lousley (R.)
  - 12. J. Ounsted (L.S.). E. C. Wallace (R.)
  - 13. Mrs. P. German
  - 14. P. J. Wanstall (L.S.). E. C. Wallace (R.)
  - 15. F. Rose (R.)
  - 16. D. McClintock (L.S.). F. Rose (R.)
  - 17. J. E. Lousley
  - 18. S. T. Jermyn (L.S.). B. T. Ward (R.)
  - 19. B. T. Ward (R.)
  - 21. D. H. Kent.
  - 22. J. Ounsted (L.S.). Dr. E. F. Warburg (R.)
  - 23. Mrs. P. Warburg (L.S.). J. H. Burnett (R.)
  - 24. Dr. J. G. Dony (R.)
  - 25. Miss M. M. Whiting (L.S.). F. W. Simpson (R.)
  - 26. F. J. Bingley
  - 27. R. P. Libbey (L.S.), E. A. Ellis (R.)
  - 28. R. P. Libbey (L.S.), E. L. Swann (R.)
  - 29. Dr. S. M. Walters
  - 30. Dr. J. G. Dony
  - 31. J. L. Gilbert
  - 32. I. Hepburn
  - 33. C. C. Townsend
  - 34S. Dr. J. H. Davie (L.S.). C. C. Townsend (R.)
  - 34N. C. C. Townsend
  - 35. A. E. Wade
  - 36. F. M. Day (R.)
  - 37. Dr. R. C. L. Burges (L.S.). F. M. Day (R.)
  - 38. Dr. R. C. L. Burges (L.S.). P. S. Green (R.)
  - 39. E. S. Edees
  - 40. Dr. R. C. L. Burges (L.S.)
  - 41. A. E. Wade
  - 42-47. A. E. Wade (R.)
  - 48. Mrs. H. M. Richards (L.S.). A. E. Wade (R.)
  - 49. Prof. P. W. Richards (L.S.). A. E. Wade (R.)

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50, 51,
         A. E. Wade (R.)
         Prof. P. W. Richards (L.S.), A. E. Wade (R.)
 52.
 53, 54.
         Miss E. J. Gibbons
 55.
         F. A. Sowter (L.S.). Prof. T. G. Tutin (R.)
 56.
         Dr. R. W. Butcher
 57.
         R. H. Hall (L.S.). Miss K. M. Hollick (R.)
 58.
         W. D. Graddon
 59.
         T. R. Lacock (L.S.). W. G. Travis (R.)
 60.
         H. E. Bunker (L.S.)
 61.
         Dr. W. A. Sledge
 62.
         Miss C. M. Rob
 63.64.
         Dr. W. A. Sledge
 65.
         Miss C. M. Rob
         Dr. D. H. Valentine (L.S.). G. W. Temperley (R.)
 66.
 67, 68.
         G. W. Temperley
         G. Wilson (L.S.). B. Hopkins (R.)
 69.
 70.
         J. D. Hinde (L.S.). Miss C. W. Muirhead (R.)
 71.
         R. Howarth (L.S.). D. E. Allen (R.)
 72-74.
         Dr. H. Milne-Redhead
 75-77.
         R. Mackechnie
 78-84.
         Dr. G. Taylor (R.)
 85.
         Mrs. E. J. Balfour (L.S.). Dr. G. Taylor (R.)
 87-89:
         Miss M. S. Campbell
         Miss U. K. Duncan (L.S.). Dr. G. Taylor (R.)
 90.
 94, 95.
         Miss M. McCallum Webster.
 97.
         J. E. Raven (L.S.), E. C. Wallace (R.)
 98.
         E. C. Wallace (R.)
         Prof. K. W. Braid (R.)
 99.
         Dr. D. Patton (R.)
100.
101.
         Prof. K. W. Braid (R.)
102, 103. Miss C. W. Muirhead
         J. E. Raven (L.S.)
104.
        E. C. Wallace (R.)
105-108.
109.
         Miss M. S. Campbell (R.)
         Miss M. S. Campbell
110.
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It is hoped to extend these arrangements to cover as much of the country as possible. Any member who is willing and able to carry out the duties of either Local Secretary or Recorder, or both, in any area not already covered, or who knows any person, whether a member of the Society or not, who might be suitable, is invited to communicate with the Hon. General Secretary.

J. E. Lousley (R.)

#### PANEL OF SPECIALISTS

(Revised February 1952)

## CRITICAL SYSTEMATIC GROUPS

#### B.P.L. no.

- 2. Thalictrum L. Dr. R. W. Butcher
- 6. Ranunculus L. § Batrachium. Dr. R. W. Butcher
- 7. Caltha L. Prof. A. R. Clapham
- 32. Fumaria L. N. Y. Sandwith
- 35/1. Nasturtium R. Br. (excluding Rorippa). H. K. Airy Shaw
- 45. Cochlearia L. Prof. A. R. Clapham
- 64/3. Thlaspi alpestre L. Prof. A. R. Clapham
- 88. Viola § Nomimium, Dr. D. H. Valentine
- 88. Viola § Melanium. R. D. Meikle
- 100. Cerastium L. (annual species). E. Milne-Redhead
- 109. Montia L. Dr. S. M. Walters
- 117. Malva L. N. Y. Sandwith
- 123. Tilia L. H. A. Hyde
- 128. Erodium L'Hérit. Dr. E. F. Warburg.
- 132. Oxalis L. Dr. D. P. Young
- 183. Prunus L. Dr. R. Melville, Dr. E. F. Warburg
- 185. Rubus L. F. Rilstone (SW. Peninsula), W. C. R. Watson
- 190. Alchemilla L. Dr. S. M. Walters
- 190(2). Aphanes L. Dr. S. M. Walters
- 194. Rosa L. Dr. R. Melville
- 195. Sorbus L. Dr. E. F. Warburg
- 196. Crataegus L. A. D. Bradshaw
- 199. Saxifraga L. Prof. D. A. Webb
- 220. Epilobium L. G. M. Ash
- 247. Apium L. R. D. Meikle
- 296. Galium L. (palustre L. and allies). Prof. A. R. Clapham
- 383. Senecio L. J. E. Lousley
- 393. Arctium L. Dr. W. A. Sledge
- 395. Carduus L. Dr. W. A. Sledge
- 396. Cirsium Mill. Dr. W. A. Sledge
- 405. Centaurea L. E. Marsden-Jones
- 478. Centaurium Hill, J. S. L. Gilmour
- 480. Gentiana L. J. E. Lousley
- 497. Symphytum L. A. E. Wade
- 506. Myosotis L. A. E. Wade
- 527. Verbascum L. J. E. Lousley
- 543. Veronica L. (aquatic species). J. H. Burnett
- 545, Euphrasia L. Dr. E. F. Warburg
- 548. Rhinanthus L. Dr. E. F. Warburg
- 558. Mentha L. R. Graham

- 561. Thymus L. C. D. Pigott
- 596. Amaranthus L. J. P. M. Brenan, Dr. Ir. A. W. Kloos, Jr.
- 600. Chenopodium L. J. P. M. Brenan
- 611. Salicornia L. Miss M. S. Campbell
- 615. Rumex L. J. E. Lousley
- 633. Ulmus L. Dr. R. Melville
- 642. Betula L. Dr. E. F. Warburg
- 650. Salix L. R. D. Meikle, Dr. R. Melville, Dr. E. F. Warburg
- 651. Populus L. P. G. Beak, Dr. R. Melville
- 659→ Orchidaceae. V. S. Summerhayes
- 668. Epipactis Adans. C. P. Thomas, Dr. D. P. Young.
- 669. Orchis L. § Dactylorchis. Dr. J. Heslop-Harrison, Dr. P. Vermeulen
- 718. Juneus L. Dr. P. W. Richards.
- 729. Alisma L. J. E. Lousley
- 737. Potamogeton L. J. E. Dandy, Dr. G. Taylor
- 740. Zostera L. Prof. T. G. Tutin
- 745. Eleocharis R.Br. Dr. S. M. Walters
- 753. Carex L. E. Nelmes, E. C. Wallace
- 754→ Gramineae. C. E. Hubbard
- 824. Poa L. Dr. A. Melderis
- 826. Festuca L. Dr. W. O. Howarth
- 826 ( ). Vulpia C. C. Gmel. Dr. A. Melderis.
- 830. Agropyron Gaertn. Dr. A. Melderis, Prof. T. G. Tutin
- 835, Hordeum L. Dr. A. Melderis
- 844 Pteridophyta. A. H. G. Alston
- $872 \rightarrow Charophyta$ . G. O. Allen

Note.—The specialists' names in the above list are given in alphabetical order when two or more are available for consultation.

Members may send their specimens of British plants belonging to these groups direct to the specialist indicated, together with a stamped addressed envelope for reply. If the specimens are required to be returned, the necessary postage should be forwarded. The addresses of the specialists will be found in the List of Members, see pp. 8 to 22.

It should be understood that the specialist is not necessarily prepared to name all specimens submitted. In some cases the specialist indicated may not yet have attained sufficient knowledge of the group he is studying. In other cases the material submitted may be incomplete, lacking adequate data or badly prepared. All the specialists will, however, do the best they can to identify plants submitted by members.

Unless it is reasonably certain that specimens will arrive in good fresh condition, they should be sent flat in paper between stiff mill-boards to prevent shrivelling. Dried pressed specimens may be sent similarly. Specimens should be carefully labelled with locality, habitat, date and any other notes likely to be of use. Whenever possible specimens should be submitted in duplicate, so that the specialist may retain

one specimen if he so desires. If only one specimen of a gathering is submitted it should be clearly stated whether its return is desired.

Any member who is studying a critical group and would like his name added to the Panel should forward particulars to the Hon. General Secretary for consideration by the Council.

#### THE NAMING OF NON-CRITICAL BRITISH FLOWERING PLANTS+

Hitherto members have been asked to send any plants which they wished to have named and which are not represented in the above list of Critical Systematic Groups to the Hon. General Secretary. Owing to the increase in membership and activity of the Society, the Hon. General Secretary is no longer able to undertake this work.

