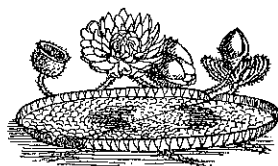


BOTANICAL SOCIETY of the BRITISH ISLES

Victoria regia



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YEAR BOOK

1951

EDITED BY

W. R. PRICE

AUGUST 1951

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EDITORIAL

We much regret that we have not been able to supply members with Year Book earlier this year than we have done previously. It is important that the book should be available early each year, as it contains many items relevant to summer activities, and accounts of Field Meetings should be read before the next ones take place. It is impossible to send all MS. to the printers until after the Annual General Meeting, but most of it can be in proof by that time if contributors, i.e. Leaders of Field Meetings and members desiring notes in Personalalia, would try to let me have their MS. not later than the middle of February.

The following points should be noted in the present issue:—the account of the Annual General Meeting of April 1951 is not Minutes, but an abridged account, a procedure we propose to adopt in future for economy reasons. Field Meetings accounts for 1949 are here completed, and those for 1950 are fortunately all published now, with the exception of two: Douglas (Isle of Man), June 25 to July 1, and Peak District, July 14 to 16. These will be published in the next issue. The Exhibition Meeting of 25th November 1950 is again fully dealt with, and it is hoped that these accounts are of sufficient interest to members to warrant the expense of printing them. More items have been included under "Notices to Members" and "News of other Societies" than in the past, the former containing Mr D. E. Allen's useful "List of County Floras in Preparation", and the latter has been expanded to include foreign news of importance.

It has been decided that Distributor's Report shall in future form an integral part of Year Book.

I shall be most grateful for criticisms of the present number, and for suggestions for increasing the number and scope of items which may have a personal appeal to members.

I should like to express my thanks to our printers, Messrs T. Buncle & Co. Ltd., for their kind help and co-operation.

W. R. P., June 1951.

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(up to and including 31st March 1951)

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 Travis, W. G., 9 Barton Road, Liverpool 9.
 S Tromsø Museum Biblioteket, Tromsø, Norway.
 Tully, I., Science Librarian, Science Library, University College of North Wales, Bangor, Caernarvonshire.
 S Tunbridge Wells Municipal Museum, 12 Mount Ephraim, Tunbridge Wells, Kent.
 Turnbull, Miss E., Riding Cottage, Riding Lane, Hildenborough, 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, Leicester.
 Twist, A. F., Chettle House East, Blandford, Dorset.
 S Uppsala, Kungl. Lantbrukshögskolan, Uppsala, Sweden.
 S Utrecht, Botanical Museum and Herbarium, State University, Lange Nieuwstraat 106, Utrecht, Netherlands.
 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.
 Verdcourt, B., A.L.S., 86 Claremont Road, Luton, Beds.
 J Vernon, P. F., 38 Batterdale, Hatfield, Herts.
 Verschoyle, Mrs W., Old Vicarage, Ospringe, Faversham, Kent.
 S Victoria, The Public Library of, Melbourne, c/o Truslove and Hanson, 153 Oxford Street, W.I.
 Vivian, Miss C., 37 Wilton Crescent, London, S.W.1.
 Wade, A. E., F.L.S., Dept. of Botany, National Museum of Wales, Cardiff, Glam.
 Waldy, Hon. Mrs H. P., Sonameg, Higher Sea Lane, Charmouth, 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.
 Wallace, E. C., 2 Strathearn 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.
 Warner, S. Allen, M.P.S., Whitelea, Broadway, Didcot, Berks.
 L Warren, W. E., Selborne, Horsell Rise, Horsell, Woking, Surrey.
 F Warren, Mrs W. E., Selborne, Horsell Rise, Horsell, Woking, Surrey.
 S Washington, U.S. Dept. of Agriculture, The Librarian, Washington, 35, D.C., U.S.A.
 S Washington, Library of State College of, Pullman, Washington, U.S.A.
 Watchorn, Dr. Elsie, Ph.D., 25 Luard Road, Cambridge.
 Waterfield, R., 7 Buckridge Road, Teignmouth, Devon.
 Watson, Dr E. Vernon, 15 Ilkley Road, Caversham Heights, Reading.
 Watson, H. G., 2 Greendykes Road, Dundee, Angus.
 L Watt, Mrs W. Boyd, M.B.O.U., F.Z.S., San Simeon, 52 Wimborne Road, Bournemouth.
 Webb, D. A., M.A., Ph.D., F.L.S., Trinity College, Dublin.
 Webster, Miss M. McCallum, c/o Bank of Scotland, Macduff, Banff.
 L Wedgwood, Mrs.
 S Wedgwood Herbarium, The, Marlborough College, Wilts.
 Welch, Mrs B., B.Sc., 49 Lichfield Court, Richmond, Surrey.
 Wells, Mrs E. M., 4 Chellow Terrace, Chellow Dene, Bradford, Yorks.
 West, Dr C., "The Cowl House," Holt Wood, Aylesford, Kent.

- West, G. E., Ruanwella, Hallymead Road, Chipstead, Surrey.
 Westrup, A. W., 259 Hanworth Road, Hounslow, Middlesex.
 Wethered, Miss D. M., Woodside, Walton St Mary, Clevedon, Somerset.
 Wheatley, A. R., B.Sc., A.M.J.C.E., Greenacre, Orchard Way, Esher, Surrey.
 Whellan, J. A., Entomology Branch, P.O. Box 25, Causeway, Salisbury, Southern Rhodesia.
 White, F., 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.
 Wickham, Miss C., Edington House, near Bridgwater, Somerset.
 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.
 Willan, Mrs Hugh, Bridges, Teffont, Salisbury, Wilts.
 J Willan, Miss Tessa, 45 Wingfield Road, Whitchurch, Cardiff, Glam.
 Williams, E. G., M.A., F.R.I.C., 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., 8 Bedford Road, Horsham, Sussex.
 Williams Dr R. J., Bryn Adda, Port Dinorwic, Caernarvonshire.
 Williams, Dr W. B., 59 Station Road, Portslade, Sussex.
 Williams, Dr W. T., Botany Department, Bedford College for Women, London, N.W.1.
 J Wilson, Miss B. A., 3 Kingsway, Ewell, Surrey.
 Wilson, L. W., 4 Pembroke Avenue, Margate, Kent.
 Wood, Miss A. F., The Cottage, Hedsor Park, Bourne End, Bucks.
 Woodhead, J. E., B.Sc., F.I.C., Ph.C., 325 Kennington Road, London, S.E.11.
 Wooster, K. R., The Hawthorns, Potmans Lane, Lunsford Cross, Bexhill, Sussex.
 Wright, Mrs A. G., Aldham Hall, near Colchester, Essex.
 L Wright, Dr F. R. Elliston, Braunton, near Barnstaple, N. Devon.
 Yeo, P. F., 43 Park Road, Hampton Hill, Hampton, Middlesex.
 Yeoman, Miss Ruth, The Green, Brompton, Northallerton, Yorks.
 S York Public Library, City of, York.
 Young, Rev. Andrew, 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	...	...	...	19
Life Members	...	...	...	20
Ordinary Members	...	...	...	478
Junior Members	...	...	...	41
Family Members	...	...	...	3
Subscriber Members	...	...	...	80
Total Membership	...	...	...	641

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

MINUTES OF THE ANNUAL GENERAL MEETING, 30th March 1950

The Annual General Meeting was held in the Rooms of the Linnean Society, Burlington House, Piccadilly, London, on 30th March 1950, at 5.30 p.m.

The President was in the Chair and 51 members were present.

At the outset the President referred to the sad losses the Society had sustained in the deaths of Mr. E. G. Baker, Mrs. T. J. Foggitt and Mr. A. J. Wilmott. Mr. Baker, he said, was one of our oldest members and a much valued one; in his Will he had left to our Society a portrait of his father, which was to be hung, suitable inscribed, on loan in the Rooms of the Linnean Society, by permission of their Council. Mrs. Foggitt was also an old and very active member, whom Council had intended to nominate an Honorary Member. Mr. A. J. Wilmott the President described as the "lynch-pin" of the Society and of British Botany for very many years, and his death was a great loss, not only to the Society, but to all British Botanists. The Meeting stood for a minute in respect to their memories.

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

HONORARY GENERAL SECRETARY'S REPORT.

The Honorary General Secretary's Report had been circulated. Prof. T. G. Tutin proposed, and Mr. A. H. G. Alston seconded, that the Report be adopted. Carried.

HONORARY TREASURER'S REPORT.

The Honorary Treasurer's Report had been circulated. Mr. G. M. Ash asked why we had to appeal to the Royal Society for a grant. The Honorary Treasurer replied that application was made because *Watsonia* at present involved a heavy financial loss, owing to the greater cost of printing our periodical in parts, and the rising costs of printing generally. The Honorary Editor said that the Royal Society asks annually for applications from scientific societies for help with their publications. The Honorary General Secretary said that leaflets advertising *Watsonia* had gone out to various parts of the World, and extensively to North and South America. Mr. Ash thought it was not a cheerful Report. The President said that the coming year would be a critical one; if membership and the circulation of *Watsonia* could be increased, the Society's position would be much improved. In reply to a question, the Honorary Treasurer said that some advertisements had gone into *Watsonia*, but had not produced much return. Prof. T. G. Tutin said that, to keep *Watsonia* going, it was up to all members to find new members. Mr. S. M. Walters proposed, and Miss Vivian seconded, that the Honorary Treasurer's Report be adopted. Carried.

HONORARY EDITOR'S REPORT.

The Honorary Editor's Report had been circulated. The Honorary Editor said that there had been some delay over *Watsonia*, Vol. I, part 5, owing to the preparation of the late Mr. Wilmott's "Plant Notes". Mr. F. Rose suggested greater width of text. The Honorary Editor said that this would be considered. Mr. J. P. M. Brennan proposed, and Dr. D. P. Young seconded, that the Honorary Editor's Report be adopted. Carried.

HONORARY FIELD SECRETARY'S REPORT.

The Honorary Field Secretary's Report had been circulated. Mr. R. A. Graham proposed, and Mr. D. H. Kent seconded, that the Report be adopted. Carried.

The President thanked all Officers for their work done during the year.

ELECTION OF OFFICERS.

ELECTION OF PRESIDENT.

The President vacated the Chair, which was occupied by Mr. A. H. G. Alston. Mr. Alston said that Mr. J. S. L. Gilmour had been nominated by Council for re-election as President for 1950. This announcement was greeted with much applause, and Mr Gilmour was unanimously re-elected President. Mr. Gilmour re-occupied the Chair and thanked the Meeting for the honour done him. He said that it was a pleasure to him to preside over this Society of British botanists; he would be happy to do so for one more year, but thought that the Society should look for another President after that period.

ELECTION OF VICE-PRESIDENTS.

The President then announced that there were two Vice-Presidents to be elected. Council had nominated Mr. A. H. G. Alston and Miss M. S. Campbell. The President said that at the last Council Meeting Miss Campbell had sent in a Memorandum on the work and position of the Honorary General Secretary in relation to her own position. She felt that she had too much work to do, and that she could not continue without certain alterations in the arrangements of her Office. She suggested (i) the appointment of a second Assistant Secretary, (ii) the re-organisation of the arrangements for sending out publications from Oxford, and (iii) the appointment of an Advertisement Manager. Council had accepted (ii) and (iii), but not (i), as they felt that this alteration would unnecessarily complicate the work of the Society. Under these circumstances Miss Campbell felt that she could not continue as Honorary General Secretary, and Council had therefore nominated Mr. J. E. Lousley and Mr. E. L. Swann as Honorary General Secretary and Honorary Treasurer respectively. The Council also nominated Miss Campbell as an Honorary Member. The President continued that the Council especially wished to say how very much they appreciated the work that Miss Campbell had done. The nomination of Honorary Mem-

bership was a mark of their gratitude and esteem for everything she had done for over two years, and it was hoped that she would continue to help the Society in future. Miss Campbell replied:—

"Mr President, Members of the B.S.B.I.—Ladies and Gentlemen—I am quite overcome by the laudatory remarks that have been made, and thank you for them. When I wrote my Annual Report, I did not know that I should be addressing you for the last time, or I would have added a note of farewell. I should like you to know that until recently my work for the Society has given me great pleasure, and throughout I have felt your sympathy and interest. I want to thank you for all your many kindnesses, and to assure you that you have never added to my difficulties, and that it has always been a pleasure to receive your letters and to meet so many of you. I should like to think that, although I shall no longer receive or answer your letters, our acquaintance is not a passing one, and that I may number you among my friends, though officially I bid you good-bye."

Mr. Alston and Miss Campbell were then unanimously elected Vice-Presidents.

ELECTION OF HONORARY GENERAL SECRETARY AND HONORARY TREASURER.

The President stated that Mr. J. E. Lousley and Mr. E. L. Swann were nominated for the Offices of Honorary General Secretary and Honorary Treasurer respectively.

Mr Lousley then read the following statement:—

"The work of Treasurer of this Society has occupied much of my leisure for the past nine years, and I cannot help feeling that it would be more appropriate to turn my attention to private botanical work, which has long been put on one side, rather than to undertake Office in another capacity. In agreeing to nomination I am satisfying no personal ambitions, for my Office of Treasurer has enabled me to participate fully in all branches of our activities—indeed at one time or another I have carried out work now undertaken by most other Officers.

"The retiring Secretary has presented a Memorandum to Council stating that there is 'far too much work for an Honorary Secretary to cope with'. In these circumstances I have accepted the Council's nomination with some trepidation, for I am engaged during the day on other exacting duties, and it is only in the evenings that I am free to turn my attention to the Society's affairs. If there is anyone better qualified in these respects, and available, I should be very ready to stand down in their favour. If, however, the members still feel that they would wish to elect me as Honorary General Secretary, I shall be pleased to do my best to carry out my new duties with the help and support of the Officers and Council."