It has, therefore, been decided to decentralize this service, and the following arrangements have been made by the Development and Rules Committee and approved by the Council. Certain members have agreed to attempt to name non-critical British flowering plants from one cr more vice-counties. Others have agreed to act as Regional Referees to represent groups of vice-counties and to assist, when required, the members who have undertaken to act for those vice-counties, i.e. the Vicecounty Referees. For convenience the regions selected conform with the Watsonian Provinces.

The following list shows the Vice-county and Regional Referees for England, Wales and Scotland. An asterisk indicates that the Vicecounty Referee is also the Recorder.

Members should, in all cases, send their non-critical plants to the Vice-county Referee for the vice-county in which the plants were found, and not necessarily to the Referee for their home vice-county. It may not be possible to name plants of critical groups not covered by the Panel of Specialists, nor all plants alien to the British Flora.

#### LIST OF VICE-COUNTY AND REGIONAL REFEREES ENGLAND AND WALES

PENINSULA. E. MILNE-REDHEAD. V.-c.

- 1. W. Cornwall C. C. Townsend ia. Scilly J. E. Lousley\*
- 2. E. Cornwall C. C. Townsend
- 3. S. Devon } Rev. W. Keble Martin\*
- 5. S. Somerset C. C. Townsend
- N. Somerset Mrs. C. I. Sandwith\*

#### CHANNEL. R. D. MEIKLE

- N. Wilts.
   S. Wilts.
   J. D. Grose\*
- 9. Dorset Prof. R. D'O. Good\*

- 10. Isle of Prof. R. D'O. Good (Uni-Wight versity College, Hull) 11. S. Hants.
- 12. N. Hants. E. C. Wallace\*
- W. Sussex Mrs. P. German\*
- 14. E. Sussex E. C. Wallace\*

#### THAMES. D. H. KENT

- 15. E. Kent F. Rose\*
- W. Kent
- 17. Surrey D. H. Kent
- 18. S. Essex 19. N. Essex P. T. Ward\*
- 20. Herts. Dr. J. G. Dony

†All Pteridophyta and Charophyta are covered by the Panel of Specialists

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21. Middlesex D. H. Kent*
                                               TRENT. Prof. T. G. TUTIN
22. Berks. Dr. E. F. Warburg*
                                        53. S. Lincoln54. N. LincolnMiss E. J. Gibbons*
23. Oxford J. H. Burnett*
24. Bucks. Dr. J. G. Dony*
                                        55. Leicester Prof. T. G. Tutin*
                                         56. Nottingham Dr. R. W. Butcher*
      ANGLIA. Dr. S. M. WALTERS
                                         57. Derby Miss K. M. Hollick*
25. E. Suffolk F. W. Simpson*
26. W. Suffolk F. J. Bingley*
                                               MERSEY. Prof. T. G. TUTIN
27. E. Norfolk F. W. Simpson
28. W. Norfolk E. L. Swann*
                                        58. Chester W. D. Graddon*
                                        59. S. Lancs.
29. Cambridge Dr. S. M. Walters*
                                                          D. E. Allen
                                        60. W. Lancs.
30. Bedford Dr. J. G. Dony*
31. Hunts. Dr. J. G. Dony
                                               HUMBER. Miss C. M. ROB
32. Northampton I. Hepburn*
                                        61. SE. York. Dr. W. A. Sledge*
                                        62. NE. York. Miss C. M. Rob*
         SEVERN. P. S. GREEN
                                        63. SW. York
34N. W. Gloucester (N.) C. C. Townsend* 64. Mid-W. York.
                                                           Dr. W. A. Sledge*
                                         65. NW. York, Miss C. M. Rob*
34S. W. Gloucester (S) Mrs. C. I. Sand-
          with
                                                 TYNE. G. W. TEMPERLEY
35. Monmouth A. E. Wade*
                                        66. Durham Dr. D. H. Valentine
36. Hereford F. M. Day*
                                        67. Northumberland S. | G. W. Temper-
37. Worcester Dr. R. C. L. Burges
                                                                     lev*
                                        68. Cheviotland
38. Warwick P. S. Green*
39. Stafford E. S. Edees*
                                                   LAKES. P. TAYLOR
40. Salop Dr. R. C. L. Burges
                                        69. Westmorland B. Hopkins*
SOUTH & NORTH WALES. A. E. Wade 70. Cumberland Miss C. W. Muirhead* 41-52. Wales A. E. Wade* 71. Isle of Man R. Howarth
                                 SCOTLAND
     ALL REGIONS. Dr. G. TAYLOR
                                         92. S. Aberdeen | Miss M. McCalluin |
                                         93. N. Aberdeen
                                                            Webster
72. Dumfries Miss C. W. Muirhead
73. Kirkcudbright | D. E. Allen
                                         94. Banff )
                                         95. Elgin | Miss M. McCallum Webster*
74. Wigtown
75. Ayr
                                         96. Easterness J. E. Raven
76. Renfrew
             R. Mackechnie*
                                         98. (Main) Argyll E. C. Wallace*
                                         97. Westerness
77. Lanark
                                         99. Dumbarton Prof. K. W. Braid*
78. Peebles
                                         100. Clyde Isles Dr. D. Patton*
79. Selkirk
                J. G. Roger
                                         101. Cantire Prof. K. W. Braid*
80. Roxburgh
                                        102. S. Ebudes
81. Berwick
                                                          Miss C. W. Muirhead*
                                        103. Mid Ebudes
82. Haddington
83. Edinburgh
                                        104. N. Ebudes J. E. Raven
                       Dr. G. Taylor*
84. Linlithgow
                                        105. W. Ross
                                        106. E. Ross
85. Fife with Kinross
                                                            E. C. Wallace*
86. Stirling R. A. Graham
                                        107. E. Sutherland
87. W. Perth Miss M. S. Campbell*
                                        108. W. Sutherland
88. Mid Perth Miss M. S. Campbell*
                                         109. Caithness Miss M. S. Campbell*
                                        110. Outer Hebrides Miss M. S. Campbell
90. Forfar Dr. G. Taylor*
                                        111. Orkney J. E. Lousley112. Zetland J. E. Lousley*
91. Kincardine Dr. G. Taylor
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The addresses of the Referees can be obtained from the List of members on pp. 8 to 22.

## MISCELLANEOUS SUBJECTS (Revised February 1952)

Botanical Apparatus and Material: E. Milne-Redhead Botanical Specimens, preparation of: E. Milne-Redhead Cytology in Relation to Systematics: Dr. E. F. Warburg

Ecology: Prof. A. R. Clapham

Folk Lore and Popular Names: Miss M. S. Campbell Foreign Floras and Foreign Field Work: A. H. G. Alston Genetics in Relation to Systematics: Dr. D. H. Valentine

Herbals: Dr. G. W. T. H. Fleming

History of British Botany, before Linnaeus: Rev. Prof. C. E. Raven History of British Botany, Linnaeus and after: J. S. L. Gilmour

Local Floras: N. Douglas Simpson

Maps: E. Milne-Redhead

Mapping, methods of: W. T. Stearn

Nomenclature: J. E. Dandy

Phenology and Meteorology: E. Nelmes Private Herbaria, location of: J. E. Lousley

Systematic Works and Monographs: N. Y. Sandwith

Vice-County Boundaries: J. E. Dandy

Members wishing to avail themselves of the privilege of consulting the specialists in the list, should write to them direct and enclose a stamped addressed envelope for reply (Addresses in Members' List, pp. 8 to 22.)

#### PERSONALIA

#### POTERIUM, SANGUISORBA AND ALLIED GENERA

Mr. T. R. Laycock is interested in preparing a monographic revision of the above, and would be grateful for both material and information. The material may be living (especially fruits), herbarium and/or pickled for anatomical and cytological study. He is compiling the accounts of the species in the Biological Flora of the British Isles and would again be grateful for any help.

#### GENUS LEDUM IN BRITAIN

Mr. B. W. Ribbons will be grateful for any information relating to the genus *Ledum* in Britain. Since the plants are so rare, specimens should not be collected in the first instance. He will be glad especially to hear of the existence of any herbarium specimens.

### LITHOSPERMUM ARVENSE L. AND L. OFFICINALE L.

Mr. J. S. L. Gilmour would be glad to receive unlimited quantities of ripe seed of *Lithospermum arvense* and *L. officinale*. It has been shown that some species of the genus contain a substance which is of great importance for medical purposes. Different lots of seed can be bulked if more convenient, though it would be preferable to keep seed from different localities separated; seed of each species should be kept separate. Seed should be sent to him, labelled with name of species and place and date of collection, at the University Botanic Garden, Cambridge. Postage will be repaid.

#### POLYGONIUM SECT. CENTINODE DC.

Mr. D. W. Jowett is working on the above section of *Polygonum* in Britain. He would be very grateful for both material of and information on *P. maritimum* L., *P. Raii* Bab., *P. aviculare* L. (*P. heterophyllum* Lindm.), *P. aeguale* Lindm., *P. rurivagum* Jord., *P. calcatum* Lindm. and *P. litorale* Link. The material may be living (including seed), herbarium and/or pickled for anatomical and for cytological study.

## ARTEMISIA MARITIMA L.

Dr. H. Stubbe writes:—"For systematic and biochemical purposes we need seeds of the polymorphous Artemisia maritima. I should thank you very much if you would kindly help me in obtaining these seeds from many habitats in your country. Please send parcels to me at Holderlinstrasse 11, Berlin-Charlottenburg 9."

#### DISTRIBUTION OF VERONICA SPECIES

The Professor of Botany at University College, Singleton Park, Swansea, would be grateful for information regarding the distribution of Veronica polita, V. persica, V. agrestis, V. hederifolia, and especially V. filiformis. Information as to the availability for inspection of herbarium specimens of any of the above-named species would also be welcome.

#### FLORA OF CHESHIRE AND NORTH WALES

Mr. J. P. Savidge has commenced work on a Flora of Cheshire and North Wales and would be grateful for records and notes on the families Ranumculaceae, Cruciferae and Caryophyllaceae and intermediate families (in the Bentham and Hooker sequence); also Pteridophyta and Gymnospermae. Detailed localities of rare species will be treated as confidential and for these he would like to have dates and the number of plants observed. Records may be sent to him at:—Millwood, Spital, Wirral, Cheshire.

#### FLORA OF HERTFORDSHIRE

Mr. G. L. Evans is preparing a new Flora of Hertfordshire, and would welcome any assistance (records, notes, etc.) in this task. Please write to him at:—The Museum, Paynes Park, Hitchin, Herts.

#### FLORA OF WILTSHIRE.

Mr. J. D. Grose informs us that the new Flora of Wiltshire is now in an advanced stage of preparation, but that records and information are still acceptable. He has asked us to express his thanks to the many members who have helped him in one way or another.

#### FLORA OF WARWICKSHIRE

The Birmingham Natural History Society is collecting records for a new Flora of Warwickshire, and would like help from as many people as possible. Anyone living in Warwickshire, or likely to botanize in the county, who is willing to assist, is asked to communicate with the Hon. Sec. of the Botanical Section:—Mr. R. C. Readett, 1 Tetley Road, Hall Green, Birmingham, 11, who will give details of the information required with each record.

#### FLORA OF DERBYSHIRE

Work on the revision of W. R. Linton's Flora of Derbyshire is actively proceeding. Records, notes or other data relating to the Derbyshire flora may be sent to the B.S.B.I. Local Secretary, Mr. R. H. Hall, 2 Hartington Terrace, West Road, Buxton, Derbyshire.

## SOWERBY & SMITH'S ENGLISH BOTANY, 1st EDITION

Miss E. J. Gibbons, Holton le Moor, Lincoln, wishes to discover the whereabouts of an annotated copy of Sowerby & Smith's English Botany,

1st Edition, formerly owned by John Cragg (d. 1830) of Threekingham, Lincs., and sold by his grandson since 1880. She wishes to see it for the purpose of county records and does not wish to buy.

#### SYSTEMATICS ASSOCIATION

A card index of autecological and/or cytogenetic-taxonomic researches that are being carried out on British flowering plants is maintained by the Association. Copies of the index may be consulted at the Royal Botanic Gardens, Kew, or at the Royal Botanic Garden, Edinburgh. Its purpose is to obviate overlapping between different workers. Members taking up research of this nature are asked to send particulars either to Mr. R. D. Meikle, Royal Botanic Gardens, Kew, or to Mr. B. D. Burtt, Royal Botanic Garden, Edinburgh, 4.

#### REVISED AND NEW FLORAS OF SUFFOLK.

Mr. F. W. Simpson, 40 Ruskin Road, Ipswich, Suffolk, has been collecting records for several years with a view to bringing the Flora of Suffolk up-to-date. It is intended first to publish in the Transactions and Proceedings of the Suffolk Naturalists' Society corrections and additions to the flora and, as space permits, a census list. Later, it will be possible to give the distribution of species, etc. Finally, it is hoped to publish all the records in a new Flora. Records and lists may be sent either to his private address or to The Museum, High Street, Ipswich. The exact habitats of special rarities will not be published unless these have been destroyed and the plant is known to be extinct in the area.

#### NEWS OF OTHER SOCIETIES

Under this heading we include, as space permits, information regarding other Societies which have botanical activities. We extend a cordial invitation to such Societies to contribute short notes to be considered for inclusion. It should be understood that under this heading nothing pertaining to advertising matter will be accepted. (Such matter should be included among advertisements.)

#### LONDON NATURAL HISTORY SOCIETY

We have received a list of the Field Meetings of this Society for 1952. Applicants for membership or for permission to attend a meeting as a guest should apply to Mr. H. A. Toombs, the General Secretary, British Museum (Nat. Hist.), Cromwell Road, S.W.7. Both Botanical and Ecological Sections arrange numerous lecture and field meetings throughout the year.

#### COUNCIL FOR THE PROMOTION OF FIELD STUDIES

The Council now owns four Field Centres:—
Flatford Mill, East Bergholt, near Colchester, Essex
Juniper Hall, near Dorking, Surrey
Dale Fort, near Haverfordwest, Pembrokeshire
Malham Tarn, near Settle, Yorkshire

Full descriptive leaflets about each of the Centres and about courses planned for the coming year are available and will be sent on request. The Centres are intended just as much for amateur naturalists as for parties from universities, training colleges and schools.

The normal period of residence is one week or more, and the charge is £5 15s 6d per week. Enquiries about accommodation or other information relating specifically to one of the Centres should be addressed to the Warden. Otherwise, and for general information, correspondence should be addressed to the Director, Council for the Promotion of Field Studies, Ravensmead, Keston, Kent.

#### CHELTENHAM AND DISTRICT NATURALISTS' SOCIETY

This Society is one of the most recently formed in the country and is growing rapidly—in keenness more than in numbers. The botanical section is very active and during 1951 many county and flora district records were made for Gloucestershire, and distribution gaps are gradually being filled in. Even greater activity by all sections is planned for the coming season, and to this end a Field Meeting Committee has been formed. B.S.B.I. members will always be welcome on excursions, particulars of which may be had from the F.M.C. Secretary, Mr. R. J. M. Skarratt, 265 Prestbury Road, Cheltenham. Both sectional and general meetings are held.

#### SOUTH ESSEX NATURAL HISTORY SOCIETY

The South Essex Natural History Society holds field meetings during the summer in South Essex. Any B.S.B.I. member wishing to visit the district, which has a good general and maritime flora, can obtain particulars from the Secretary, Mr. S. T. Jermyn, 98 Western Road, Leigh-on-Sea, Essex. Visitors are welcome.

#### SOUTH LONDON BOTANICAL INSTITUTE

The Institute maintains an important herbarium (including the collections of Joseph Woods, Frederick Townsend, W. H. Beeby and A. O. Hume), an excellent library, and garden. Rambles and visits are arranged on Saturdays during the summer months to places within easy reach of London, and lectures given on about ten Friday evenings during the winter. Members of the B.S.B.I. are invited to visit the Institute and to attend the lectures and rambles. Application may be made to the Curator at 323 Norwood Road, London, S.E.24, for a copy of the current programme.

#### INTERNATIONAL ASSOCIATION FOR PLANT TAXONOMY

Full particulars of the Association were given in Year Book, 1951, pages 115-116, where aims and terms of membership were stated. Six numbers of the bi-monthly publication Taxon have now been received by members. The financial agent for Great Britain and British Overseas Territories, through whom subscriptions can now be paid, is Mr. A. A. Bullock, The Herbarium, Royal Botanic Gardens, Kew, Richmond, Surrey.

# THE NATIONAL TRUST FOR SCOTLAND BEN LAWERS AND BEN GHLAS

With the aid of its Mountainous Country Fund, the Trust acquired the upper Southern Slopes of Ben Lawers and Ben Ghlas, comprising about 7,500 acres, in August of last year (1950). This Fund has been built up as the result of the great generosity of one man, the late Mr. P. J. H. Unna, who was an experienced mountaineer and who was devoted to Scottish mountains. His ambition was to see the truly magnificent stretches of mountainous country opened to the public to walk over and to climb. In the case of Ben Lawers, he was also particularly interested in the Alpine Flora.

The Trust is most anxious to do what is possible to preserve the flora on Ben Lawers, and it is considered that this will best be brought about by making it more widely known how selfish and anti-social it is to uproot and even pick many of the rarer species.

The Trust has been criticised for permitting the North of Scotland Hydro-Electric Board's Lawers project which, amongst other things, authorises the laying of an aqueduct from East to West across the length of the Trust's ground. Such criticism is unjustified in that this project received Parliamentary sanction four years ago. The Trust, in

OBITUARY 87

gaining possession of this property, therefore, is powerless to prevent or alter the working of this project, but it is determined to watch developments most carefully and to do what is possible to ensure that the minimum disturbance is caused.

Inquiries about membership of the Trust will be welcomed by the Secretary, 5 Charlotte Square, Edinburgh, 2.

#### OBITUARY

#### L. W. WILSON (1887-1951)

It was a shock for us to hear at the commencement of the Ipswich Field Meeting of the death of Leonard W. Wilson the previous Sunday (April 29th) while on a bird-watching trip near his home at Margate. I met him first when he was a tax-inspector for the inland revenue at Bedford in 1936. He had a great love of the countryside, but was always more interested in birds than flowers. He was, nevertheless, a great help to me in my early work on the Bedfordshire Flora, as he was to Mr. Francis Rose when he moved to Margate in 1939. He joined our Society in 1947 and had attended many of our Field Meetings. He retired in 1949 and had booked for all our meetings in 1950. He never claimed to be an expert botanist, but the Society meant much to him. To his widow and daughter we offer our deepest sympathy.

J. G. Dony.

#### GEOGRAPHICAL LIST OF MEMBERS

(As at 30th April 1952)

Localities are as far as possible placed within the vice-counties in the following order: -S.W., S., S.E., W., C., E., N.W., N., N.E., smaller towns and villages being inset under the larger towns.

After the number and name of each vice-county is given the name of the Local Secretary and Recorder for that vice-county; if these are different people, they are designated (L.S.) and (R.).

S. Channel Is.

Jersey. Arséne, Bro. Louis.

- 1, W. Cornw. with Scilly. -J. E. Lousley (R.) for Scilly.
  - S.W. Penzance. Little, D. A. J.
  - Gulval. Bolitho, Mrs. A.
  - W. St. Ives. Drabble, Mrs. E. Camborne. Murphy, Miss R. J.
  - Truro:  $\mathbf{E}$ Penhallow, Rilstone, F. Falmouth. Whicker, Mrs. G.
- 2. E. Cornw.
  - S.E. Saltash Adams, Rev. J. H.; Hurst, C. P.
  - Bodmin. Sworder, Miss R. M.
- 3, S. Devon. -E. M. Phillips (L.S.). Rev. W. Keble Martin (R.).