The President said that all were very grateful to Mr. Lousley and to Mr. Swann for undertaking these burdens.

Mr. Ash thought that the reasons given for Miss Campbell's wish not being granted were inadequate, and that more help could have been given her. He wished to protest at the decision, and said that the situation was "tragic", as, unless they were careful, the Society would lose all its Officers. The President replied that Council had discussed the matter thoroughly, and their decision (stated above) had been come to with regret.

Mr. Lousley and Mr. Swann, proposed by Prof. Tutin and seconded by Mr. Alston, were then elected Honorary General Secretary and Honorary Treasurer respectively.

M. S. CAMPBELL.

ELECTION OF HONORARY EDITOR AND HONORARY FIELD SECRETARY.

Dr. E. F. Warburg and Dr. J. G. Dony were re-elected Honorary Editor and Honorary Field Secretary respectively, on the proposition of Mr. R. A. Graham, seconded by Mr. A. H. G. Alston.

ELECTION OF FIVE MEMBERS OF COUNCIL.

The following were five nominations for members of Council:—Mr. G. M. Ash, Mr. J. F. G. Chapple, Mr. D. H. Kent, Mr. J. E. Raven and Miss C. M. Rob. On the proposition of Dr. Warburg, seconded by Prof. Tutin, the above five members were elected.

ELECTION OF TWO HONORARY MEMBERS.

The President then said that there were two nominations for Honorary Membership, Miss M. S. Campbell and Lady Davy. Of Miss Campbell he had already spoken. Lady Davy was one of our "oldest" and keenest members, and it would be a pleasure to honour her for all the work she had done. On the proposal of Mr. Ash, seconded by Dr. Warburg, both members were unanimously elected.

ANY OTHER BUSINESS.

Dr. Dony announced that there were still a few vacancies for the Quendon Meeting. He also said that he had so far received only eight applications for the Manchester Meeting, and it was urgent that more should apply.

Miss Campbell stated that it had not so far been possible to fix a date for the official transplanting of *Schoenus ferrugineus*, as the water level in Loch Tummel had been raised temporarily at short notice. Dr. Berry had sent a representative who moved a number of plants to the new site. It was expected that the water would be drawn off before the level of the Loch was raised to its new height permanently, and she would give notice of further arrangements as soon as possible to those members who had offered to help in the removal of plants.

Mr. Rose suggested that there should be Regional Secretaries who might take some of the work off the Secretary in such matters as excursions and conservation of local plants. Miss Campbell stated that such duties were already undertaken by Local Secretaries and/or Recorders.

The President thanked members who had attended and hoped that they would all have a successful year and be able to report progress at the end of it.

Mr. Ash thanked the President for presiding.

A vote of thanks was passed to the Linnean Society for the use of their rooms.

J. E. L.
W. R. P.

ANNUAL GENERAL MEETING, 14th April 1951

The Annual General Meeting was held in the Rooms of the Linnean Society, Burlington House, Piccadilly, at 2.15 p.m., on 14th April 1951.

The President, Mr. J. S. Gilmour, was in the Chair and 80 members were present.

The Minutes of the last Annual General Meeting were read and confirmed.

The Reports for the year 1950 of the Honorary General Secretary, the Honorary Treasurer, the Honorary Editor and the Honorary Field Secretary, which had been circulated, were adopted.

The President expressed his thanks and the thanks of the meeting to the Officers and Committees who had worked so hard during 1950, and noted with satisfaction the much better financial position in which the Society now found itself compared with a year ago.

ALTERATION OF RULES:—The following alterations of Rules were proposed:—

Rule 3 (a), for "one or more Vice-Presidents . . ." read "not more than four Vice-Presidents". Rule 3 (d), substitute "The President and Vice-Presidents shall be elected to serve for a term of two years and shall not be eligible to serve for a period of more than four consecutive years; the other Officers shall be re-elected annually and shall be eligible for re-election each year. Nominations for Officers shall be made by the Council for election at the Annual General Meeting". Rule 3 (e), substitute "The elected members of the Council shall be elected at the Annual General Meeting; four of the elected members shall retire every year by rotation in order of seniority; the seniority of members to be determined by drawing lots at the time of their election. Retiring members shall not be eligible for re-election until the next Annual General Meeting". Rule 19, delete last sentence. Rule 23 (a), delete last sentence and substitute "The Honorary General Secretary, in consultation with the President, may, if necessary, call a meeting of the Council without notice immediately after the Annual General Meeting". Rule 23 (c), after "The Council may" in line 1, add "each year".

All the alterations were carried unanimously.

ELECTION OF OFFICERS:—President—Mr. Gilmour expressed his gratification and pleasure at having presided over the Society during a time when we had made so much progress. He thanked all Officers, Committees and members for all their help and wished the Society the best of luck in the future. Canon C. E. Raven had been nominated by Council for the post of President of the Society for 1951, and he had great pleasure in proposing him, adding "We could have no more fitting President". Canon Raven was elected unanimously with applause. He then occupied the Chair and expressed great pleasure at the honour done him; he felt somewhat overwhelmed, but hoped to be able to help the Society to continue in its course of successful development and expansion.

Vice-Presidents—Dr. R. W. Butcher, Mr. J. F. G. Chapple and Mr. J. S. L. Gilmour had been nominated and were unanimously elected.

Honorary General Secretary, Honorary Treasurer, Honorary Editor and Honorary Field Secretary—Mr. J. E. Lousley, Mr. E. L. Swann, Dr. E. F. Warburg and Dr. J. G. Dony, who had been nominated, were unanimously re-elected to these posts respectively.

Members of Council—There were six vacancies. Eight nominations had been received. On a ballot being taken, the following were elected:—Mr. R. D. Meikle, Dr. D. H. Valentine, Prof. D. A. Webb, Dr. J. Heslop-Harrison, Dr. R. C. L. Burgess and Mr. E. Milne-Redhead. Their order of seniority for retirement is as above.

ELECTION OF HONORARY MEMBERS—Council recommended the following: Dr. R. Lloyd Praeger, Mr. W. C. R. Watson and Dr. Ir. A. W. Kloos, Jr. These were unanimously elected.

ANY OTHER BUSINESS—Mr. G. M. Ash made a short speech saying he was sure the meeting felt that, before his departure, the thanks of all members should be expressed to Mr Gilmour for all his patience, tact and efficiency which had inspired such great confidence, and had so greatly helped on the successful development of the Society. Applause. Thanks were also expressed to the two retiring Vice-Presidents.

The President expressed the warm gratitude of members to the lecturers in the morning, and to the Linnean Society for the use of their rooms.

OFFICERS' REPORTS FOR 1950**HONORARY GENERAL SECRETARY'S REPORT FOR 1950.**

(This report covers the period January to March, 1950, when Miss M. S. Campbell was Hon. General Secretary, in addition to the remainder of the year during which I served in that capacity.)

During the first quarter of 1950 the outstanding activity of the Society was preparation for the Conference on "Aims and Methods in the Study of the Distribution of British Plants" which was held on March 31st and April 1st. This, our second Conference, was attended by some 140 members and guests and the papers and discussions attained a high standard. A Report has been edited with a view to early publication. Professor A. R. Clapham's proposal that consideration should be given to the preparation and publication of a series of distribution maps of the British Flora was discussed by the Council at their meeting on May 11th and a Committee was appointed to consider how it could be implemented. A particularly pleasing feature of the Conference was the participation of foreign botanists. We are grateful to all those who assisted with the arrangements and especially to Dr J. G. Dony who carried out the general organisation and to Mr W. R. Price who undertook much of the laborious secretarial work.

The same two officers were mainly responsible for the very successful Exhibition Meeting which was attended by 110 members and friends on November 25th. At both functions it was evident that the proportion of young botanists attending our meetings is increasing—a tendency which augurs well for the future of the Society.

A very gratifying aspect of our affairs in 1950 has been an increase in membership unprecedented in the history of the Society. During the year our membership increased from 498* to 602. As we had taken the opportunity of correcting a long standing anomaly which resulted in a deduction of 6 from the membership total (see Assistant Secretary's Report below), this was an actual net gain of 110—which compares with 12 for 1949, and 22 for 1948. A substantial part of this very satisfactory increase is due to the activities of the Advertising Committee appointed in May. They have sent out a total of 1568 circulars (706 to individuals and 862 to institutions) and in addition over 1500 leaflets have been circulated with copies of the *Museums Journal* and *Transactions of the British Bryological Society*, for which we must express our appreciation of the kind co-operation of their editors. Besides the increase in membership this campaign has resulted in 12 additional standing orders for our publications through booksellers. It is still much too early to judge what the total response will be, but there

*Corrected from 497 in the 1949 Report.

is no doubt that by introducing *Watsonia* to libraries and individual botanists on a wide scale the Advertising Committee have rendered a valuable service which was overdue.

In addition to the source mentioned, many new members have been added through the personal recommendation of those already subscribing to the Society. It cannot be said too often that the present level of publications and other activities can only be maintained in the face of rising costs if our membership increases to an economic level. It is hoped that every member will assist by introducing friends to the Society—to the mutual advantage of those friends and the Society.

The Field Meetings, with the exception of the one to Quendon, have not been quite so well attended this year. Nevertheless they have been characterised by an exceptionally strong spirit of co-operation and have proved quite as instructive and enjoyable as those of past years.

Our publications have been issued regularly and the first volume of *Watsonia* was concluded with the issue of Part VI with index and title-page. Dr Warburg is to be very warmly congratulated on having maintained the scientific standard of our journal which is now well on its way to establishing a high reputation. We are grateful to the Royal Society for a grant of £200 towards the cost of *Watsonia*.

During the year the Society has taken an active part in measures directed towards the conservation of the British flora. We have made representations in connection with threats to *Orchis simia*, Upper Teesdale, Newborough, Warren and other areas. Following a suggestion communicated to the Conference by Capt. Cyril Diver, Director-General of the Nature Conservancy, the Society has entered into close collaboration with his official organisation and it is anticipated that this will prove an important step in furthering our object of the conservation of the British flora.

My own field work included a visit to Yorkshire in May when I was able to discuss the threat to Upper Teesdale from the extension of the tank range at Warcop with local residents interested in protecting the rare plants that grow there. In July, I visited Unst, Yell and Mainland in the Shetlands and was able to see nine of the ten special *Alpestris* hawkweeds. A fortnight in August was spent in the Channel Isles and many interesting plants were seen in Guernsey, Alderney, Sark and Herm.

The report of the Hon. General Secretary for 1949 included special reference to the valuable help given to the Society by Mr A. J. Wilmott, who died suddenly on January 27th this year. His death is the most serious loss of an outstanding supporter which the Society has suffered for many years. A full obituary notice will appear in the next number of *Watsonia* but I should like to take this opportunity of saying how much his presence and help has been missed during the past year.

During 1950 the Society was kindly represented at the meeting of the British Association at Birmingham by Dr R. C. L. Burges, at the Seventh International Botanical Congress at Stockholm by Mr S. M.

Walters, and at the Alpine Excursion of the Société Botanique de France by Miss M. S. Campbell. Messrs R. Graham and W. R. Price have made special journeys in connection with our work on conservation.

It is impossible to name individually all the people who have been so generous in assisting the Society during the year but I should like to express personal thanks especially to the following:—the President, Mr J. S. L. Gilmour, for his endless patience and tact in dealing with difficult problems; to the Hon. Treasurer, Mr E. L. Swann, whose duties have increased in proportion to the decrease in his financial anxieties with the improvement in our membership figures; to the Hon. Editor, Dr E. F. Warburg, and the Hon. Field Secretary, Dr J. G. Dony, already mentioned; and to the Hon. Assistant Secretary, Mr W. R. Price, for relieving me of much detail work. In addition I should like to thank all members of Council for their support of the Society and for maintaining such an excellent record of attendances on the five occasions the Council has met during the year.

J. E. LOUSLEY.

December 31st, 1950.

ASSISTANT SECRETARY'S REPORT FOR 1950.

During 1950, 129 new members joined the Society, this being 83 more than in the previous year. The following are the monthly totals of new members:—Jan. 4, Feb. 14, March 9, April 7, May 7, June 6, July 6, Aug. 5, Sept. 11, Oct. 27, Nov. 16, Dec. 17. New members as a result of the work of the Advertising Committee started to come in in September. Of the new members, 101 were Ordinary Members, 22 Subscriber Members, 5 Junior Members and 1 Family Member.

Losses totalled 25: seven members resigned; we lost eight by death, three ceased to be members under Rule 6 (d), six foreign institutions were removed from the Honorary Members List and put on the Exchange List, and one member was transferred to the Standing Orders List (neither of these lists are included in the List of Members).

Total Membership at 31st December 1950 was 602, this being 104 more than in the previous December.

We deeply regret having to record the deaths of the following:—L. A. W. Burder, The Duke of Devonshire, Prof. M. L. Fernald (Hon. Member), M. C. A. Foster, Miss M. Garner-Richards, B. E. Livingstone (Hon. Member), Miss M. Taylor, and A. J. Wilmott (Hon. Member).

New Ordinary Members are:—E. S. Andrew, Mrs A. Bolitho, R. A. Boniface, Miss V. M. Boon, M. Borrill, R. A. Boyd, Miss O. E. Brett, P. D. Broad, J. M. Bruce, C. J. Bruxner, J. R. Cadman, Dr E. O. Callen, C. P. Castell, Dr V. H. Chambers, Dr S. E. Chandler, Lt.-Col. J. Codrington, T. G. Collett, C. S. Colman, D. E. Coombe, Miss F. E.