S.W. Plymouth;

Plympton. Morley, Earl of.

Totnes. Phillips, E. M.

- Teignmouth. Waterfield, R. S. Dawlish, Gilbert-Carter, Dr. H.
- Exeter. Roborough Library, C. Bradninch. Thorold, C. A.

Whimple. Steuart, Mrs. G. M.

N.W. Chagford;

Gidleigh, Martin, Rev. W. Keble.

- 4, N. Devon. -F. A. Brokenshire (L.S.). Rev. W. Keble Martin (R.).
  - Barnstaple. Brokenshire, F. A. Braunton, Wright, Dr. F. R. E.
- 5. S. Som. —A. D. Hallam (Somerset Arch. & Nat. Hist. Soc.) (L.S.).
  - Taunton. Dodd, A. J.; Somerset Archaeological & Nat. Hist. Soc. C. Corfe. Fox, Mrs. C.
  - Yeovil. Palmer, W. E.
  - N.W. Minehead, Ellen, Miss D. M.
- 6, N. Som. -Mrs, Sandwith.
  - S.W. Bridgwater;

Stawell. Graham, Comm. R. D.; Graham, Mrs. C.

N. (Bristol: see 34)

Clevedon. Wethered, Miss D. M.

Nailsea. Swaine, Miss A. K.

N.E. Bath, Barton, Miss F. M. Weston, Stevenson, Miss E. H 7, N. Wilts. -J. D. Grose.

S.W. Bradford-on-Avon. Gurney, Miss C.

Mariborough. Wedgwood Herbarium (Marlborough College); Stewart, Mrs. B. H.

Ham. Partridge, Mrs. F.

N.W. Seagry. Barnes, Mrs. E.

Wootton Bassett:

Broad Town, Grigson, G.

N.E. Swindon, Grose, J. D.

8, S. Wilts. -J. D. Grose.

Salisbury; S.E.

Homington. Farguharson, Mrs. J.

W. Colerne. Frowde, Miss D. M.

N. Devizes. Sandell, R. E.

> Littleton Panell. Marsden-Jones, E. Worton. Cobbett, Lt.-Col. W. O.

- 9, Dorset. -Prof. R. D'O. Good (University College, Hull) (R.).
  - Dorchester. Gould, H. C. F.

S.E. Swanage. Bloomer, H. H.

Poole;

Parkstone. Hill, S. A.

Charmouth. Waldy, Hon. Mrs. H. P. Beaminster. Graveson, A. W. Wimborne. Deakin, R. H. W.

E.

Crichel. Hardinge of Penshurst, Hon. Lady.

Sherborne, Rose, Mrs. E. N

N.E. Blandford, Twist, A. F.

10, Isle of Wight. -J. E. Lousley (R.), Ventnor. Laidlaw, Miss R. G. B.

11, S. Hants.

S.W. Bournemouth. Simpson, N. D.; Watt, Mrs W. B. Christchurch. Lavender, J. H.

> Lymington. Davy, Lady; Goodhart, Mrs. M. S. Ringwood. Haines, Mrs. E. M.: Haines, Miss G. M.

S. Southampton. Chadwick, N; University College; Vernon, P. F.; Wil liams, Dr. W. T.

Fareham:

Stubbington, Burton, C. W. M.

S.E. Portsmouth:

Southsea. Blaikley, Miss N. M.

N Winchester (& see 12). Jacques, Miss M.; Tindall, Mrs. K. B. Sparsholt. Baker, Rt. Hon. H. T.

Petersfield (& see 12). Seward, Mrs O. G. West Meon Smith A M. S.

- 12, N. Hants. -- J. Ounsted (L.S.). E. C. Wallace (R.).
  - Winchester (& see 11), Palmer, Hon. W. J. L.

S.E. Petersfield (& see 11).

Liss, Baring, Hon. Mrs. G.

W. Stockbridge;

Leckford. Lewis, J. S.

Andover. Cory, Miss A. M.

Alton. Langridge, C. E.

- 13. W. Sussex. -Mrs. P. German.
  - Arundel. Esplan, Mrs. C S. Littlehampton:

Angmering. Oswald, P. H.

S.E. Worthing, Buckle, O.; Gregor, Rev. A. G.; Lowne, B. T. Clapham. Gibson, Mrs. G. C. Goring-by-Sea. Stern, Col. F. C. Durrington. German, Mrs. P. Ferring-by-Sea. Newbould, P. J. Brighton (& see 14). Brighton Public Library; Wanstall, P. J.

Portslade. Williams, Dr. W. B. W. Midhurst. Norton, Miss M.

Pulborough. Bull, Mrs. H. C.

N.E. Horsham, Hurst, Miss B.

14, E. Sussex. -P. J. Wanstall (L.S.), E. C. Wallace (R.),

s.wLewes:

Newick. Bruxner, C. J.

Eastbourne. Hart, Miss I. R. G. Bexhill. Baylis, Miss D.; Wooster, K. R.

S.E. Hastings:

Battle, Garratt, Mrs. B, E. M.

St. Leonards. Andrew, E. S.

N.W. E. Grinstead;

Wych Cross. Dent, G. Forest Row. Parsons, Miss M.

Crowborough, Eyre, Mrs. R. S. K. (Tunbridge Wells, see 16).

N.E. Stonegate. Young, Rev. Canon A.

15, E. Kent. —F. Rose (R.).

S.W. Sandhurst. Stevenson, Miss A. D.

S.E. Folkestone:

Shorncliffe. Wright, Mrs. A G.

Ashford. Pope, C. N.; Scott, E. C. Brook, Kirby, Mrs. G. E.

E. Denton, Long, Miss D. A. C.

N.W. Maidstone (& see 16). Maidstone Corporation Museum; Ruxton, J. P. Aylesford, West, Dr. C.

Canterbury. Milward, Miss M. E.; Robinson, E. A. Whitstable. Bell, P. R. N. Faversham. Verschoyle, Mrs. W.

Teynham. Moor, J.

Sheppey:

Minster. Wood, C. A.

Broadstairs. Swales, G. J. N.E.

Sandwich. Day, Miss E.; Graham, Mrs. E.

-D. McClintock (L.S.). F. Rose (R.). 16, W. Kent.

Tunbridge Wells. Bull, K. E.; Municipal Museum. Speldhurst. Mallinson, Mrs. M. B.

Tonbridge:

Hildenborough. Turnbull, Miss E.

Sevenoaks. Fawkes, F. S. E.; Slater, D. C. C. Platt. McClintock, D.

E. Maidstone (& see 15).

East Malling. Rose, F. West Malling. Davison, Miss A. M.; Gray, H.

N.W. Beckenham. Howell, W.

Bickley. Watson, W. C. R. Bromley. Boon, Miss V. M.; Coxhead, G. W.

London, S.E. Brown, G. M.; Chandler, Dr. S. E.; Lovis, J. D.: Pittman,

Mrs. D. M.; Shaw, H. K. A.

Petts Wood, Swain, A. M. Upper Belyedere. Matthews, G. A. N.E. Gravesend:

Meopham Green. Baker, C. M.

Rochester:

Strood. Pownall, Rev. G. C.

17, Surrey. -J. E. Lousley.

S.W. Godalming, Allen, G. O.; Jekyll, F.

Charterhouse. Polunin, O. V.

Witley. Ash, G. M.

Haslemere. Swanton, E. W.

Hindhead. Gray, Dr. R. E. G.

S.E. Redhill. Isherwood, Miss E. M. C. Horley. Gurteen, F. M.; Morgan, Miss B. M. C.

W. Farnham:

Camberley. Dalby, D. H.

Frensham, Diver, Capt. C.

British Empire Naturalists Association; Russell, Lady Victoria; Starr, Miss-E. L. G.

Dorking. Raison, C. E. C.

Abinger Common. Collenette, C. L.

Epsom. Ashhurst, MIss D. E.; Ellis, A. E.

Ashstead. Herrick, A. C.

Chipstead. West, G. E.

Ewell. Wilson, Miss B. A.

 $\mathbf{E}$ Caterham. Pigott, C. D.

> Sanderstead. Cannon, J. F. M.; Young, Dr. D. P. Warlingham, Greenfield, P.

N. Esher. Wheatley, A. R.

Weybridge;

West Byfleet. Macdonald, J.

Woking. Warren, W. E.; Warren, Mrs. W. E.

Wisley. Scase, R. P.

Cheam. Chidell, J. W. P. N.E.

Croydon, Croydon Nat. Hist, Society; Herbert, Miss M. J.; Leadbitter, Sir E.; Miles, D. F. S.; Prime, C. T.

Kew. Bor, Dr. N. L.; Brenan, J. P. M.; Drummond, R. B.; Hemsley, J. H.; Hubbard, C. E.; Kew Herbarium Library; Marshall, H. S.; Meikle, R. D.; Melville, Dr. R.; Nelmes, E.; Nelmes, Miss S.; Ridley, H. N.; Salisbury, Sir E. J.; Sandwith, N. Y.: Souster, J. E. S.; Summerhayes, V. S.; Taylor, P.; Turrill, Dr. W. B., Williams, I. A.

London, S.W. Castell, C. P.; Hodges, K. J.; Hurle, K. J.; Lousley, J. E.; Whitehouse, Mrs. M.; Woodhead, J. E.

Mitcham. Pugh, Miss J. P.

New Malden. Spreadbury, W. H.

Old Coulsdon. Britten, H.

Petersham. Milne-Redhead, E. Richmond. Pitmann, P. B.; Ramsbottom, Dr. J. R.: Welch, Mrs. B.

Surbiton. Jones, Miss M. M.; Price, Miss M. E.

Sutton. Wallace, E. C.

18, S. Essex. -S. T. Jermyn (L.S.). B. T. Ward (R.).

S.W. Woodford Green, Brett, Miss O. E.; Hensler, Major E. Ilford. Male, Miss E. M. London, E. Brett, D. W.; Peterken, J. H. G.; Ward, B. T.

Upminster. Godward, Dr. M. B. E. S

S.E. Westcliff-on-Sea. Jermyn, S. T.

W. Loughton. Payne, R. M. 19. N. Essex. -B. T. Ward (R.).

Colchester, Brown, G. C.

N.W. Great Chesterford. French, Miss E. H. Saffron Walden. Littleboy, Miss S. M.

#### 20. Herts.

S.W. Radlett. Skinner, T. G.

Rickmansworth, Young, Miss B. M.

Watford. Buckle, Miss W. F.

S. Berkhampsted, Bannister, H. E. Cheshuat. Spillett, A. W.

Welwyn. Garside, Miss H. D. Hertford. John Innes Horticultural Institution; Mortis, Mrs. R. H. S.E.

E. Bishop's Stortford. Colman, C. S.; Killick, H. J.

N. Hitchin. Evans, G. L. Letchworth, Meyer, N.

Royston;

Bassingbourn, Sell, P. D.

#### 21. Middx.

D. H. Kent.

S.W. Staines, Grigg, H. C.

Hampton. Yoo, P. F.

Shepperton, Norman, P. R.

Twickenham. Gerrans, Miss M. B.; Sayer, Mrs. K. N.

Whitton. Collins, B. E.

S. Hounslow. Cunnell, G. J.; Westrup, A. W. Isleworth. Farendon, Mrs. J.; Farendon, W. E.

S.E. London, S.W. Alston, A. H. G.; Birkett, Lady; British Museum (Nat Hist.); Clayton, Mrs. M. H.; Codrington, Lt.-Col. J.; Dandy, J. E.; Davies, Mrs. H. R.; Eastwood, Mrs. J. F.; Eliot, Lady A.; Gardiner, J. C.; Hall, P. C.; Hall, Mrs. P. C.: Horticultural Society, Royal; Isaac, Miss M.: Jackson, Major J. P. A.; Melderis, Dr. A.; Merriman, Dr. B.; Nature Conservancy; Phelps, Mrs. J. V.; Russell, Mrs. B. H. S.; Science Museum; Spooner, H.; Le Sueur, Mrs. K. H.; Taylor, Dr. G.; Vivian, Miss C.; Walker, Mrs. R. J. B.; Whalley, C. A.

Boniface, R. A.; Collett, T. G.; Corner, J. H.; Cornwell, W Miss W. J.; FitzGerald, Mrs V. H.; Forestry Commission; Hay, J. A.; Holbek, Miss O.; Kent, D. H.; Linnean Society of London; Longfield, Miss C.; Mackintosh, W.; Sapper, A.; Small, Mrs. L. P. M.

Birkbeck College; Crichton-Stuart, Lady C.; Heslop-W.C. Harrison, J.

E. Alsford, Miss J. E.

Holland, Sir J. S.; Hurst & Son Ltd.; Mercers School. E.C.

Porter, D. L. H.; Price, W. R.; Wilkinson, J. S. N.W.

Bangerter, E. B.; Brooke, Miss W. M. A.; Islington N. Public Libraries; Marks, C. E.; Scholey, Miss M. A. R. S.; Smithson, Miss E.

W. Uxbridge: Ickenham, James L.

C. Edgware. London Natural History Society; Short, G. R. A.

N.W. Northwood, Chapple, J. F. G.; Graham, R. A.; Sinker, C. A. North Harrow. Smith, D. C. Harrow Weald. Assn. School Nat. Hist. Societies.

- 22, Berks. —J. Ounstead (L.S.). Dr. E. F. Warburg (R.).
  S. Newbury. Thomas, Dr. A. S.
  C. Reading. Butler, Miss K. 1.; Erith, Dr. A. G.; Newey, P.M.; Ounsted, J.; Simmonds, Mrs. A. M. Tilehurst. Watson, Dr. E. V.; Williams, L. H.

Checkendon, Gray, Miss R. E. K.

Wallingford. Severn, Lady.

N.E. [Oxford, see 23].

Appleton. Kitson, Miss B.

- 23, Oxon. -Mrs. P. Warburg (L.S.). J. H. Burnett (R.).
  - S.W. Burford. Fitter, R. S. R. Witney. Stephens, J. S.
  - S Oxford. Beak, P. G.; Burnett, J. H.; Creed, Dr. R. S.; Harley, Dr. J. L.; Jones, E. W.; Marriott, Miss M. M.; Sladen, Dr. W. J. L.; University Dept. of Botany; University Dept. of Forestry; Warburg, Dr. E. F.; Warburg, Mrs. P.; White, F.; Young, B. Headington. Gough, J. W.; Roberts, T. V. Sandford-on-Thames. Theobald, W. L. Wheatley, Hassall, Mrs. B.
  - Henley-on-Thames. Atkinson, R. S.E. Rotherfield Greys. Balme, Miss O. E. Maidenhead: Cookham Rise. Ambrose, F. (Reading, see 22).

South Stoke. Elliot, Rev. E. A.

- N.W. Chadlington, Roche, The Lady,
- 24. Bucks. -Dr. J. G. Dony (R.).

S.W. Henley-on-Thames: Fawley. Mackenzie, Major R.

Marlow;

Bourne End. Wood, Miss A. F.

Slough. Balfour, A. P. Taplow. Skimming, Mrs. A.

- N.W. Buckingham, Reid, L. M.
- 25, E. Suff. -Miss M. M. Whiting (L.S.). F. W. Simpson (R.).

S.W. East Bergholt. Bingley, F. J. Ipswich. Simpson, F. W.

Woodbridge. Churchman, Miss N.; Churchman, Miss V. Saxmundham. Cranbrook, Dowager Countess of

Southwold; N.E. Blythburgh. Whiting, Miss M. M. Lowestoft. .Copithorne, Dr. R. E. C.

- 26. W. Suff. -F. J. Bingley. N.W. Mildenhall. Southwell, Mrs. M.
- 27, E. Norf. -R. P. Libbey (L.S.). E. A. Ellis (R.). Ditchingham. Brown, Miss M. I. S. Norwich. Ellis, E. A. Ç. Strumpshaw. Jermy, A. C.
- 28, W. Norf. -R. P. Libbey (L.S.). E. L. Swann (R.). S.E. Watton; Saham Toney. Noble, Miss E. R.
  - King's Lynn. Hilbert, Miss G. B.; Libbey, R. P.; Swann, E. L. W.
  - Dereham. Pankhurst, J. S. R. E.
  - Walsingham. Gurney, J. N.E.

29, Cambs. -Dr. S. M. Walters.

S. Cambridge. Adair, G. S.; Broad, P. D.; Coombe, D. E.; David, R. W.; Gilmour, J. S. L.; Goodway, K. M.; Gourlay, W. B.; Harberd, D. J.; Heywood, V. H.; Hughes, R. E.; Lambert, Dr. J. M.; Mills, Dr. W. H.; Perring, F.; Proctor, M. C. F.; Raven, Rev Canon C. E.; Raven, J. E.; Tansley, Sir A. G.; University Botany School; Walker, D.; Walters, Dr. S. M.; Watt, Dr. A. S.

30, Beds. -Dr. J. G. Dony.

S.W. Leighton Buzzard. Reld, D. A.

S. Dunstable, Coales, W. D.

S.E. Luton. Chambers, V. H.; Chesham, F. L.; Culshaw, Rev. J. C.; Dony, Dr. J. G.

C. Bedford, Cardew, Major J. W.; Lucas, R. L.; Simpson, Lt.-Col. F. H.; Taylor, Mrs. S. E.

N.W. Harrold. Day, Miss G. H.

31, Hunts. -J. L. Gilbert.

32. Northants. -I. Hepburn.

C. Northampton;

Wootton. Northants. Nat. Hist. Society (H. G. Allen, Hon. Sec.).

E. Wellingborough. Gent, Mrs. G. M.

N.E. Wansford, Gilbert, J. L. Oundle, Hepburn, I. Stamford, Lemmon, R. A.

33, E. Glos. -C. C. Townsend.

S.W. Stroud (& see 34).

Bussage, Abell, Rev. R. B. Bisley. Hughes, Dr. M.

Gloucester. Crypt School; Fleming, Dr. G. W. T. H.; Hartpury-Gay, P. A.; Haines, J. W.; Haines, Mrs. J. W.; Williams, J. E. M.

C. Cheltenham. Cheltenham & District Nats. Society; Sprague, Dr. T. A.; Townsend, C. C.

Andoversford, Abell, Miss L.

N.W. Tewkesbury. Bannister, C. W.

N. Winchcombe;

Gretton. Saunders, Mrs. N.

N.E. Moreton-in-Marsh. Heath, Rev. D. M. Snowshill. Milvain, Mrs. M.

34S, W. Glos. (South). -Dr. J. H. Davie (L.S.). C. C. Townsend (R.).

S.W. Bristol (incl. Clifton: and see 6). Central Library; Davie, Dr. J. H.; Evans, I. W.; Sandwith, Mrs. C. I.; Skene, Prof. M. Patchway. Davis, Mrs. M. L.; Robertson, A. G. Abbots Leigh. Davies, Miss E. W.

34N, W. Glos. (North). —C. C. Townsend. N.E. Newent. Southall, A. W.

35, Mon. -A. E. Wade.

36, Heref. -F. M. Day (R.).

C. Hereford. Medwin, Miss E. M.

E. (Near Malvern, see 37).

Colwall. Day, F. M.

Ledbury. Farquharson, A.

37, Worcs. —Dr. R. C. L. Burges (L.S.). F. M. Day (R.). S.E. Evesham. Sidwell, R. W.

W. Malvern (& see 36). Perrins, Mrs. D.

N.E. Bromsgrove, Smith, Miss P. M.

- 38. Warw. —Dr. R. C. L. Burges (L.S.). P. S. Green (R.).
  - Stratford-on-Avon. Grassland Research Station. S.
  - Studley. Southall, P. w.
  - Rugby. Rugby School Nat. Hist. Society.
  - N.W. Birmingham. Birmingham Nat. Hist. & Phil. Society; Birmingham Public Libraries; Burges, Dr. R. C. L.; Cadbury, Miss D. A.; Goodman, Miss C. M.; Hardaker, W. H.; Readett, R. C.; Woolman, J. F.