Crackles, R. W. David, H. B. Davies, Mrs M. L. Davis, Capt. C. Diver, A. J. Dodd, Dr A. G. Erith, W. E. Farenden, J. C. Gardiner, Mrs G. M. Gibson, Dr H. Gilbert-Carter, Dr M. B. E. Godward, Miss V. Gordon, F. C. G. Gough, Mrs H. Gough, P. Greenfield, Miss C. Gurney, M. K. Hanson, Miss I. R. G. Hart, Rev. D. M. Heath, Ian Hepburn, J. N. Hepper, A. C. Herrick, V. H. Heywood, R. Howarth, Mrs M. S. Hunter, J. H. Jameson, L. N. Kidd, Dr Ir. A. W. Kloos, Jr., J. H. Lavender, G. H. M. Lawrence, Mrs K. H. Le Sueur, G. A. Matthews, Capt. A. J. Maudslay, D. N. McVean, P. H. Meadows, Miss E. M. Medwin, Miss C. E. Metcalfe, Miss M. E. Milward, P. J. Newbould, P. M. Newey, Miss M. Norton, Dr D. Patton, P. B. Pitman, D. L. H. Porter, M. C. F. Proctor, Miss J. P. Pugh, R. C. Readett, J. Richardson, A. G. Robertson, A. J. Rook, Miss E. M. Rosser, Dr S. P. Rowlands, H. Rowntree, Mrs B. H. S. Russell, R. E. Sandell, Mrs N. Saunders, R. P. Scase, Miss M. A. R. S. Scholey, E. Scott, Lt.-Col. F. H. Simpson, D. C. Smith, Mrs M. Southwell, A. W. Spillett, H. Spooner, W. H. Spreadbury, Mrs R. M. Sworder, Sir A. G. Tansley, Mrs S. E. Taylor, Miss M. I. Tetley, W. L. Theobald, D. Walker, R. Waterfield, Dr E. V. Watson, G. E. West, F. White, Mrs M. Whitehouse, Dr R. J. Williams, K. R. Wooster, Mrs A. G. Wright, B. Young and Miss B. M. Young.

New Junior Members are:—M. R. Chandler, B. E. Collins, A. C. Jermy, Miss T. Willan and Miss B. A. Wilson.

New Family Member:—Mrs J. Farenden.

New Subscriber Members are:—Birmingham University, British Empire Naturalists' Association, Jardin Botanique (Brussels), California Academy of Sciences, Grassland Research Station (Drayton), Groningen University, Islington Public Libraries, King's College (Newcastle), Maidstone Corporation Museum, Nature Conservancy (Edinburgh), Nature Conservancy (London), Oldham Central Public Library, Ottawa National Museum, Pomona College (California), Roberough Library (Exeter), Royal Irish Academy (Dublin), Rugby School Nat. Hist. Society, Smithsonian Institution (Washington), Southampton University College Library, Swansea University College, Uppsala Kungl. Lantbrukshögskolan, Library of State College (Washington).

W. R. PRICE.

December 31st, 1950.

HONORARY TREASURER'S REPORT FOR 1950.

GENERAL FUND.

To Balance from 1949 ...	£146 18 6	By Printing <i>Distributor's Report</i> , 1949 ...	£23 15 0
„ Interest for 1949 on Post Office Savings Bank ...	12 4 0	„ Notional Interest transferred to Publications Fund ...	10 2 6
„ Receipts from Advertisements ...	1 15 0	„ Hire of Rooms for Council and Committee Meetings ...	8 0 3
„ Subscriptions received during the year ...	589 18 5	„ Carriage on portrait of J. G. Baker to Linnean Society's Rooms ...	1 10 0
		„ Postages and Petty Expenses—	
		Hon. Gen. Sec. (M.S.C.)	£8 2 6
		Hon. Gen. Sec. (J.E.L.)	11 5 10
		Hon. Treasurer (J.E.L.)	6 8 11
		Hon. Treasurer (E.L.S.)	4 0 0
		Hon. Asst. Treas. (E.L.S.)	3 0 0
		Hon. Editor	3 0 0
		Hon. Assist. Secretary	8 8 7
		Hon. Distributor	1 9 1
			45 14 11
		„ Cheque Book ...	0 10 0
		„ Printing <i>Year Book</i> , 1950, and postages thereon ...	108 7 3
		„ Preparing Drawing of <i>Victoria regia</i> for Year Book ...	1 1 0
		„ Duplicating Minutes of Meetings ...	5 5 9
		„ Officers' Expenses ...	13 5 0
		„ Fire Insurance on Publications, etc., at Yardley Lodge ...	1 5 0
		„ Advertising Campaign ...	17 15 4
		„ Telephones ...	1 0 6
		„ General Printing Stationery, etc. ...	95 19 8
		„ Honorarium to Assistant Parcelling Publications	1 0 0
		„ Transfers—	
		To Journal Fund £200	
		To Publications Fund ...	100
			300 0 0
		„ Balance ...	116 3 9
			£750 15 11
			£750 15 11

JOURNAL FUND.

To Balance from 1949	£211 16 8	By Printing <i>Watsonia</i> and postages, etc., thereon—	
„ Transfer from General Fund	200 0 0	Vol. I, Part IV	£105 14 0
„ Grant from Royal Society	200 0 0	Part V	105 6 3
„ Sales of Reports and Reprints	89 12 3	Part VI	145 5 11
„ Balance of Miss Trower's Fund	9 11 1	Vol. II, Part I (part payment)	75 0 0
			£431 6 2
		„ Kraft Packing Paper for use at Yardley Lodge	3 7 6
		„ Corrugated Paper for use at Yardley Lodge	1 5 0
		„ Postages on Parcels from Yardley Lodge	4 2 4
		„ Balance	270 19 0
	<u>£711 0 0</u>		<u>£711 0 0</u>

PUBLICATIONS FUND.

To Balance from 1949	£405 1 11	By Binding 62 Copies of <i>Comital Flora</i>	£8 10 6
„ Interest for year on initial balance at 2½% (per General Fund)	10 2 6	„ Binding 12 Copies of <i>Comital Flora</i> (interleaved)	7 16 0
„ Sales of <i>Comital Flora</i> and <i>British Plant List</i>	46 15 1	„ Balance	575 5 3
„ Sales of <i>Flora of Northants</i>	5 17 5		
„ Sales of 1948 Conference Report	23 14 10		
„ Transfer from General Fund toward 1950 Conference Report	100 0 0		
	<u>£591 11 9</u>		<u>£591 11 9</u>

FIELD WORK COMMITTEE'S FUND.

To Balance from 1949	£11 9 0	By Loss on Conference	£12 4 6
„ Profit on Field Meetings	5 9 8	„ Balance	7 8 1
„ Profit on Exhibition Meeting	2 13 11		
	<u>£19 12 7</u>		<u>£19 12 7</u>

LIFE MEMBERS' FUND.

To Balance from 1949	£145 12 0	By Balance	£145 12 0
	<u>£145 12 0</u>		<u>£145 12 0</u>

MISS TROWER'S FUND.

To Balance from 1949	£9 11 1	By Transfer to Journal Fund toward cost of illustrations, <i>Watsonia</i> , Vol. 1, Part VI	£9 11 1
	<u>£9 11 1</u>		<u>£9 11 1</u>

BENEVOLENT FUND.

To Balance from 1949	... £41 3 6	By Balance	... .. £41 3 6
	<u>£41 3 6</u>		<u>£41 3 6</u>

BALANCE SHEET as at 31st December 1950.

General Fund	... .. £116 3 9	500 National Savings Certifi-	
Journal Fund	... .. 270 19 0	cates at cost	... .. £400 0 0
Publications Fund	... .. 575 5 3	Cash at Bank	... .. 58 12 5
Field Work Committee's		Deposit with Post Office Sav-	
Fund	... .. 7 8 1	ings Bank	... .. 700 9 0
Life Members' Fund	... .. 145 12 0		
Benevolent Fund	... .. 41 3 6		
Cheques issued but not yet			
presented	... .. 2 9 10		
	<u>£1159 1 5</u>		<u>£1159 1 5</u>

Examined and found correct,
January 21st, 1951.

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

The results of the energetic steps which have been taken during the past year to bring our Society to the notice of those interested, both in this country and abroad, are reflected in the great increase of business transacted. Thanks to the record of new members the increase in the income on both the General and Journal Funds is correspondingly higher but the general expenses have also risen to unprecedented figures. If we are to carry out our full programme without making inroads on our assets we must be assured of a membership of, at least, 700.

In publications members have this year received *Watsonia*, Vol. I, Parts iv, v and vi; a *Year Book*; and a copy of the 1949 *Distributor's Report*. During the year we spent £563 on these publications—three parts of *Watsonia*, £356; *Year Book*, £108; *Distributor's Report*, £24—and the balance of £75 has been paid towards the cost of *Watsonia*, Vol. II, Part i.

The combined income of the General and Journal Funds amounts to £693 but the unprecedented figure of £190 for general expenses shows that we must continue to support the campaign for new members if we are to bridge the gap between income and expenditure. Considerable concern is felt at the very high figure for general printing and some explanation is necessary. The changes in officers in 1950 brought exceptional demands for new stationery. These have been met and it is hoped they will not recur for some time. The increased activity and drive for new members has resulted in heavy costs for Prospectuses, Rules and Application Forms. These additional items, coupled with the rapidly rising charges for printing, account for the total printing charge of £96. The increased Postages and Petty Expenses are not so alarming. It will be seen that the Hon. General Secretary and the Hon. Assistant Secretary have borne the brunt of the increasingly large

correspondence. The balance may be attributed to the membership drive and from the increased foreign correspondence now at higher rates. Through an unfortunate chain of circumstances as a result of which the attendance did not reach the total expected for luncheon during the Conference the Society incurred a loss of £12 4s 6d.

It will be noticed that the balance of Miss Trower's Fund has been transferred to the Journal Fund to help in defraying the costs of illustrations in *Watsonia*, Part VI.

Members will recall that the Publications Fund was originally set up to accumulate balances from sales of both the *Comital Flora* and the *British Plant List* earmarked for new editions of these works. As the stock of both books is now low these balances are likely to be required as soon as the necessary revision can be undertaken. Next year it will be necessary to debit this fund with the cost of the Conference Report (say £200) but it is expected that sales of this and the earlier Conference Report will eventually cover this cost. Once again the Royal Society has come to our aid and made a generous grant of £200 towards the cost of *Watsonia* and this has been credited to the Journal Fund.

The total amount outstanding to the credit of members at the end of the year in respect of subscriptions paid in advance amounts to £113 18s.

Now that the Society no longer has an Hon. Assistant Treasurer may I ask that members pay their subscriptions as promptly as possible, thus saving, not only the necessity of reminders, but also expenses in stationery and postages.

I would like to express my sincere thanks to Mr J. E. Lousley, the previous holder of this office, for his expert guidance in many matters of finance on which I have so frequently sought his advice. To Mr C. J. Collenette, our Honorary Auditor, I would also express my warm thanks for his valuable assistance with the yearly accounts.

December 31st, 1950.

ERIO L. SWANN.

REPORT OF THE HONORARY EDITOR FOR 1950.

Three parts of *Watsonia* appeared during the year—in January, June and December—thus completing Volume I. The delay in the last part was partly due to the Editor's absence in Scandinavia for two months and partly to the necessity for arranging the lay-out of the Title Page, Index, etc.

Material for Volume II, Part I, is in the printer's hands and galley proofs of some of it have been received.

The design of the cover continues to receive attention but no final decision has yet been reached.

It is gratifying to report that the advertising campaign initiated by the Council has produced such satisfactory results. I would like to thank the members of the Advertising Committee for their admirable

work. It would seem that the printing of a considerable number of the early parts in addition to those immediately required has been justified.

We are also extremely indebted to the Royal Society for increasing their grant to £200. This should enable us to maintain and perhaps improve the standard of *Watsonia*.

There has been a certain amount of criticism about the contents of *Watsonia*. It has been suggested that too little is published of interest to our less scientifically minded members. I should be very glad, while maintaining our scientific standard, to publish more material of this type, but it is, at present, not coming in. One suggestion that has been made is that accounts of areas of particular interest might be published. I should be glad to receive any such accounts.

I should also very much welcome contributions to 'Plant Notes.' These have become largely a place for recording new aliens—an unsatisfactory state of affairs. Any note of interest on any aspect of any plant in the British Flora will be welcome, especially if the plant is a common one. Communications of a similar character but not on individual plants will also be welcome for inclusion in 'Short Notes.'

Mr J. E. Lousley has kindly consented to edit the report of the Conference held in 1950 and this is now in the hands of the printers.

In conclusion I would like to thank the members of the Publications Committee for their continued help and support.

December 31st, 1950.

E. F. WARBURG.

HONORARY FIELD SECRETARY'S REPORT FOR 1950.

Seven field meetings were arranged for this year; but one with Manchester University as headquarters had to be cancelled as insufficient members applied to attend. The best-attended meeting was the one-day visit to Quendon following the Spring Conference, when 63 members and friends attended. The total attendance at all meetings was 187, including 20 visitors. During the year 92 members attended meetings.

The meetings which were held were very successful and our thanks are especially due to the leaders of these meetings, to the Isle of Man Natural History and Archaeological Society, the Trustees of the Manx National Museum, Mr E. Milne-Redhead, the official representative, and Mr D. E. Allen for their help in making the visit to the Isle of Man so enjoyable, to Prof. Eric Ashby and Dr W. O. Howarth who prepared a great deal in anticipation of our visit to Manchester, and to the Lincolnshire Naturalists' Union for their ready co-operation during the visit to North Lincolnshire. Reports of some of the meetings will appear in the *Year Book* for 1951 and reports of the rest in subsequent issues.

Seven meetings have been arranged for 1951 and the printed programme will be in the hands of members in a few days.

A most successful conference on " Aims and Methods in the Study of the Distribution of British Plants " was held on March 31st and April 1st. It was well attended, as was an equally successful Exhibition Meeting, held in November. A great deal of the detail of organisation of both these functions was carried through most efficiently by Mr W. R. Price. Fuller reports may be read elsewhere.

December 31st, 1950.

J. G. DONY.

FIELD MEETINGS, 1949

PROGRAMME.