Edgbaston. Thomas, C. A., The University.

Handsworth. Jameson, J. H.

King's Heath, Hooper, J. L.

Moseley. Andrews, C. E. A. Rednal. Cadbury, J. Shirley. Adams, L. T.

- 39, Staffs. -E. S. Edees.
  - S.W. Wolverhampton, South Staffs, Naturalists Society,
  - Walsall. Haines, R. N. G. S.
  - N. Newcastle-under-Lyme. Edees, E. S. Hanley. Bemrose, G. J. V.
- 40. Salop. -Dr. R. C. L. Burges (L.S.).
  - Wellington Heron, Miss M. Ε.
  - N. Whitchurch; Prees. Chapman, Hon. Mrs. D. B.
- 41, Glam. -A. E. Wade.
  - Cardiff. McLean, Prof. R. C.; National Museum of Wales; Rees, J.; Wade, A. E.

Ely. Smith, R. L.

Lisvane, Rook, Dr. A. J. Llandaff, David, Miss A. M.

St. Brides-super-Ely. Cory, Mrs. C. M.

Whitchurch. Willan, Miss T.

- Swansea. University College. W.
- N.E. Merthyr Tydfil. Vaughan, J. G.
- 42-43, Brecon Radnor. -A. E. Wade (R.).
- 44, Carm. --A. E. Wade (R.).
  - Ammanford. Davies, H. 1. S.
  - N.E. Llandovery;

Rhandirmwyn, Vaughan, Mrs. H. R. H.

- 45. Pembr. —A. E. Wade (R.).
  - S.W. Dale, Conder, P. J.
- 46, 47, Card, Mont. -- A. E. Wade (R.).
- -Mrs. H. M. Richards (L.S.). A. E. Wade (R.). 48, Mer. Dolgelley. Richards, Mrs. H. M.; Richards, Miss J. E.
- 49, Caern. -Prof. P. W. Richards (L.S.). A. E. Wade (R.).
  - S.W. Nevin. Gough, F. C. G.
    - S.E. Capel Curig. Bruce, J. M.
    - N.W. Caernarvon. Larsen, L.
    - Bangor. Bradshaw, A. D.; Parker, R. E.; Richards, Prof. P. W.; University College of North Wales; Williams, Dr. R. J.

Denb. —A. E. Wade (R.).
 E. Wrexham. Meadows, P. H.

51, Flint. -A. E. Wade (R.).

52, Angl. -Prof. P. W. Richards (L.S.). A. E. Wade (R.).

53, S. Lines. -Miss E. J. Gibbons.

54, N. Lines. -Miss E. J. Gibbons.

S. Lincoln. Lincolnshire Naturalists Union; Metcalfe, Miss C. E.

N. Caistor; Holton-le-Moor. Gibbons. Miss E. J.

N.E. Binbrook. Knott, E.

55, Leics. -F. A. Sowter (L.S.). Prof. T. G. Tutin (R.).

C. Leicester. Borrill, M.; Conolly, Miss A.; Hanson, M. K.; Museum & Art Gallery; Sowter, F. A.; Taylor, S. A.; Tutin, Prof. T. G. Kibworth. Gray, Mrs. A. S. Thurcaston. Padmore, Miss P. A.

N. Loughborough;

Barrow-on-Soar. Walker, R. K.

56, Notts. -Dr. R. W. Butcher.

S.W. Nottingham. Bexon, Miss D.; Natural History Museum. Bramcote. Butcher, Dr. R. W.; Kind, S. S. West Bridgford. Coulthard, C. E.

E. Newark. Howitt, R. C. L.; Howitt, Mrs. R. C. L.

57, Derbs. —R. H. Hall (L.S.). Miss K. M. Hollick (R.).

W. Ashbourne. Hollick, Miss K. M.

N.W. Buxton. Carey, Miss R.; Hall, F. T.; Hall, R. H.

N.E. Chesterfield, Spragg, P. W.

58, Ches. -W. D. Graddon.

S. Nantwich. Cadman, J. R.

W. Chester. Williams, E. G.

E. Congleton. Graddon, W. D

N.W Birkenhead. Jones, Miss P. Wirral. Green, H. E.; Harvey, J. W.; Savidge, J. P.

N. Altrincham. Hughes, E. G.

N.E. Cheadle Hulme. Tallantire, Miss A C.

Knutsford. Goddard, W. J.

Stalybridge, Booth, Mrs. A.

59. S. Lancs. -T. R. Lacock (L.S.). W. G. Travis (R.).

S.W. Liverpool. Duffy, T. S.; Gordon, Miss V.; Liverpool Botanical Society; Travis, W. G.

S.E. Manchester. Calder, Dr. M. G.; Howarth, Dr. W. O.; Laycock, T. R.; Manchester Museum; Rosser, Miss E. M.

Bolton;

Westhoughton. Shaw, Rev. C. E.

Bury. Slater, F.

Didsbury. Mills, Dr. J. N.; Ramsden, W.

Leigh. Jones, A.

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Pendlebury. Hopkins, B.

Prestwich. Davies, H. B.

Salford. Frost, Miss L. W.

Whitefield. Gill, Mrs. M. M.

- W. Southport. Allen, D. E.; Holder, F. W.: Southport Botanical Gardens Museum.
- Wigan. McCurdy, Dr. J. M.

N.W. (Preston, see 60).

Ashton-on-Ribble, Bunker, H. E.

N.E. Nelson, Turner, A.

Clitheroe, Ackerley, Miss M. E.

- 60. W. Lancs. -H. E. Bunker (L.S.). Preston. Carter, J. E.
- 61, S.E. York. -Dr. W. A. Sledge.

Hull. Crackles, Miss F. E.; University College. S T2 Withernsea. Lewis, R.

w. York (& see 62). Public Library.

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Miss C. M. Rob.

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Northallerton;

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Leeds. Central Library; Hepper, F. N. H.; Baker, Dr. H. G. S. Adel. Nelson, G. A.

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Long Preston. Malham Tarn Field Centre.

- 65, N.W. York. -- Miss C. M. Rob.
- 66, Durham. -Dr. D. H. Valentine (L.S.). G. W. Temperley (R.).

Darlington. Darlington & Teesdale Nats. Field Club. S.

Durham. Durham Colleges, Science Library; Gibby, Mrs. A. N.; C. Valentine, Dr. D. H.

Birtley, Morton, J. K. N.

67, Northd. S. -G. W. Temperley, S.W. Allendale. Park, K. J. F.

- S.E. Newcastle-upon-Tyne. Blackburn, Dr. K.; Clark, Dr. W. A.; Heslop-Harrison, Prof. J. W.; King's College.
- C. Hexham;
  Corbridge. Cooke, R. B.
  Stocksfield. Temperley, G. W.
- 68, Cheviotland. -G. W. Temperley.
- 69, Westm. & N. Lancs. —G. Wilson (L.S.). B. Hopkins (R.). S.W. (N. Lancs.). Barrow-in-Furness. Barrow Nats. Field Club. Broughton-in-Furness. Cross, Hon. M. Windermere. Tetley, Miss M. I.
  - S. Grange-over-Sands. Jowett, Miss E. B. Kendal. Dolman, G.
  - N.E. Appleby;

Maulds Meaburn. Dent, Miss H. S. A.

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W. Cockermouth;

Brigham. Hinde, J. D.

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- 71, I. of Man. —R. Howarth (L.S.). D. E. Allen (R.). Howarth, R.
  - N. Ramsay; Sulby Glei

Sulby Glen. Howarth, R.

- 72, Dumfr. —Dr. H. Milne-Redhead.
   W. Thornhill. Daly, Mrs. B.
   N. Moffat. Wilkinson, Rev. L. G. W.
- Kirkc. —Dr. H. Milne-Redhead.
   S.E. Dalbeattie;
   Mainsriddle. Milne-Redhead. Dr. H.
- 74, Wigt. -Dr. H. Milne-Redhead.
- 75, 76, Ayr, Renfrew. -R. Mackechnie.
- 77. Lanark. —R. Mackechnie.
  N.W. Glasgow. Braid, Prof. K. W.; Crundwell, A. C.; Lee, J. R.; McKechnie,
  R.; Montgomery, Mrs. R.; Patton, Dr. D.; Ribbons, B. W.; Slack,
  A.; Young, Miss G. A.
  Giffnock. McVean, D. N.
- 78-82, Peebles, Salk., Roxb., Berw., Hadd. Dr. G. Taylor (R.).
- 83, Edinb. —Dr. G. Taylor (R.).

  Edinburgh. Basden, E. B.; Burtt, B. L.; Cumming, R.; Gait, R. W. C.;

  Green, P. S.; Nature Conservancy; Roger, J. G.; Shirras, Miss
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  - Windygates. Balfour, Mrs. E. J. E. St. Andrews. MacDonald, Dr. J. A.
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- 87, W. Perth. -Miss M. S. Campbell.
- 88, M. Perth. -Miss M. S. Campbell. S.E. Perth. Farquharson, Miss M. M. Dunning, Robson, A. W.
  - N.E. Aberfeldy:

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- 91. Kinc.
- 92. S. Aberd. E. Aberdeen. Matthews, Prof. J. R. Rubislaw Den North. Lyon, A. G.; Robson, N. K. B.
- 93, N. Aberd. E. Peterhead. Milne, Dr. J. F.
- 94, Banff. -Miss M. McCallum Webster. N.E. Banff; Macduff. Webster, Miss M. M.
- 95, Elgin. Miss M. McCallum Webster. Rothes, Hunter, Mrs. M. S. N.
- 96. Eastern.
- 97. Westerness. J. E. Raven (L.S.). E. C. Wallace (R.).
- 98, (Main) Argyll. -- E. C. Wallace (R.).
- 99, Dunb. -Prof. K. W. Braid (R.).
- 100, Clyde Is. -Dr. D. Patton (R.).
- 101, Cantire. -Prof. K. W. Braid (R.).
- 102, 103, S. Ebudes, Mid Ebudes. -Miss C. W. Muirhead (Carlisle Museum).
- 104, N. Ebudes. —J. E. Raven (L.S.). Skye; Uig. Gordon, Seton.
- 105, W. Ross. -E. C. Wallace (R.). S.E. Achnashellach. Paget, Lady.

106, 107, 108, E. Ross, E. Sutherl., W. Sutherl. -E. C. Wallace (R.).

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112, Zetland. -J. E. Lousley (R.).

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H.16, W. Galw.

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#### **DISTRIBUTOR'S REPORT FOR 1951**

Although the number of specimens sent in for distribution is still far too small, there has been a slight increase in the number both of contributors and of sheets contributed, and it can only be hoped that the Exchange Section is about to consolidate its position.

In most cases the material was carefully selected and well prepared, but one is forced to the conclusion that the study of the major critical genera is being left almost entirely to the few people who are recognised authorities. This is regrettable, as only the widespread collection and exchange of critical material can provide information on problems of distribution and at the same time encourage the interchange of opinion on identification which is so invaluable.

It is good to be able to welcome three new members to this Section—Dr. G. W. T. H. Fleming; the Herbarium of the Botany School, Cambridge; and the Division of Botany, Department of Agriculture, Ottawa. This last unexpected and extremely fine contribution of Canadian material brings a fresh interest to the Distribution, recently concerned almost entirely with the British flora, and indicates a possible and welcome widening of its scope. In all cases the genera sent out are represented in this country, and valuable material has been distributed of certain species whose rarity precludes normal collection here. A few European duplicates of British species have also been included by members, and it can only be suggested that a more general exchange of critical material with botanists in Scandinavia and Europe through this Section could be of very considerable interest.

The thanks of the Society are due to the following botanists for their identifications and notes on the specimens contributed; J. P. M. Brenan, J. E. Dandy and Dr. G. Taylor, R. A. Graham, W. O. Howarth, C. E. Hubbard, R. D. Meikle, N. Y. Sandwith, V. S. Summerhayes, Dr. S. M. Walters, Dr. E. F. Warburg, Dr. C. West and Dr. D. P. Young.

Thanks are also due to the Committee and Director of the Public Library and Museum, Carlisle, for permission to carry out the Exchange in the Museum.

C. W. MUIRHEAD.

Carlisle, April 1952.

## LIST OF PARCELS RECEIVED

	Gatherings.	Sheets.	Duplicates.
Botany School, Cambridge	6	46	15
Carlisle Museum	., 9	54	74
U. K. Duncan	2	29	
E. S. Edees	$\dots$ 2	23	20
G. W. T. H. Fleming	1	7	
J. E. Lousley	2	13	27
Dept. of Agriculture, Ottawa	10	200	
E. L. Swann	., 6	55	
National Museum of Wales	. 2	25	
E. C. Wallace	. 1	14	5
D. P. Young	. 6	64	
	47	530	141

(Records of non-British material are enclosed in square brackets.)

[Anemone patens L. var. multifida Pritzel. Canada; Mackenzie District, Northwest Territories; Fort Smith, 60°00'N. 111°53'W.; occurring singly or in small clumps in pure, moist sand in open Pinus Banksiana woods. In mats of Arctostaphylos uva-ursi. Flowers light bluish-purple; May 17th, 1950 (Ref. No. 3562); fruit June 10th, 1950 (Ref. No. 3781).—W. J. Cody and C. C. Loan, comm. Division of Botany, Science Service, Dept. of Agriculture, Ottawa, Canada, det. W. J. Cody.]

Fumaria micrantha Lag. 17, Surrey; arable field on chalk, Sanderstead, October 7th 1951.—D. P. Young (Ref. No. 4273). "Correct."—N. Y. SANDWITH.

[Arabis divaricarpa A. Nelson var. pinetorum (Tid.) Boivin. Canada; District de Provencher, Manitoba; Sandilands forest reserve. Pinede sablonneuse. Espèce pionnière des sables fraîchement remués, July 8th 1949.—B. Boivin (Ref. No. 6454), comm. Division of Botany, Science Service, Dept. of Agriculture, Ottawa, Canada.]

Brassica integrifolia (West) O. E. Schulz var. carinata (A. Br.) O. E. Schulz. 21, Middlesex; grown at Streatham from seed of plants collected at Tower Hill, Middlesex, in September 1950 and sown May 1951; flower July 16th 1951; fruit October 3rd 1951.—J. E. Lousley. August 1950 I noticed a few small plants of an unfamiliar Crucifer within the railings of a shrubbery at Trinity Square, Tower Hill, London, Middlesex, v.-c. 21, but was unable to obtain a specimen for identification. The following month Miss E. M. C. Isherwood sent me two plants with ripe pods from the same place, and I sowed seed in my garden at Streatham the following May and pressed flowering material on July 16th, and fruits on October 3rd 1951. In cultivation the plants grew to nearly a metre tall and were very different in facies from the dwarfed specimens originally found. The very glaucous leaves (especially on the under surface), and the strongly veined, flattened, inflated fruits are Vigorous weeding left no opportunity for the conspicuous features. plant to reappear at Trinity Square in 1951. It is recorded from Abyssinia, Eritrea, Somaliland, and Tanganyika Territory and has previously been found on an air-raid shelter at Chelsea—see J. Bot., 79. 86-7, 1941."—J. E. Lousley.

[Potentilla Hookeriana Lehm. Canada; Mackenzie District, Northwest Territories; Yellowknife—west of new town-site, 62°27'N. 114°22'W.; fairly common in shallow soil in crevices on rocky hillside; flowers yellow, June 17th 1949.—W. J. Cody and J. B. McCanse (Ref. No. 2156), comm. Division of Botany, Science Service, Dept. of Agriculture, Ottawa, Canada.]

Aphanes arvensis L. (s.s.). 3, S. Devon; arable field, Rectory Farm, E. Allington, with A. microcarpa, 25th June 1951.—S. M. Walters.

Aphanes microcarpa (Boiss, & Reut.) Rothm. 3, S. Devon; arable field, Rectory Farm, E. Allington, with A. arvensis, 25th June 1951.—S. M. Wallers.

[Saxifraga tricuspidata Rottb. Canada; Mackenzie District, Northwest Territories; 62° 27′ N. 114° 22′ W.; very common in crevices and in shallow soil in hollows on rocky hillside behind cabin. Caespitose; flower creamy white, June 21st 1949.—W. J. Cody and J. B. McCanse (Ref. No. 2216), comm. Division of Botany, Science Service, Dept. of Agriculture, Ottawa, Canada, det. W. J. Cody.]

[Saxifraga virginiensis Michx. Canada; Ottawa District; Gatineau County, Hull Township, Conc. 5, along Mountain Rd.; very common in shallow humus-rich soil on rocky hillside in open mixed woods. Flower white, May 3rd 1949.—W. J. Copy and I. J. Bassett (Ref. No. 2052), comm. Division of Botany, Science Service, Dept. of Acriculture, Ottawa, Canada, det. W. J. Copy.]

Artemisia Verlotorum Lamotte. 28, W. Norfolk; waste sandy ground near beach, Old Hunstanton, October 20th 1951, not yet in flower. Discovered there first by R. P. Libbey.—E. L. Swann (Ref. No. 2254). "I think that this is correctly named A. Verlotorum, though the segments of the upper leaves are broader and less attenuate-acute than in the plant common around London and on the Continent. Hunstanton is the most northerly locality in the world for this species."—J. P. M. Brenan.

Senecio squalidus L. × vulgaris I<sub>s</sub>. 63, S.W. York; waste ground near Sheffield; woody, sprawling; medium ligules; infertile; September 12th 1951.—John Brown (Ref. No. 2), comm. J. E. Lousley.

Senecio vulgaris L. (giant radiate form). 51, Flint; cult. in hort. Sanderstead, August 1st 1951. Descended from a plant found at Queensferry in 1948 by Miss E. P. A. Jones. This remarkable plant has been found in several places in Flintshire. Unless it comes under latifolia, I do not think it corresponds to any of Trow's segregates. No corresponding discoid form appears to have been found.—D. P. Young (Ref. No. 4198).

Senecio vulgaris L. 17, Surrey; cult. in hort. Sanderstead, June-July 1951. Progeny of heterozygous, short-rayed form, showing segregation into discoid, short-rayed and long-rayed forms. Descended from an artificial cross between a discoid (seg. praecox Trow) and radiate (seg. erectus Trow) form. The rayed form, which is homozygous, is very frequently accompanied in nature by plants with short, or rudimentary rays. These are the corresponding heterozygotes and may arise from natural crossing. Their progeny consists of plants like the present series, showing a Mendelian 1:2:1 segregation into discoid, short-rayed and long-rayed forms.—D. P. Young.

Hieracium exotericum Jord. 70, Cumberland; limestone wall on the roadside, Armathwaite Hall, near Keswick, June 16th 1951.—Miss C. W. Muirhead, comm. Carlisle Museum (Ref. No. 32.51), det. C. West and P. D. Sell.

Ledum groenlandicum Oed. 70, Cumberland; Scaleby Moss, near Carlisle, May 31st 1951.—Mrs. M. Shepherd, comm. Carlisle Museum.

[Pyrola grandiflora Radius: Canada; Mackenzie District, Northwest Territories; Fort Smith, 60° 00' N. 111° 53' W.; very common in moss in spruce forest on south slope of Slave River, June 13th 1950.—W. J. Cody and C. C. Loan (Ref. No. 3794), comm. Division of Botany, Science Service, Dept. of Agriculture, Ottawa, Canada, det. W. J. Cody.]