April 1st—British Museum (Natural History).
May 20th to 23rd—Taunton.
May 28th—Birmingham District.
June 11th—Breadalbane (Perthshire).
June 24th to July 4th—Carlisle and District.
July 15th to 19th—West Norfolk.
August 13th—Brook (Godalming).
September 17th—Basingstoke Canal.

APRIL 1st. BRITISH MUSEUM (NATURAL HISTORY).

Leader: Mr A. H. G. ALSTON.

About 30 members of the Society visited the Natural History Museum on 1st April, where a special exhibit had been put out in the General Herbarium. The exhibit dealt mainly with the work of the older British botanists, and included some letters from John Ray. Dr J. Ramsbottom, the Keeper of Botany, made an opening speech in which he described the recovery of the Department after the damage done during the war.

MAY 20th to 23rd. TAUNTON.

Leader: Mr E. G. NEAL.

On the evening of 20th May 30 members and 3 guests assembled in the County Hotel, Taunton, to meet the leader, Mr E. G. Neal, who, although not a member of our Society, nobly undertook to show us some of the botanically interesting areas near Taunton.

Well known to some of us through his classic work on the badger (*Meles meles* L.), Mr Neal is an all-round naturalist, and the Society must consider itself fortunate to have had his extensive knowledge of the botany and ecology of the district placed at its disposal.

Both the Vice-President, Mr A. H. G. Alston, and the Hon. General and Field Secretary, Miss M. S. Campbell, were present, and the visiting members were introduced to Mr A. D. Hallam, who kindly assisted Mr Neal with the leadership. The programme for the week-end was outlined and the topography and geology as well as the botany of the places to be visited were briefly described.

The following morning, in fine weather, members assembled at the bus station and went some three miles S.E. of Taunton to the turning for Thurlbear, a hamlet to the north of the Blackdown Hills. The party then proceeded on foot, first along pleasant lanes, and later up a steep,

rather wooded track to the top of a low hill of Lower Lias. The flora was a typically calcareous one, and many species, distinctly local in vice-county 5, South Somerset, were observed.†

A list of all the identifiable species of phanerogams and vascular cryptogams was made. No particularly rare species was observed, but members from the north of the country were pleased to see *Sorbus torminalis* and *Rubia peregrina*, whilst *Viscum album*, growing in an overgrown hedge of *Crataegus monogyna*, is worthy of mention. *Luzula* × *Borreri*, the natural hybrid between *L. Forsteri* and *L. pilosa*, was found in some quantity with both parents in the wood on the summit east of Thurlbear. A strange plant to find with calcicole species in a derelict arable field was *Melampyrum pratense*.

On Saturday evening some of us walked along the canal towards Bathpool, and found *Potamogeton densus*, *P. perfoliatus* and *P. crispus* in great quantity. *Carex Otrubae* and *C. riparia* var. *gracilescens* were also collected and specimens are in the Kew Herbarium. Another *Potamogeton* was seen in profusion in the River Tone in the parish of Bishop's Hull Without, but it was not possible to collect material for determination.

On Sunday, 22nd May, the party went by coach to visit the famous sand dunes and foreshore at Berrow (v.-c. 6). Mr Neal was unable to be present on this day, but the party was ably led by our member, Dr J. H. Davie, who came over from Clifton for the day, bringing with him some keen members of the Clifton College Natural History Society. Dr Davie had prepared an account of the changes which had taken place in the salt marsh in recent years, largely due to the spread of the rice-grass, *Spartina Townsendi*. This account, together with sketch-maps, was distributed to all present, thus enabling them to understand more fully the significance of the vegetation they were to see. To those of us who had not been to Berrow for many years, the abundance of *Hippophaë Rhamnoides* came as a shock. Where years ago the rich and interesting sand-dune flora was flourishing, now there is a monotonous impenetrable thicket of sea buckthorn. It seems that the spread of *Hippophaë*, which was slow at first, has recently gained momentum and has now got completely beyond control, causing serious damage to the native dune flora. It is hoped that other areas of sand-dunes around our coasts may escape the colonization of *Hippophaë*, and Local Secretaries are asked to inform the General Secretary of any noticeable increase of this plant on sand-dunes in their areas.

The dune flora of Berrow is well known, and no useful purpose would be served by listing the species observed by the party on this occasion. Suffice it to say that many members were enabled to see plants that they had not seen before, and others enjoyed renewing old acquaintances. *Plantago lanceolata* var. *anthoviridis* was observed on the

†Both this locality and that visited near Blagdon on Monday fall into District III, as used by Murray. *Flora of Somerset*, p. xx: 1866.

dunes, growing with var. *lanceolata*, whilst a form of *Lamium album* with a pink upper lip to the corolla was noticed near Berrow Church. Conditions for botanizing were, however, not particularly good, owing to a strong, cool wind, and later rain turned the party back towards the road, where the coaches were waiting. Before an excellent tea, which was provided at Burnham, some members of the party examined the salt marshes around the mouth of the River Bure, whilst others paid a short visit to Brean Down.

On Monday the members and their friends again made use of public transport, which took them to the hamlet of Blagdon, some four miles south of Taunton and on the north slope of the Blackdown Hills, and about four miles from the Thurlbear localities visited on the Saturday. Here the ground is considerably higher, and as one climbs the escarpment one passes from the alkaline soils of the Lower Lias to the acid soils of the Greensand. The party visited Prior's Park Wood, and, following the track up the valley, reached Hawk's Moor, where a flora was seen very different from anything seen on Saturday. The transition from alkaline to acid soil was very marked, and soon after reaching the Greensand, a most interesting alder wood was seen. In great quantity on the sloping, boggy floor of this wood were magnificent plants of *Athyrium filix-femina*, and in between was an association of *Caltha palustris*, *Viola palustris* and *Valeriana officinalis*. On the drier slopes *Dryopteris Borreri* was conspicuous, as were foxgloves, which had been seen neither lower down nor at Thurlbear. Above, a typical flora of a damp heath was in evidence. At the lunch interval a hearty vote of thanks to the Leaders was passed. The party then gradually dispersed, as some of us had to catch early trains at Taunton. As was to have been expected in this district, no startling discoveries were made, yet a most enjoyable week-end was spent botanizing in truly delightful country, whilst the arrangements for the meeting, so admirably planned by the leader and his helpers, left nothing to be desired. Thanks must be expressed to Miss M. McCallum Webster for the lists of species made by her during the meeting.

A list of all the species of vascular plants noted in the various habitats, both at Thurlbear and Blagdon, has been prepared, but owing to editorial difficulties it has been impossible to publish it here. It is, however, hoped that it may be published elsewhere.

E. M.-R.

MAY 28th. BIRMINGHAM DISTRICT.

Leader: Dr R. C. L. BURGESS.

The arrangements for this day excursion were carried out by the Botanical Section of the Birmingham Natural History Society. The main object of this meeting was to enable Midland members of the B.S.B.I. to visit, in the company of local botanists, an interesting botanical district. The well-known Hartlebury Common was selected,

chiefly because of the large number of sand-loving plants uncommon in the Midlands generally which are to be found there in a small circumscribed area, and also because it was of easy access by car from the South and West Midlands. The total number attending was 36, 21 of whom were members of the B.S.B.I. and the remainder were members of the Birmingham Natural History Society. The common was well explored, but no new records were made; this was not surprising over such well-worked ground. There were hundreds of plants of *Silene conica* in its well-known locality by the roadside, despite the forebodings of earlier botanists that road work might soon destroy this Worcestershire rarity.

A short visit was paid later in the day to Grimley on Severn, where a few of the more interesting plants of the Severn Valley were seen. In a pond at Grimley, Prof. T. G. Tutin demonstrated to an eager audience all three species of the fote grass, *Glyceria fluitans*, *plicata* and *declinata*. This excursion gave an opportunity for the less experienced local botanists to meet, in the field, botanists with an extremely wide and varied knowledge of British botany. I believe that this excursion was well worth while for this reason alone.

R. C. L. B.

JUNE 11th TO 12th. BREADALBANE.

Leaders: Miss M. S. CAMPBELL and Mr THOMAS POORE.

The meeting, arranged primarily for Scottish members, took place in the Aberfeldy district on Saturday, June 11th, with an optional second day.

The following members took part:—Mrs Bull, Miss Milne Farquharson, Mrs Gibby, Miss Kennedy, Miss McCallum-Webster, Mrs Boyd Watt, and Messrs W. D. Ogilvie, R. M. Payne, M. E. D. Poore, H. G. Watson, and A. J. Wilmott.

We were very pleased to welcome as guests:—Miss Dunk, Miss Jauncy, Mrs MacBrinn, Mrs Ogilvie, Mrs Poore and Messrs J. Aitken, J. Crapper, Len Fullerton, D. Spence, J. White, J. Wood and also Mr T. Poore, who acted as joint leader.

The exceptionally beautiful day lured all participants to the slopes of Schiehallion, and the more gentle alternative of a walk along the banks of Tay and Lyon was abandoned. The party started together from Braes of Foss but was later divided into groups and a few people set out to reach the summit.

In spite of the early date the early season displayed a number of "alpine" in bloom and others in an unusually advanced state. *Saxifraga aizoides* in sheltered places was among the former as was *Tofieldia palustris*, frequent in flushes around the half-way line. *Rubus Chamaemorus*, *Epilobium alpinum* and *Polygonum viviparum* were also seen in flower, as were the purple *Viola Curtisii* in the grassy slopes below Glengoulandie, where the walk was arranged to finish. Rosettes of *Saussurea* leaves were seen on the north face of the shoulder close to a

magnificent patch of *Lycopodium annotinum*. In the heather leaves of *Pyrola rotundifolia* were observed and numerous plants of *Listera cordata* in flower. Tea was taken at Coshieville Hotel.

Unfortunately several people were unable to stay on for the pleasant informal meeting which took place in the Palace Hotel, Aberfeldy, when Mr Wilmott examined and discussed the day's finds.

The optional second day's meeting was arranged with the object of refinding *Thlaspi alpestre* on Ben a' Chuallaich, not known to have been seen there since the collection of the specimen in the herbarium of the Perth Museum.

On the way to the hill a brief stop was made near Dunalastair to view a wooded slope carpeted with *Trientalis europaea* in full flower.

The party was divided into several groups so as to cover as much of the hill as possible and to reach the widely separated limestone outcrops—the specimen's label indicating a calcicole predilection.

Miss McCallum-Webster and Mr D. Spence were the lucky ones finding a colony of about fifty plants with a few bearing flowers. It is hoped that seed may be collected later for an attempt to grow specimens for comparison with plants from other British and foreign localities.

The meeting may be described as highly successful and fully demonstrated the usefulness of concerted effort, and the Scottish members present expressed the hope that a similar meeting should become an annual event.

A number of those coming from a long distance stayed on in the district and saw many of the local specialities in fresher condition than at the usual July visits. Mr Ogilvie found a fine specimen of *Neottia nidus-avis* in Aberfeldy in an old locality, but this species is a rarity in the Highlands and deserves mention.

The co-operation of Perthshire and Angus Naturalists was a very pleasing feature of this meeting. Thanks are expressed to all who helped and especially to Mr Thomas Poore, Mr Duncan Poore and Mr Wilmott for very kind assistance and to Miss McCallum-Webster for making lists of plants seen on both days. 110 species were noted on Schiehallion and 111 on Ben a' Chuallaich, a list of the more interesting from the latter hill is appended.

THE MORE INTERESTING SPECIES SEEN ON BEN A' CHUALLAICH, 12th JUNE 1949.

- 2/7 *Thalictrum alpinum* L.
- 37/1 *Arabis hirsuta* Scop.
- 64/3 *Thlaspi alpestre* L.
- 87/2 *Helianthemum vulgare* Gaertn.
- 188/2 *Fragaria vesca* L.
- 185/155 *Rubus Chamaemorus* L. S.
- 189/24 *Potentilla Sibbaldi* Hall. fil.
- 190/19 *Alchemilla alpina* L. S.
- 190/46 *A. filicaulis* Buser. S.

- 199/2 *Saxifraga oppositifolia* L. S.
 220/13 *Epilobium alpinum* L. S.
 296/1 *Galium boreale* L.
 328/5 *Gnaphalium supinum* L.
 617/1 *Oxyria digyna* Hill. S.
 642/3 *Betula nana* L.
 650/18 *Salix herbacea* L.
 715/1 *Tofieldia palustris* Huds. S.
 718/21 *Juncus triglumis* L. S.
 753/14 *Carex capillaris* L. S.
 753/72 *C. pauciflora* Lightf.
 851/3 *Asplenium viride* Huds.

S=Noted on Schiehallion. Of the rest, a number are, however, known to occur there, though there is, I believe, no record of either *Thlaspi alpestre* or *Betula nana*.

M. S. CAMPBELL.

JUNE 24th TO JULY 4th. CARLISLE AND DISTRICT.

Leaders: Miss C. W. MUIRHEAD and Mr J. PARKIN.

The following 23 members took part in this excursion, including some who were present for only part of the time:—Mrs W. Boyd Watt, Hon. Marjorie Cross, Mrs H. R. Davies, Miss G. H. Day, Miss U. Duncan, Mrs J. F. Eastwood, Mr I. W. Evans, Mrs J. Farquharson, Miss L. W. Frost, Miss E. J. Gibbons, Mrs A. N. Gibby, Commander R. D. Graham, Mrs B. Hassall, Mr J. D. Hinde, Miss M. Isaac, Miss M. Knox, Miss B. M. C. Morgan, Miss E. Rawlins, Lady Severn, Mr N. D. Simpson, Miss K. C. Stevens, Mr P. Taylor and Miss O. Wickham. In addition, Mr R. B. Cooke and Mr G. W. Temperley very kindly undertook to guide the excursion in Northumberland, and the party was most grateful to the Rev. J. H. Vine Hall, a non-member, for taking over the leadership on St Bees Head and at Nethertown. Fourteen guests were also present at different times, five of them later joining the Society.