[Moneses uniflora (L.) A. Gray. Canada; Mackenzie District, Northwest Territories; Fort Smith, 60° 00' N. 111° 53' W.; in thick moss in spruce woods on south slope of Slave River; flower white; common, July 9th 1950.—W. J. Cody and C. C. Loan (Ref. No. 4302), comm. Division of Botany, Science Service, Dupt. of Agriculture, Ottawa, Canada, det. W. J. Cody.]

Nicotiana Tabacum L. 16, W. Kent; rubbish tip, Downe, September 2nd 1951. No doubt from seeds contained in garden rubbish.—D. P. Young (Ref. No. 4249).

Euphrasia micrantha Reichb. 103, Mid Ebudes; roadside from Arinagour to Gallauach, Isle of Coll. August 15th 1951.—Miss C. W. Muirhead, comm. Carlisle Museum (Ref. No. 115.51), det. E. F. Warburg.

Euphrasia scotica Wettst. 103, Mid Ebudes; moorland above Loch a Mhill Aird, Isle of Coll, August 16th 1951.—Miss C. W. Muirhead, comm. Carlisle Museum (Ref. No. 122.51), det. E. F. Warburg.

Euphrasia occidentalis Wettst. var. calvescens Pugsl. 103, Mid Ebudes; rocks by the sea, Grishipoll Bay, Isle of Coll, August 20th 1951.—Miss C. W. Muirhead, comm. Carlisle Museum (Ref. No. 147.51), det. E. F. Warburg.

Euphrasia brevipila Burnat & Gremli var. notata Pugsl. 88, Mid Perth; grassy slopes of Ben Lawers, near the Lawers Burn, August 22nd 1951.—Miss C. W. Muirhbad, comm. Carlisle Museum (Ref. No. 124.51), det. E. F. Warburg.

Melampyrum pratense L. var. hians Dr. f. stenophyllum Beauv. 95, Elgin; Grantown on Spey, July 1st 1951. Corolla deep orange.—Miss U. K. Duncan.

Mentha × gentilis L. [M. Smithiana R. Graham.] 17, Surrey; vacant building land, Sanderstead, a recent outcast, August 14th 1951. A subspicate form; scent like M. spicata, very sweet.—D. P. Young (Ref. No. 4220). "Not M. × Smithiana R. Graham, but M. × gentilis L. The calyx tubes are perhaps a trifle longer than one finds in many examples of the latter, but they are essentially campanulate rather than tubular. In every other character, leaf shape, included stamens and mauve corollas, this gathering is normal M. × gentilis."—R. A. Graham.

Lycopus europaeus L. (form with broad leaves). 41, Glamorgan; canal side, Cardiff, August 18th 1951. This form, which was about three feet high, grew in a large clump amongst the normal form. The plants doubtless originated from a single plant by vegetative reproduction.—A. E. Wade, comm. Department of Botany, National Museum of Wales. "I do not know any name for this interesting variant, nor have I matched it among the material in the Kew Herbarium."—J. P. M. Brenan.

Thymus Serpyllum L. em. Mill. ssp. Serpyllum var. ericoides Wimm. et Grab. 26, W. Suffolk; abundant on Foxhole Heath, Eriswell; open vegetation on loose sand on Bush Heath, St. Helena, July 1951.—C. D. PIGOTT, comm. BOTANY SCHOOL, CAMBRIDGE.

[Obione pedunculata (L.) Moq. Denmark; salt marshes at Amager Faellad, near København, August 1949.—C. D. Pigott, comm. Botany School, Cambridge.]

Polygonum patulum M. Bieb. 28, W. Norfolk; in light, sandy arable land (alien in carrot-orop), Gt. Massingham, October 20th 1951.—E. L. SWANN (Ref. No. 2255), "Correct."—J. P. M. BRENAN,

Salix triandra L. × viminalis L. 28, W. Norfolk; from a disused willow carr, Reffley Marshes, King's Lynn, April 30th and September 7th 1951.—E. L. Swann (Ref. Nos. 2237 and 2238). "Correct."—R. D. MEIKLE.

[Spiranthes Romanzoffiana Cham. Canada; Alberta; 2 miles south west of Fort Smith, N.W.T.; common in muskeg surrounding small lake, July 28th 1950 (Ref. No. 33).—C. C. Loan, comm. Division of Botany, Science Service, Dept. of Agriculture, Ottawa, Canada, det. W. J. Cody. "Agreed."—V. S. Summerhayes.]

Lazula × Borreri Bromf. ex Bab. 14, E. Sussex; margin of Park Wood, Hellingly, with both parents, but quite as abundant as either, March 26th (Ref. No. 3924) and May 13th 1951 (Ref. Nos. 3990-3993). Gatherings 3924 and 3990 were all taken from a single plant. No. 3991 was taken from various other plants. Specimens of the parents, L. Forsteri (Sm.) DC. (Ref. No. 3992) and L. pilosa (L.) Willd. (Ref. No. 3993) from the same locality are included.—D. P. Young.

[Ruppia maritima J. India; pool by railway station, Bassein, Bombay Presidency, February 10th 1946.—E. C. WALLACE (Ref. No. 5907), det. J. E. DANDY and G. TAYLOB.]

Eleocharis uniglumis (Link) Schult. 96, Easterness; coast east of Nairn, June 18th 1951.—Miss U. K. Duncan. "Good E. uniglumis."—S. M. WALTERS.

Carex digitata 1. 33, E. Gloucester; Cranham Wood, May 13th 1951.—E. S. EDEES.

Echinochloa Crus-galli (L.) Beauv. var. Crus-galli. 28, W. Norfolk; in light sandy arable land (alien in carrot-crop). Gt. Massingham, October 20th 1951.—E. L. Swann (Ref. No. 2259). "The long-awned Echinochloa Crus-galli, being the type-variety, now becomes var. Crus-galli, instead of var. aristata. This is in accordance with the new rules of nomenclature for such variants."—C. E. Hurbard.

Echinochlon Crus-galli (L.) Beauv. (awnless form). 28, W. Norfolk; in light arable land (alien in carrot-crop), Gt. Massingham, October 20th 1951.—E. L. Swann (Ref. No. 2256). "Var. ? I do not know the earliest and correct name for the awnless variant. There are several names to be considered, but the one we have used (Var. mitis) is not correct."—C. E. Hubbard.

Phalaris arundinacea L. [P. arundinacea L. f. colorata A. Schwartz]. 41, Glamorgan; canal side, Cardiff, June 1951.—R. DAVIES, comm. Department of Botany, National Museum of Wales. The anthocyanin pigmentation is much less evident in the dry state than when it was growing. This form is treated by some Continental authorities as the typical form of the species.—A. E. Wade. "Phalaris arundinacea L."—C. E. Hubbard.

[Alopecurus aequalis Sobol. Canada; Mackenzie District, Northwest Territories; Yellowknife—62°27'N. 114°22'W.; in disturbed ground around cabins, very common, July 19th 1949 (Ref. No. 2711).—W. J. Cody and J. B. McCanse, comm. Division of Botany, Science Service, Dept. of Agriculture, Ottawa, Canada. Confirmed by C. E. Hubbard.]

Festuca elatior L. ssp. arundinacea (Schreb.) Hack. var. arundinacea. 70, Cumberland; rocky coast between Harrington and Parton, July 6th 1951.—Miss C. W. Muirhead, comm. Carlisle Museum (Ref. No. 169, 51), det. W. O. Howarth.

Festuca tenuifolia Sibth. 70, Cumberland; Kingmoor, near Carlisle, June 27th 1951.—Miss C. W. MUTRHEAD, comm. CARLISLE MUSEUM (Ref. No. 60.51), det. W. O. HOWARTH.

Agropyron repens (L.) Beauv. var. dumetorum Roem. & Schult. 70, Cumberland; margin of Wedholme Flow, near Lessonhall, Wigton, July 16th 1950.—Miss C. W. Muirhead, comm. Carlisle Museum (Ref. No. 50.37), det. C. E. Hubbard.

Roegneria Doniana (F. B. White) Meld. 88, Mid Perth; Ben Lawers Range, September 4th 1951.—J. E. Raven and S. M. Walters; 108, West Sutherland; cliff behind hotel, Inchnadamph, September 9th 1951.

—J. E. RAVEN, comm. BOTANY SCHOOL, CAMBRIDGE.

Thelypteris palustris Schott. 39, Staffordshire; Cannock Chase, September 8th 1951.—E. S. Edees (Ref. No. 8484).

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Adventive Flora of the Port of Bristol. Sandwith (193		2 6
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		4 6
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Walters (1949)	DI ILAI	2 0
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Walters (1949)	Britai	n. 1 6
Arteniisia veriotorum Lamotte and its Occurrence in	britai	n.
Brenan (1950)  × Senecio londinensis. Lousley (1943-4)  Centaurea pratensis Thuill. Britton (1926)  Habitats & Distribution of Gentiana uliginosa. Lousley		2 6 1 0
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Habitats & Distribution of Gentiana uliginosa. Lousle	v <i>(</i> 195	0) 1 0
Cuscuta europaea var. nefrens. Verdcourt (1945)	, ,	9 6
Cuscuta epithymum var. Trifolii Bab. Ooststroom (19)	51	1 0
Correct Name for Veronica aquatica Bernh. Burnett (	1950)	1 0
Another British Rhinanthus with Pubescent Calyx.	AA HILITO	
(1949)  Scutellaria hastifolia in Britain. Pigott (1951)  Menthae Briquetianae. Fraser (1924)  Menthae Britannleae. Fraser (1926)  Notes on Mentha. Fraser (1930)  Mint Notes. Graham, I (1949), II (1950), each  Mint Notes IV. Graham (1951)		10 10
Menthae Briquetianae. Fraser (1924)	••	2 8
Menthae Britannicae. Fraser (1926)		2 0
Notes on Mentha. Fraser (1930)	•••	1 0 1 0
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The Kenfig Epipactis, Thomas (1950)	•••	2 0
Orobic latifolia Vermeulan Duceley Wilmott (1945)	•••	20 16
Oroma interioria. Vermentelli, i ugalogi, minioti (1843)	• • •	0

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