This excursion was arranged with the purpose of assisting in work on a new Flora of Cumberland by visiting areas which had been little worked in previous years (in particular, district 4 of Hodgson's *Flora*), in search of new records, and to confirm old ones wherever possible. Lists of plants known, or presumed to occur in the various localities to be visited, were circulated before the excursion began, and on Friday, 24th June, members met in the evening in the Public Library and Museum, Tullie House, Carlisle, for an informal discussion of plans.

In spite of certain forebodings on the part of both leaders, based on the length of the preceding spell of sunshine, with the exception of one rather wet day, the weather during the whole excursion was quite remarkable, dispelling, it is hoped, some earlier impressions that rain in Cumberland is inevitable.

Saturday, 25th June.

The party left Carlisle at 10 a.m. by bus for Wedholme Flow, a low-lying peat-moss between Kirkbride and Wigton, going on to the moss by the farm of Lawrenceholme. One of the most characteristic plants of the peat mosses at the head of the Solway, *Andromeda Polifolia*, had unfortunately finished flowering, but its abundance was obvious. *Drosera rotundifolia* was frequent, and both *D. longifolia* and *D. anglica* also seen, and *Scirpus pauciflorus* was collected, a plant not hitherto recorded from this bog. Lunch was eaten in the farmyard of Lawrenceholme, where the bus had perforce come to rest, after which the party moved on to Anthorn, on the shores of Moricambe Bay, calling at Longcroft on the way. Here they were met by Mr Dugdale, who is in charge of turf-cutting operations on the marsh, and shown areas of the celebrated Solway turf, with its constituent flora.

At Anthorn, the narrow fringe of salt marsh was examined for a short distance along the coast and *Eleocharis uniglumis* and *Blysmus rufus* collected, neither of these previously known from this marsh, and the former being new to the county. *Limonium humile*, the most abundant species of sea lavender on the coast of Cumberland was scarcely in flower, and *Centaurium umbellatum*, *C. littorale* and *C. pulchellum* were seen, the latter species new to the area and very rare in the county. *Juncus maritimus* was plentiful, and *Carex extensa* and *C. distans* were growing together in turf by the shore, and the sight of several enthusiastic botanists investigating the flora of the salt marsh turf, at close quarters, will long be a most treasured recollection.

From Anthorn the party had to traverse the aerodrome by bus and car on its way to Bowness on Solway for tea, a proceeding found to be fraught with difficulty for the uninitiated. Fortunately, however, when almost on the point of sending out distress signals, rescue appeared in the shape of a bread van, and we left the scene with a certain amount of dignity, in convoy. At Bowness *Blysmus rufus* was seen again by the shore, and *Rorippa sylvestris* and *Sisymbrium orientale* were noted in the village.

Sunday, 26th June.

The party left Carlisle by bus at 2 p.m. for Netherby, famous for its collection of trees, walking through the grounds from the first to the third lodge. *Pyrola minor* was seen near the road and hybrids of *Geum rivale* × *urbanum* were particularly abundant. *Digitalis purpurea* var. *nudicaulis* was also collected. From Netherby the party went to explore mainly the Cumberland bank of the Liddel Water at Penton Lynns, after a picnic tea by the river. Here the river forms part of the boundary between England and Scotland, flowing through a wooded gorge of limestone rock. *Valeriana pyrenaica*, thoroughly naturalised in this district, was seen along the banks with *Cirsium helenioides*, *Campanula latifolia* and *Platanthera chlorantha*. *Melampyrum pratense* var. *hiuns* was the common form of the species, but *M. sylvaticum* was

not found, while *Carex remota*, *C. sylvatica*, *C. pallescens* and *C. laevigata* were abundant, with *Festuca sylvatica*. *Arabis hirsuta* was growing on limestone rocks by the river with *Asplenium viride*, *Phyllitis Scolopendrium* and drifts of *Gymnocarpium Dryopteris*, and *Equisetum sylvaticum* and *E. Telmateia* in damp places of the wood. On the Dumfriesshire bank of the river *Juncus tenuis* was found, but not noted on the Cumberland side.

Monday, 27th June.

In the morning, the party went by bus to Kirkland, under Cross Fell, and here divided, some members going up Crowdunle Beck, crossing Kirkland Fell and descending by Ardale, where they joined the rest of the party who explored the rocks at the head of Ardale. Here there is a considerable intrusion of the basic igneous rocks of the Great Whinsill in the Carboniferous limestone of the Cross Fell escarpment and it is interesting to note certain plants here which are usually calcicole in the county, on both these formations. *Thlaspi alpestre* was found on both whinsill rock and the limestone, with *Arenaria verna*, while *Scabiosa Columbaria* was abundant on limestone at nearly 2,000 ft., an unusually high altitude for this species, with *Sesleria caerulea*, *Helianthemum Chamaecistus* and *Asplenium viride*. *Epilobium alpinum*, in Cumberland known only on Cross Fell, was seen, with the more frequent *E. alsinifolium*, and *Carex lepidocarpa* and *C. demissa* were collected by Ardale Beck.

Tuesday, 28th June.

This was the only day on which rain was encountered, and, according to later reports, it appeared mainly to pursue the Society. Fortunately, owing to the long spell of dry weather Newton Reigny Moss, which lies in a hollow on the Carboniferous limestone, was in quite good condition, i.e. not quaking unduly. *Ranunculus Lingua*, now rare in the county, was seen in flower, with several interesting *Carices*, including *Carex disticha*, *C. diandra*, *C. limosa*, *C. pallescens*, *C. lasiocarpa* and *C. rostrata*, all growing in considerable quantity. *Cladium Mariscus*, long known from this locality, was not in flower this year, and *Schoenus nigricans* was seen, although more scarce than in former years. A solitary specimen of *Epipactis palustris* was growing near the edge of the moss with *Trollius europaeus*, *Trifolium medium* and *Gymnadenia conopsea*. The commonest species of *Salix* seen were *S. atrocinerea* and *S. nigricans*, with *S. fragilis* and *S. pentandra* and the hybrid between them, $\times S.$ *Meyeriana*. After a slightly damp picnic lunch, the party proceeded to Greystoke Park, nearby, and still on the Carboniferous limestone belt. *Ceterach officinarum*, reported from an exposed scar of limestone there, was searched for but not seen. On the open moorland, near the roadside *Pyrola minor* was found, and there were remnants of *Primula farinosa* still in flower, a plant which is quite characteristic of this limestone country and a beautiful sight earlier

in June. *Orchis purpurella* and hybrids with *O. ericetorum* were seen, and by the roadside near Newsham cross roads *Salix pentandra* × *fragilis* (× *S. Meyeriana*), *S. nigricans*, *S. atrocinerea* × *nigricans* and *S. Caprea* × *nigricans* (× *S. latifolia*) were collected. From Greystoke the party continued by bus to Caldbeck for tea, afterwards visiting the old church and investigating the river, before returning to Carlisle.

Wednesday, June 29th.

The party left Carlisle by bus and car for Muckle Moss and Crag Lough, in Northumberland (v.-c. 67). At Muckle Moss, which lies two miles south-east of Crag Lough, led by Mr Temperley and Mr Cooke, the party explored this very famous north-country moss. *Andromeda Polifolia* and *Oxycoccus quadripetalus*, though past flowering, were seen in considerable quantity, with *Rhynchospora alba* and the very rare *Carex paupercula*, a plant which was new to the British flora when originally discovered there. The party then went on to explore Crag Lough. On the basaltic crag above the Lough, *Lycopodium Selago* and *Cryptogramma crispa* were seen, with *Helianthemum Chamaecistus* carpeting the top of the Wall itself. *Hippuris vulgaris* was growing in abundance at the margins of the Lough, with *Equisetum fluviatile*, and the following species of *Potamogeton* were collected:—*P. lucens*, *P. gramineus*, *P. alpinus*, *P. praelongus*, *P. obtusifolius* and *P. pectinatus*. On the return journey, a short visit was made to the limestone rocks of the River Irthing above the Spa Hotel, Gilsland, to see *Saxifraga aizoides* in one of its very few Pennine stations, with *Asplenium viride* and *Equisetum variegatum*. *Chara aspera* var. *subinermis* was found in the river, and in the woods below the Hotel *Melica nutans* and *Circaea canadensis* were seen. From Gilsland the party went on to the Bridge Inn at Lanercost, where a delightful and much-needed tea was waiting.

Thursday, 30th June.

On this day the remainder of the party transferred its headquarters from Carlisle to Cockermouth, visiting Grune Point, Skinburness and the Silloth docks and sandhills *en route*. On arriving at Skinburness the party broke up and worked its way by the sandy shore round the Point, returning by the marsh. *Brassicella monensis* was abundant and *Rosa spinosissima*, which is very fine here, was unfortunately past flowering. *Calystegia Soldanella*, of rather rare occurrence on this part of the coast, was seen, with *Euphorbia Paralias*, *Polygonum Raii* and *Parapholis strigosus* ("Lepturus filiformis"). After a picnic lunch on Grune Point, the party went on to Silloth and explored the docks and sandhills there. Before the war, when grain was imported from the Mediterranean and N. America, and ballast frequently deposited near the docks, a considerable and ever changing population of alien species was to be found. The import of grain has ceased, however, and there are left only those species which have established themselves over a

period of years. *Medicago falcata* is abundant in places on the sandhills, and *Ambrosia artemisiifolia* persists in scattered localities. *Salvia verticillata* and *S. virgata* were both seen and a long-established mass of *Euphorbia Esula*. *Viola Pemeau* was in full flower on the sandhills beyond the Convalescent Home.

Almost immediately on arrival at Cockermouth that evening a most interesting plant was found—*Rumex scutatus*, on a wall top near the river, and since seen in one or two places in the town.

Friday, 1st July.

The party left Cockermouth for Buttermere dale in the morning, one half walking along the south side of Crummock Water, through Scale Hill Woods, the other going on to Gatesgarth and on to Haystacks by the Warnscale path, returning to Buttermere by the south side of the lake. *Thalictrum montanum* and *T. alpinum* were seen in the gill by the track, with *Rubus saxatilis*, *Galium boreale*, *Oxyria digyna* and abundant *Alchemilla alpina*, but with no sign of the almost mythical *A. conjuncta* which was recorded from this area some fifty years ago. *Glyceria aquatica* was seen in Warnscale Gill and *Lobelia Dortmanna* was in flower in both Buttermere and Crummock, while *Carex serotina* and *C. lepidocarpa* × *demissa* were collected beside Buttermere. A single meadow behind the Fish Hotel proved rich in species of *Euphrasia*, producing *E. nemorosa*, *E. borealis*, *E. montana* and *E. Rostkoviana*, while *E. micrantha* was collected near Crummock Water and *E. confusa* f. *albida* on Haystacks. *Circaea canadensis* was found in Scale Woods, but no true *C. alpina*.

Saturday, 2nd July.

The party went by bus to Kells, and, under the leadership of the Rev. J. H. Vine Hall walked along the northern end of St Bees Head to Fleswick Bay. Perhaps the most interesting plant seen was *Vicia sylvatica* var. *condensata*, not previously recorded from Cumberland, and here growing on sandstone cliffs near the quarry. *Crithmum maritimum*, *Limonium binervosum* and *Asplenium marinum* were seen at Fleswick Bay, with very luxuriant *Sanolus Valerandi* and *Carex extensa*. A particularly fine, blue-leaved fescue, *Festuca rubra* var. *pruinosa*, was abundant on the cliffs, with *F. rubra* var. *glaucescens* f. *pubescens*, and *Lemna gibba*, new to the county, was found on dripping rocks at the entrance to the bay.

On returning to Sandwith the party went on to a tarn near Nether-town, along the coast where *Oxyecoccus macrocarpus*, an American species of cranberry, was seen in marshy ground beside the tarn. The plant was first recorded by Mr C. D. Pigott in 1943 and has been reported from Hampshire and Flintshire, the manner of its arrival here being a matter for conjecture. It is growing in association with *Oxyecoccus quadripetalus*, *Menyanthes trifoliata*, *Peplis Portula* and *Glyceria fluitans*. The party then continued its rather hazardous way by bus, reaching Sella Park for a most welcome tea.

Sunday, 3rd July.

It had been hoped that some members of the party would be able to climb Pillar Mountain to see *Potentilla fruticosa* and *Saussurea alpina* in flower, both very rare plants in the county. That day, however, we were afflicted with a bus of uncertain age, which finally succumbed to its infirmities, and could proceed no further, near Mockerkinn Tarn. During the enforced delay, however, *Geranium phaeum* was seen by the roadside, with *Meconopsis cambrica*, *Campanula latifolia*, and *Ceterach officinarum* in a wall near the Tarn, but the Pillar project had to be abandoned owing to lack of time. On arriving at Ennerdale the party divided, working different sides of the lake. *Utricularia intermedia* and *U. minor* were seen near the marshes at the eastern end, with *Sparganium affine*, *Isoetes* sp. and *Nitella opaca*. *Rumex alpinus* was seen by the roadside near Mireside Farm, and *Teesdalia nudicaulis* and *Sedum Telephium* on walls by the lake. *Lamium Galeobdolon*, a plant which appears to be near the northern limits of its distribution in Cumberland and the lowlands of Scotland, was seen in Side Woods. The party at length converged on the Angler's Hotel for tea, returning to Cockermouth, where the excursion officially ended, after a short speech by Mr N. D. Simpson, proposing a vote of thanks to the leaders for running the excursion.

The Leaders would like to express their very sincere thanks to the authorities of the Carlisle Public Library and Museum for their support of the meeting; to Sir Fergus Graham, Mr. Maddock and Captain Howard for permission to visit their estates; to Messrs. Blezard, R. A. Boyd, Cooke, Hinde and Temperley and the Rev. J. H. Vine Hall for their invaluable assistance as guides; to all those who have identified material collected on the excursion; and, above all, to the members of the excursion themselves for their kindness and unfailing co-operation at all times, which added so much to its enjoyment.

C. W. MUIRHEAD.

RECORDS FOR V.-C. 70 ADDITIONAL TO THE FLORA OF CUMBERLAND (1898).

The numbers between 1 and 4 indicate the botanical districts (see Hodgson, *Fl. Cumb.*, 1898); the initials following the records are those of the finders.

Specimens of most of the following are in the Carlisle Museum; additional plants collected by Mr. N. D. Simpson are in his herbarium and indicated by (S).

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| 6/31 | <i>Ranunculus Lenormandi</i> F. Schultz. | 2. | Anthorn, R.A.B. |
| 16/1 | <i>Aconitum anglicum</i> Stapf. | | Near the bridge, R. Irthing,
Lanercoast, an escape from cultivation, B.M.C.M. |
| 35/2 | <i>Rorippa sylvestris</i> (L.) Bess. | 2. | Anthorn; Bowness,
I.W.E. |

- 49/4 *Sisymbrium orientale* L. 2. Silloth docks, previously known there for many years.
- 76/3 *Rapistrum rugosum* (L.) All. var. *glabrum* Host. 2. Silloth docks, N.D.S. (S).
- 87/2 *Helianthemum Chamaecistus* Mill. 4. Limestone rocks, Ardale, Cross Fell, R.A.B.
- 88/20 *Viola Lloydii* Jord. ap. Bor. 4. Roadside near the 3rd Lodge, Netherby, R.A.B.
- 88/35 *Viola Pesneauxii* Ll. & Fouc. 2. Sandhills near the Convalescent Home, Silloth, P.T.
- 98/5 *Lychnis macrocarpa* B. & R. 2. Railway siding behind the docks, Silloth, C.W.M.
- *103/7 *Sagina ciliata* Fr. 2. Silloth, near the docks, R.A.B.
- 103/8 *Sagina apetala* Ard. 2. 4. Silloth; Netherby, R.A.B.
- 151/2b *Ononis repens* L. var. *horrida* Lange. 2. Anthorn, U.D.
- *176/1b *Vicia sylvatica* L. var. *condensata* Dr. 2. Sandstone cliffs on St Bees Head, below Quarry Bungalow, N.D.S.
- 185/ *Rubus scissus* W. Watson. Margin of Wedholme Flow, near Lawrenceholme, J. Richardson. Det. W. Watson.
- 185/ *Rubus hebecaulis* Sudre. 2. Grune Point, Skinburness, N.D.S. (previously recorded from this locality).
- *190(2)/2 *Aphanes microcarpa* (Boiss. & Reut.) Rothm. 2. Silloth, E.J.G.
- 190/8 *Alchemilla glabra* Neygenf. 1. 4. Buttermere, R.A.B.; limestone rocks, Ardale, Cross Fell, I.W.E.
- 194/26 *Rosa rugosa* Thunb. 2. Skinburness, N.D.S.
- 203/1 *Chrysosplenium alternifolium* L. 4. Penton Lynns, B.M.C.M.
- 225/2 *Circaea canadensis* Hill. 1. Scales Wood, Buttermere, A.N.G.
- 298/1 *Asperula odorata* L. 4. Penton Lynns, C.W.M.
- 308/1 *Scabiosa Columbaria* L. 4. Limestone rocks, Ardale, Cross Fell, c. 2,000 ft. Confirms a locality suggested by the Rev. H. Friend in Hodgson's *Flora*.
- 339/3 *Ambrosia artemisiifolia* L. 2. Silloth, near the docks. R.A.B. Long established in this locality.
- 378/1 *Artemisia Absinthium* L. 2. Grune Point, Skinburness, I.W.E.
- 439/2 *Oxyccoccus macrocarpus* Pers. 2. Tarn near Nethertown. First recorded by Mr C. D. Pigott in 1943, its origin unknown.
- 457/2 *Limonium humile* Mill. 2. Anthorn; Grune Point, Skinburness. The most frequent species along the Cumberland coast.

- 478/4 *Centaureum pulchellum* (Sw.) Dr. 2. Anthorn, U.D., B.M.C.M., Miss J. Heeley-Creed.
- 537/1 *Minulus guttatus* DC. 4. Liddel Water, Penton Lynns, J. Richardson.
- *541/1b *Digitalis purpurea* L. var. *nudicaulis* Saunders. 3. Wedholme Flow, N.D.S.
- 545/2 *Euphrasia borealis* Wettst. 1. Meadow behind the Fish Hotel, Buttermere, C.W.M. Det. E. F. Warburg.
- 545/5 *Euphrasia nemorosa* Pers. 1. Meadow behind the Fish Hotel, Buttermere, C.W.M. Det. E. F. Warburg.
- 545/15 *Euphrasia micrantha* Reichb. 1. Crummock Water, B.M.C.M.
- 545/18 *Euphrasia confusa* Pugsl. f. *albida* Pugsl. 1. Haystacks, N.D.S. (S).
- 545/19 *Euphrasia Rostkoviana* Hayne. 1. Near Buttermere, N.D.S. (S).
- 545/ *Euphrasia montana* Jord. 1. Meadow behind the Fish Hotel, Buttermere, C.W.M. Det. E. F. Warburg.
- 548/5 *Rhinanthus stenophyllus* Schkuhr. 2. 3. St Bees, R.A.B.; Newton Reigny, N.D.S. (S).
- 549/3j *Melampyrum pratense* L. ssp. *hians* (Druce) Beauv. 4. Penton Lynns, N.D.S. (S).
- 566/17 *Salvia verticillata* L. 2. Silloth Docks, R.A.B. Long known from this locality.
- *569/6 *Glechoma hederacea* L. var. *heterophylla* Rouy. 4. Netherby Park, N.D.S. (S).
- 618/17 *Rumex scutatus* L. 3. Cockermouth, I.W.E.
- 628/10 *Euphorbia Esula* L. 2. Silloth, R.A.B.
- 650/2×1 *Salix fragilis* L. × *pentandra* L. 3. Newton Reigny Moss; near Newsham cross-roads, P.T. Det. R. Melville.
- 650/8×12 *Salix caprea* L. × *nigricans* Sm. 3. Near Newsham cross-roads, P.T. Det. R. Melville.
- 650/10×12 *Salix atrocinerea* Brot. × *nigricans* Sm. 3. Newton Reigny Moss; near Newsham cross-roads, P.T. Det. R. Melville.
- *727/4 *Lemna gibba* L. 2. Dripping sandstone rocks, Fleswick Bay, N.D.S.
- 739/1 *Zannichellia palustris* L. 2. Mouth of the R. Eden near Cargo Hill, U.D.
- 745/2 *Eleocharis uniglumis* (Link) Schult. 2. Anthorn, U.D.
- 745/3 *Eleocharis multicaulis* Sm. 2. Anthorn, A.N.G.
- 746/8 *Scirpus pauciflorus* Lightf. 3. Wedholme Flow, I.W.E.
- 747/1 *Eriophorum latifolium* Floppe. 3. Newton Reigny Moss, C.W.M.
- 753/13 *Carex laevigata* Sm. 4. Penton Lynns, R.A.B.

- 753/20(2) *Carex demissa* Hornem. 4. Ardale, Cross Fell, I.E.
Det. E. Nelmes.
- *753/20(2)×21 *Carex demissa* Hornem. × *lepidocarpa* Tausch. 1. Buttermere, E.J.G. Det. E. Nelmes.
- 753/21 *Carex lepidocarpa* Tausch. 4. Ardale, Cross Fell,
R.A.B.; 1. Buttermere, E.J.G. Det. E. Nelmes.
- 753/22 *Carex serotina* Mérat. 1. Buttermere, N.D.S. (S).
- *791/1f *Deschampsia caespitosa* (L.) Beauv. var. *parviflora*
(Thuill.) Dum. Penton Lynns, N.D.S. (S).
- 804/1 *Sesleria caerulea* (L.) Ard. 4. Ardale, Cross Fell (re-
corded in Hodgson's *Flora* without locality).
- 825/5 *Puccinellia maritima* (Huds.) Parl. f. *nana* Lange. 2.
Anthorn, N.D.S.
- 826/7 *Festuca rubra* L. var. *glaucescens* (Hegetschw. & Heer)
Richt. f. *pubescens* Howarth. 2. Fleswick Bay,
N.D.S. (S).
- 826/7 *Festuca rubra* L. var. *pruinosa* (Hack.) Howarth. 2.
Fleswick Bay, C.W.M. Det. W. O. Howarth.
- 826/5 *Festuca altissima* Thuill. 4. Penton Lynns, R.A.B.
- 826/12 *Festuca tenuifolia* Sibth. 1. Below Fleetwith Pike,
N.D.S. (S).
- 827/19(3) *Bromus hordeaceus* L. sec. Holmb. 2. Bowness, N.D.S.
(S).
- *876/12b *Chara aspera* Willd. var. *subinermis* Kütz. 4. R. Irthing,
above the Spa Hotel, Gilsland, R.A.B. Det.
G. O. Allen.

RECORDS FROM SOUTH NORTHUMBERLAND, V.-C. 67, AND DUMFRIESSHIRE, V.-C. 72.

- *127/30 *Geranium sylvaticum* L. var. *parviflorum* Knaf ap. Celak.
v.-c. 67, S. Northumb.; Greenlee Lough, N.D.S.
(S).
- *718/16 *Juncus tenuis* Willd. v.-c. 72, Dumfries.; Penton Lynns,
R.D.G.
- 753/53 *Carex paupercula* Michx. v.-c. 67, S. Northumb.;
Muckle Moss, N.D.S.; P.T.

JULY 15th to 19th. WEST NORFOLK—V.-C. 28.

Leaders: MESSRS C. E. HUBBARD, R. P. LIBBEY and E. L. SWANN.

The following 40 members, with 3 guests, in addition to the leaders, took part in this field meeting:—Miss D. Baylis, Mrs W. Boyd Watt, Miss R. Carey, Miss B. M. Chalk, Lt.-Col. and Mrs W. O. Cobbett (guest), Miss W. J. Cornwell, Mrs C. H. Crocker-Fox, Mrs H. R. Davies, Mrs J. Farquharson, Miss L. W. Frost, Miss E. J. Gibbons, Mrs A. N. Gibby, Mr J. L. Gilbert, Mr W. D. Graddon, Comdr. R. D.

Graham, Mr F. M. Gurteen, Mr R. H. Hall, Mrs B. Hassall, Miss K. M. Hollick, Dr M. G. Hughes, Miss M. Isaac, Miss M. Knox, Miss C. E. Longfield, Mrs M. Milvain, Miss B. M. C. Morgan, Miss M. Parsons, Dr C. P. Petch (guest), Mrs H. M. Richards, Miss J. E. Richards, Lady Roche, Mr N. Y. Sandwith, Lady Severn and friend, Miss E. Starr, Mrs G. M. Steuart, Mr V. S. Summerhayes, Mrs B. Welch, Miss D. M. Wethered, Miss M. M. Whiting, Miss C. Wickham, Mr L. W. Wilson, and Dr D. P. Young.

Friday, July 15th.

In the evening members met at the Globe Hotel, King's Lynn, where a room had been placed at their disposal for discussion, the naming of plants, etc. Mr Hubbard opened the meeting by welcoming the very large number of members to the vice-county and referred to the wide range of types of vegetation which it was proposed to study. Its proximity to the sea and the low coast-line provided a rich flora characteristic of salt-marshes, sand-dunes, and shingle ridges, whilst inland the several semi-natural fens and bogs exhibited features of considerable ecological interest. The northward extension of 'Breckland', an area of chalk thinly covered in parts by sands and gravels, would also be included in the programme. Mention was made of some of the more interesting plants likely to be met with during the following four days.

Saturday, July 16th.

The party set out in two coaches and the morning was spent investigating the flora of the salt-marshes, sand-dunes, and shingle banks on the eastern shore of the Wash between Wolferton and Snettisham. Members were interested to see the large land areas reclaimed from the sea and to observe the extensive use made of *Spartina Townsendii* in fixing the mobile mud. In 1910 a small shipload of plants was introduced near North Wootton and to-day there is an almost unbroken stand of many acres stretching from just north of King's Lynn to Wolferton Creek. A few small clumps only of the native *Spartina maritima* were found on the landward side.

It would appear that the two species of *Spartina* do not compete with each other and the claims that *S. Townsendii* kills out *S. maritima* cannot be upheld so far as experience in West Norfolk is concerned. Whilst the former occupies the areas of mobile mud the latter occurs by the sides of water-holes in relatively closed salt-marsh.

Habitat differences are also clearly marked in the two species of *Parapholis* (*Lepturus*), together with a time-lag in flowering. *Parapholis incurvus* was pointed out to members although long past flowering and showing only the dried-up stems. It was occupying a habitat similar to the continental plant and had every appearance of being native in this station; *P. strigosus*, on the other hand, was found in full flower, in relatively wetter habitats, and was everywhere abundant.

FIELD MEETINGS, 1949

Wolferton Beach has been a comparatively well-worked small area and afforded the critical workers opportunity to obtain good material of varieties of *Festuca rubra* and *Agropyron* spp. Here, too, were noted *Desmazeria marina*, *Hordeum marinum* in abundance, and *Phleum arenarium*. It was a good year for the sea-coast variety of *Rumex crispus* nearing the fruiting stage on the shingle storm-shelf. Other interesting salt-marsh and shingle plants included *Arenaria serpyllifolia* var. *macrocarpa*, *Limonium binervosum*, *Suaeda fruticosa*; whilst *Chenopodium ficifolium* was found on a farm rubbish-heap nearby.

After a picnic lunch the party visited Dersingham Fen, parts of which are bog-peat overlying the Lower Greensand and bordering the typical heather and Scots pine country. By the roadside a large clump of *Mentha alopecuroides*, a frequent Norfolk mint, often cultivated in cottage gardens, was seen. There was a fine show of *Narthecium* in full flower, associated with *Rhynchospora alba*. Several species of *Juncus* were noted, including *J. bulbosus* var. *Kochii*; here also were seen fruiting plants of *Oryzococcus quadripetalus* and its speckled-fruited variety. In the birch-scrub areas *Hypericum dubium* and a newcomer for this station in *Lysimachia punctata* were observed, the latter an obvious escape from gardens close at hand.

By kind invitation of Mrs F. J. Bone, tea was taken at Sandringham, where members were escorted through the grounds and incidentally found *Lemna minor* in flower by the lake, *Ranunculus Lingua* massed with *Lysimachia punctata*, and one plant of *Carex pallescens*. Heavy and prolonged showers now brought field work to an abrupt close but members enjoyed being shown the beauties of Sandringham church through the kindness of Mr Bone, who gave a short organ recital. The closing of a B.S.B.I. excursion with musical honours must be unique!

Sunday, July 17th.

In the morning Roydon Common was visited. This is one of the many tracts of heath on the range of the Lower Greensand hills which borders the eastern shore of the Wash. Here members found a new station for the special plant of this large area of 670 acres, namely, *Hammarbya paludosa*, the known local range of which is thus extended by about a mile. *Drosera anglica* was found to be very rare, but masses of non-flowering *Utricularia intermedia* filled many of the wet hollows. Other interesting plants were *Platanthera bifolia*, *Eriophorum latifolium* and *Carex lepidocarpa*. The presence of these latter two, more or less calcicolous, plants, in an otherwise typical acid-heath flora, appeared somewhat incongruous, but the swamp areas in which these are found carry the drainage of decalcified gravels and loams of the surrounding hills. On the acid-heath *Orehis ericetorum* was seen in small quantity.

After lunch by the roadside the party visited Derby and Sugar Fens which are good examples of true sedge-fens and similar to the

well-known Wicken Fen in Cambridgeshire. Although very small compared with the large area of Roydon Common they are very rich in species. By wading through deep peat and treading on quaking bog, members were able to see typical fen vegetation. The most interesting plants included *Ranunculus Lingua*, Marsh Orchids and their hybrids, *Eleocharis* species, *Carex lasiocarpa*, and *Pilularia* in its fruiting stage. Derby Fen is the only known West Norfolk station for this last plant.

The next stop was made at East Winch Common, which is on glacial gravel overlying thin peat with a little bog in the low-lying parts. Search was made for *Littorella uniflora* but without success, owing to the recent drought. Its original finder was Dr Petch. This station is well-known for the abundance of *Gentiana Pneumonanthe* and the excellent display was admired. According to local tradition this plant was originally introduced. A recent arrival here is *Parentucellia* (*Bartsia*) *viscosa*. A small area was ploughed and prepared for a cricket pitch by sowing with a suitable mixture of grass seed; in an otherwise weed-free germination this south-western plant was an obvious impurity. It is not thought likely that it will persist. It is interesting to note that Mr Sandwith has observed a precisely similar occurrence in Gloucestershire. Other plants studied here were *Juncus conglomeratus*, the variable *Juncus effusus*, large bushes of an erect form of *Salix repens* agg., the dominant willow of this common, *Euphrasia anglica*, the Marsh orchids with hybrids, a strange form of *Carex nigra* with five female spikelets only, the hybrid *Carex Hostiana* x *tumidicarpa*, and *Sieglingia decumbens* bearing axillary basal cleistogenes.

From East Winch the party travelled to Swaffham for tea at the George Hotel but made two short stops *en route*, first, to see the small clump of *Anthemis tinctoria* which has now persisted at West Bilney for some years; the second to see *Arnoscris minima* which was flowering in quantity at Pentney round the headlands of a field of rye. During the war years some very acid, heathy fields had been ploughed and sown with rye; in the first year this plant was very abundant and has persisted round the field-margins; *Oenothera Cyanus* was also seen.

After tea a visit was paid to Castleacre Priory where *Galium anglicum* was growing sparsely on the ruined walls together with some *Arenaria tenuifolia*. Whilst the history of the Priory and its many archaeological features were being explained by the guide some members explored the grounds, which contained an abundance of *Calamintha Nepeta*, and a plant or two only of the rare *Poa palustris* were seen.

On the return journey to King's Lynn a short halt was made by the sand-mill at Bawsey in order to see *Apera interrupta* by the roadside. In a heathy field a large colony of the alien *Potentilla recta* was pointed out, together with *Acinor arvensis*, both normal and white-flowered forms. Nearby a white-flowered form of *Ballota nigra* was found; albinism appears to be frequent among plants of dry acid heaths and 'Breckland' soils.

FIELD MEETINGS, 1940

Monday, July 18th.

Coastal vegetation was again the object of this day's excursion and the well-known Sea-lavender marsh at Holme-next-the-Sea was chosen for the morning's work. *En route* a halt was made at the carstone quarry at Snettisham to see the masses of *Verbascum pulverulentum*. This station is the headquarters for this plant, which is practically confined to Norfolk and Suffolk, and it is from this focal point that it may be traced in diminishing frequency to the south and east.

On arrival at Holme the party studied the *Limonietum* which occupies a wide area. Some *Salicornia* species were noted around depression pans on the salt-marsh, but these were not sufficiently mature for determination, although *S. perennis* was unmistakable and was confined to habitats with more shingle intermixed with mud.

The grasses here were similar to those already seen at Wolferton but, in addition, *Vulpia membranacea* was noted in the sand-hills and also the salt-marsh variant of *Agrostis stolonifera*.

Frankenia laevis, *Limonium vulgare*, *L. binervosum*, and *L. bellidifolium* were among the more interesting plants of this station. From a small roadside osier plantation sterile material of two willows was taken, namely, *S. calodendron* and *S. "fragilis"* (? *S. Basfordiana*).

After the usual picnic lunch Burnham Overy Staithe was the next stopping place. A long walk led to the marram-hills where the old-established dunes contrasted with the younger dunes of both Holme and Wolferton. Here several surprising species were found. They included *Lathyrus sylvestris* in two large colonies reputed to be introductions. This plant appeared to be somewhat atypical and some peduncles bore as many as 15 flowers. Outliers, not yet flowering, of *Gnaphalium luteoalbum*, from its well-known station whence it was recorded nearly a hundred years ago, were seen. *Hypochoeris glabra* was fairly common and masses of *Epipactis palustris* were in flower in the damp slacks together with a few withered spikes of *Ophrys apifera*.

After this somewhat strenuous day members were ready for an early tea at the Moorings Hotel. Later, by kind permission of the Earl of Leicester, the party was allowed to drive through Holkham Park, where the many specimen trees and avenues of evergreen oaks were admired. Nearing King's Lynn a halt was made at Vincent Hills, West Newton, where Mr Sandwith found a plant new to the vice-county in *Althaea hirsuta* growing in a field of lucerne. In the small abandoned gravel-pit, surrounded by arable land, which is slowly reverting to heath, many unusual plants were noted, including the glabrous variety of *Sisymbrium officinale*; *Silene Cucubalus*, "a form with no reticulations to the calyx and petal-scales almost absent" (Dr Young); *Silene anglica*; *Galium erectum*; fruiting *Hyoscyamus niger*; *Salvia pratensis*, well past flowering; and more plants of *Apera interrupta*.

In the evening members were given a short but instructive lecture on grasses by Mr Hubbard, who used freshly-gathered material to illustrate varieties and diseased forms.

Tuesday, July 19th.

An early start was made on the last day to visit the northward extension of 'Breckland.' Such a large area was to be covered that much of the day was in the nature of roadside botanising at such chosen spots as Merton, East Harling Heath, and Thetford.

At Merton the *Oenothera laccifer* was in abundance. This plant, although first found by F. Robinson in 1906, continues to hold its own but no explanation has been forthcoming of its arrival here. At East Harling Heath a typical chalk-heath flora was observed which included *Asperula cynanchica*, *Scabiosa columbaria*, stemless and stemmed forms of *Cirsium acaulon*, *Phleum nodosum*, with characteristic 'Breckland' plants such as *Silene Otites* and *Medicago falcata*.

During the coach-ride through this area the party deplored the sight of line after line of regimented conifers, which have made considerable inroads on once excellent botanical hunting ground, but were pleased to be shown a few outliers of the very rare *Veronica spicata*.

Picnic lunch was taken on Barnham Cross Common, which was selected for a visit since it is unique in being the only common in the British Isles to support nearly all the typical 'Breck' plants.

The time of the year coupled with the intense drought did not favour many species being found, but members succeeded in seeing such plants as *Medicago falcata*; scattered populations of forms intermediate between that plant and the cultivated lucerne; *Scleranthus perennis*; *Artemisia campestris* in bud; and *Phleum phleoides*. This last rare East Anglian grass is protected from grazing animals by growing in one of the many small but deep depressions. Members were able to observe the variation in this species which, Mr Hubbard pointed out, appears in two minor forms in this country, one with scabrous-keeled glumes and the other with ciliate-keeled glumes.

On the way back brief halts were made at Santon to see the abundant alien grass, *Bromus tectorum*; at Stoke Ferry to see the *Berteroa incana* where it has persisted for the past twenty years and where one plant of *Bromus Gussonei* was found; and a final stop at Wormegay where *Apera spica-venti* has been found recently in quantity.

After tea at the headquarters the excursion was officially ended.

Three vice-county records are to be noted:—*Sisymbrium polyceratum* found by Mr J. L. Gilbert on an old cinema site in the town of King's Lynn; *Impatiens parviflora* found by Dr. D. P. Young on a rubbish heap near the King's Lynn Docks—possibly introduced with Russian timber; and *Althaea hirsuta* discovered by Mr Sandwith at West Newton.

The first two plants were not found in the course of field-work on the organised excursions but were discovered before the start of the day's programme. They both lay within a few yards of the headquarters of this meeting!

For permission to visit private property and estates grateful acknowledgment is made.

For their valuable assistance, both in the field and at the evening gatherings in determination of plants, thanks are especially due to Messrs N. Y. Sandwith and V. S. Summerhayes.

SOME PLANTS OBSERVED.

WOLFERTON.

- 102/5d *Arenaria serpyllifolia* L. var. *macrocarpa* (Lloyd)
 457/5 *Limonium binervosum* (G. E. Sm.) C. E. Salmon
 600/12 *Chenopodium ficifolium* Sm.
 612/1 *Suaeda fruticosa* Forsk.
 618/3b *Rumex crispus* L. var. *trigranulatus* Syme
 758/2 *Spartina maritima* (Curt.) Fernald
 758/3 *S. Townsendii* H. & J. Groves
 777/4 *Phleum arenarium* L.
 820/1 *Desmazeria marina* (L.) Druce
 826/7 *Festuca rubra* L. var. *vulgaris* Spenner
 826/7c do. do. var. *barbata* (Schrank) Richt.
 do. do. var. *grandiflora* (Hack.)
 826/7e do. do. var. *glaucescens* (Hegetschw. et Heer)
 Richt.
 do. do. var. *arenaria* Fries
 830/1 *Agropyron junceum* (L.) Beauv.
 830/1b do. do. forma *megastachyum* (Fries)
 830/1x2 do. do. x *A. pungens* (Pers.) Roem. et Schult.
 830/2 *Agropyron pungens* (Pers.) Roem. et Schult.
 830/2c do. do. var. *pycnanthum* (Gren. et Godr.)

DERSINGHAM.

- 112/12 *Hypericum dubium* Leers
 439/1 *Oxyccoccus quadripetalus* Gilib.
 439/1 do. do. var. *maculatus* Lousley
 463/3 *Lysimachia punctata* L.
 558/2 *Mentha alopecuroides* Hull
 714/1 *Narthecium ossifragum* (L.) Huds.
 718/12 *Juncus bulbosus* L. var. *Kochii* (F. Schultz)
 748/2 *Rhynchospora alba* (L.) Vahl

ROYDON COMMON.

- 213/1 *Drosera anglica* Huds.
 552/3 *Utricularia intermedia* Hayne
 659/1 *Hammarbya paludosa* (L.) O. Kuntze
 669/10 *Orchis ericetorum* (E. F. Linton) E. S. Marshall
 674/7 *Platanthera bifolia* (L.) L. C. Rich.
 747/1 *Eriophorum latifolium* Hoppe
 747/2 *E. angustifolium* Honck.
 753/21 *Carex lepidocarpa* Tausch

DERBY AND SUGAR FENS.

- 6/6 *Ranunculus Lingua* L.
 103/1 *Sagina nodosa* (L.) Fenzl
 189/25 *Comarum palustre* L.
 545/ *Euphrasia anglica* Pugsl.
 668/1b *Epipactis palustris* (L.) Crantz var. *ericetorum* (A. et G.)
 669/6 *Orchis latifolia* L. sec. Pugsl.
 669/8 *O. praetermissa* Druce
 669/6×8 *O. latifolia* L. sec. Pugsl. × *O. praetermissa* Druce
 669/11 *O. Fuchsii* Druce
 669/8×11 *O. Fuchsii* × *O. praetermissa* Druce
 674/1 *Gymnadenia conopsea* (L.) R. Br.
 674/7 *Platanthera bifolia* (L.) L. C. Rich.
 718/4b *Juncus effusus* L. var. *compactus* Hoppe
 718/4×5 × *Juncus diffusus* Hoppe
 730/1 *Baldellia ranunculoides* (L.) Parl.
 735/2 *Triglochin palustris* L.
 745/1 *Eleocharis palustris* (L.) Roem. et Schult.
 745/2 *E. uniglumis* (Link) Schult.
 753/8 *Carex lasiocarpa* Ehrh.
 867/1 *Pilularia globulifera* L.

EAST WINCH.

- 480/1 *Gentiana Pneumonanthe* L.
 545/ *Euphrasia anglica* Pugsl.
 546/4 *Parentucellia viscosa* (L.) Caruel
 650/11 *Salix arenaria* L. × *S. repens* L. sec. Floderus (*S. repens* L. agg.)
 669/8 *Orchis praetermissa* Druce
 669/10 *O. ericetorum* (E. F. Linton) E. S. Marshall
 669/8×10 *O. ericetorum* × *O. praetermissa*
 718/3 *Juncus conglomeratus* L.
 753/19 *Carex Hostiana* DC. × *C. tumidicarpa* Anderss
 753/49 *Carex nigra* (L.) Reichard, forma
 800/1 *Sieglingia decumbens* (L.) Bernh.
 368/1 *Anthemis tinctoria* L., West Bilney.
 495/12 *Centaurea Cyanus* L., Pentney.
 410/1 *Arnoseris minima* (L.) Schweigg. et Koerte; Pentney.

CASTLEACRE.

- 102/8 *Arenaria tenuifolia* L.
 296/13 *Galium anglicum* Huds.
 562/7 *Calamintha Nepeta* (L.) Savi
 824/5 *Poa palustris* L.

BAWSEY.

- 189/13b *Potentilla recta* L. var. *sulfurea* Lam. et DC.
 191/2 *Agrimonia odorata* (Gouan) Mill.
 592/8 *Acinos arvensis* (Lam.) Dandy forma *albiflora*.
 583/1 *Ballota nigra* L. forma *albiflora*.
 785/2 *Apera interrupta* (L.) Beauv.
 527/6 *Verbascum pulverulentum* Vill., Snettisham.

HOLME-NEXT-THE-SEA.

- 90/1 *Frankenia laevis* L.
 457/1 *Limonium vulgare* Mill.
 457/4 *L. belvidifolium* (Gouan) Dum.
 457/5 *L. binervosum* (G. E. Sm.) C. E. Salmon
 611/1 *Salicornia perennis* (Gouan) Mill.
 650/3c x 2 *Salix* "fragilis" L. (? *S. Basfordiana* Scaling ex Salters)
 650/6 x *Salix calodendron* Wimmer (*S. acuminata* Sm.)
 780/2f *Agrotis stolonifera* L. var. *stolonifera ecas salina* (Jansen et Wachter) Philipson
 826/15 *Vulpia membranacea* (L.) Dum.

BURNHAM OVERY STAITHE

- 178/2 *Lathyrus sylvestris* L.
 328/1 *Gnaphalium luteo-album* L.
 421/3 *Hypochoeris glabra* L.
 668/1 *Epipactis palustris* (L.) Crantz var. *ochroleuca* Barla
 672/3 *Ophrys apifera* Huds.

VINCENT HILLS, WEST NEWTON.

- 49/6b *Sisymbrium officinale* (L.) Scop. var. *leiocarpum* DC.
 96/2 *Silene Cucubalus* Wibel, forma
 96/4 *Melandrium noctiflorum* (L.) Fr.
 96/5 *S. anglica* L.
 115/2 *Althaea hirsuta* L.
 296/3 *Galium erectum* Huds.
 524/1 *Hyoscyamus niger* L.
 546/5b *Odontites rubra* Gilib. var. *verna* (Bell.), the usual form.
 550/4 *Orobanche elatior* Sutton
 566/1 *Salvia pratensis* L.
 785/2 *Apera interrupta* (L.) Beauv.

EAST HARLING HEATH.

- 96/9 *Silene Otites* (L.) Wibel
 153/1 *Medicago falcata* L.
 298/3 *Asperula cynanchica* L.
 308/1 *Scabiosa Columbaria* L.

- 396/4 *Cirsium acaulon* (L.) Scop.
 396/4b do. do. forma *caulescens* Reichb.
 777/1g *Phleum nodosum* L.
 97/1 *Cucubalus baccifer* L., Merton.
- BARNHAM CROSS COMMON.
- 37/7 *Turritis glabra* L.
 153/1 *Medicago falcata* L.
 153/8 × *M. varia* Martyn
 378/2 *Artemisia campestris* L.
 595/1 *Scleranthus perennis* L.
 777/3 *Phleum phleoides* (L.) Karst.
 777/3 do. do. subvar. *blepharodes* (Aschers. et Graebn.)
 827/4 *Bromus tectorum* L., at Santon
 42/9 *Berteroa incana* (L.) DC., at Stoke Ferry.
 827/1 *Bromus Gussonei* Parl., at Stoke Ferry.
 785/1 *Apera Spica-venti* (L.) Beauv., at Wormegay.

E. L. SWANN.

AUGUST 13th. BROOK, GODALMING, SURREY, FOR WILLOW-HERBS.

Leader: G. M. ASH.

Twenty-two members attended this meeting, which was held on a very hot day. The dry summer had shrivelled up most plants and the Willow-herbs were stunted and in most cases not at all typical of what an ordinary season produces. Nevertheless this very paucity of material emphasized the great value of *pubescence* in the identification of our Willow-herbs and their numerous hybrids. Dwarfed specimens of *E. Lamyi*, *E. obscurum* and *E. adenocaulon* were readily separated from one another by this means. A list of the species noted is appended, but there is no doubt that the dominant species here, as in most parts of south-west Surrey, is *Epilobium adenocaulon*. This American alien, too, seemed best able to withstand the drought.

The site visited is well known to local botanists not only for the Willow-herbs but also for the number of common species of *Juncus* to be found; it is a good 'educating' ground. Among less common species to be found in a normal season there are *Centunculus minimus* L., *Centaurium pulchellum* Sw. (including its form *Schwartzianum* Witttr.), and occasionally *Euphorbia Lathyris* L. But principally this locality is known for its associations with the true Blood-veined Dock, *Rumex sanguineus* L. var. *purpureus* Stokes, a colony of which greatly interested members when pointed out by Mr Lousley. Mr Lousley had known it in this locality since 1934, when his attention was drawn to it by Mr. Wm. Watson (see *B.E.C. 1938 Rep.*, 130, 1939, and *1941/42 Rep.*, 568, 1944). The locality is known as 'Wareham Hill, Brook,' the narrow strip of Atherfield Clay supporting a small brickworks, the surrounding hazel copse being cut regularly for firing. No doubt the

specimen of *Rumex sanguineus* in the Herbarium of the National Museum of Wales, labelled "Oypse, Warnham Hill; Shoolbred, Sept. 30th, 1895," came, as Mr Lousley suggests, from this locality.

After the excursion an excellent tea was provided by Mrs Ash at Lower Birtley Farm, and the members then tested their skill on a few gathered Willow-herbs, which unfortunately had become somewhat withered.

The following is a list of the species of *Epilobium* seen during the afternoon:—

Epilobium parviflorum Schreb.

„ *montanum* L.

„ *lanceolatum* Seb. & Maur.

„ *roseum* Schreb.

„ *tetragonum* L. em. Curt.

„ *obscurum* Schreb.

„ *Lamyi* F. Schultz.

„ *adenocaulon* Haussk.

Hybrids included *E. adenocaulon* × *E. obscurum* and *E. montanum* × *E. obscurum*.

G. M. A.

SEPTEMBER 17th. BASINGSTOKE CANAL FROM BYFLEET TO WOKING (SURREY, V.-C. 17).

Leaders: J. E. LOUSLEY and W. E. WARREN.

The party assembled at Byfleet Railway Station at 11.35 a.m. and proceeded about 300 yards to the canal at the nearest point. From here, the tow-path was followed to Sheerwater Bridge where packed lunch was consumed. After lunch, the party divided into small groups with the object of making a thorough investigation of the canal and adjacent land as far as the Chertsey Road Bridge. Thence a short walk through the town led to the Albion Hotel, Woking, where tea was taken.

The 2½ mile long stretch of tow-path included much scenery of exceptional beauty. To the south of the canal, for about a mile in the middle of the route, the wooded Sheerwater heath extends to the main railway line with a maximum width of nearly half a mile. This heathland is divided into two by a wide ditch running approximately S.W.-N.E., and between this and the canal is Sheerwater Bog and a series of small pools, ditches and bomb-craters containing plants associated with acid conditions. The canal contains a rich aquatic and marginal flora which is especially well developed in backwaters on the north side, where it is flanked by further wooded heathland now broken into by the grounds of houses. The last mile of the tow-path approaching and through the outskirts of Woking is characterised by a much higher proportion of alien and horticultural species.

The object of the field-meeting was to make a record of the flora (so far as was possible in a single visit late in the season) in view of two



BASINGSTOKE CANAL BETWEEN BYFLEET AND WOKING.

Photo by Sydney Francis, Woking.

imminent threats. The first of these was to the canal itself, of which a stretch of some 32 miles became the property of the Basingstoke Canal Purchasing Committee on May 30, 1949. The declared objects of this Committee were the development of the canal both for pleasure and commercial use and it seemed likely that, in addition to obvious possible alterations, this might involve changes in the water-level and rate of flow.

The second threat arose from the purchase of 210 acres of adjacent land by the London County Council for development of a housing estate. The main portion of this area consists of Sheerwater heath (including the bog) with two smaller plots to the north of the canal. It falls within Nature Reserve no. 33 recommended in the *Report of the Wild Life Conservation Committee* (Cmd. 7122). It has long been a favourite haunt of London and Surrey naturalists and although it was unlikely that any important new discoveries would be made it seemed very desirable to find out what plants still grew there before they were destroyed.

The field-meeting was attended by 32 people and favoured with ideal weather. Little rain had fallen for many weeks and, although the level of water in the canal was too low to show the aquatics to advantage, the usually uncomfortably wet areas of Sheerwater heath were so dry that it was possible to examine them without difficulty. None of the known rarities were shown to the party, but nearly all were found independently in the course of the search and many members expressed their appreciation of the arrangement by which they could select their own route over the ground. Ten of the members who applied to attend the meeting undertook to concentrate on special genera for the day, and their reports are incorporated in the lists which follow.

The following list of plants observed includes only those of general interest with the addition of some of the common species characteristic of the habitats. Much longer lists contributed by various observers are available for reference.

A. BASINGSTOKE CANAL—aquatics and marginal flora, and tow-path.

- 6/21 *Ranunculus circinatus* Sibth.
- 35/3 *Rorippa amphibia* (L.) Besser
- 35/3×4 *R. amphibia* (L.) Besser × *R. islandica* (Oeder) Borbás—Herb. L.
- 35/4 *R. islandica* (Oeder) Besser
- 133/ *Impatiens capensis* Meerburgh—in one place this formed a continuous "hedge" some ten yards long.
- 184/11b *Filipendula Ulmaria* (L.) Maxim. var. *denudata* auctt. angl., non (Presl) Beck
- 220/ *Epilobium adenocaulon* Hausskn.—det. G. M. Ash
- 247/5 *Apium inundatum* (L.) Rehb. f.
- 253/2 *Sium erectum* Huds.
- 353/2 *Bidens tripartita* L.
- 365/11 *Achillea Ptarmica* L.

- 419/241j *Hieracium umbellatum* L. var. *coronopifolium* Bernh.—det. J.E.L.
- 481/1 *Menyanthes trifoliata* L.
- 482/1 *Nymphoides peltatum* [S. G. Gmel.] O. Kuntze
- 577/5 *Stachys palustris* L.
- 618/1 *Rumex Hydrolapathum* Huds.
- 654/1 *Hydrocharis Morsus-ranae* L.
- 718/10 *Juncus articulatus* L.
- 721/2 *Typha angustifolia* L.
- 724/1 *Acorus Calamus* L.—Mrs Welch
- 727/2 *Lemna polyrrhiza* L.
- 727/1 *L. minor* L. (also seen here in flower by Mrs Welch in July, 1950).
- 727/3 *L. trisulca* L.
- 729/1b *Alisma lanceolatum* With.—Herb. L. Exceptionally good material (with mauve flowers) in the locality from which it was drawn in Butcher's *Further Illustrations*.
- 732/1 *Sagittaria sagittifolia* L.
- 734/1 *Butomus umbellatus* L.
- 737/9 *Potamogeton gramineus* L. Plentiful at Byfleet end.
- 737/13 *P. lucens* L.
- 737/20 *P. obtusifolius* Mert. & Koch—only seen at Woking end.
- 745/4 *Eleocharis acicularis* (L.) Br. Flowering freely on the exposed mud at the sides of the canal.
- 746/3 *Scirpus lacustris* L.
- 753/1 *Carex Pseudo-cyperus* L.
- 753/9 *C. hirta* L.
- 753/57 *C. remota* L.
- 764/1 *Leersia oryzoides* (L.) Sw. Seen on both sides of the canal near Byfleet—on the south side with exserted panicles.
- 844/2x *×Equisetum litorale* Kühl.—det. P. Taylor. About half-way along in several colonies and variable. (Herb. L.)

It was interesting to observe how the character of the vegetation changed along various stretches of the canal.

B. HEATHLAND AND THICKETS BETWEEN THE CANAL AND THE RAILWAY.

- 89/1 *Polygala serpyllifolia* Hese
- 101/7 *Stellaria graminea* L.
- 101/8 *S. Alsine* Grimm
- 112/15 *Hypericum humifusum* L.
- 138/1 *Frangula Alnus* Mill.
- 160/4 *Lotus uliginosus* Schkuhr
- 220/7(2) *Epilobium adenocaulon* Hausskn.—det. G. M. Ash
- 220/10x7 *E. montanum* L. *× E. obscurum* Schreber—det G. M. Ash
- 237/1 *Hydrocotyle vulgaris* L.
- 274/1 *Angelica sylvestris* L.
- 288/1 *Viburnum Opulus* L.

- 296/4 *Galium saxatile* L.
 308/4 *Scabiosa Succisa* L.
 328/2 *Gnaphalium uliginosum* L.
 396/9 *Cirsium palustre* (L.) Scop.
 419/229 *Hieracium cantianum* F. J. Hanb.—Herb. L.
 445/1 *Calluna vulgaris* (L.) Hull
 446/1 *Erica cinerea* L.
 446/2 *E. Tetralix*
 452/1 *Rhododendron ponticum* L.—regenerating.
 559/1 *Lycopus europaeus* L.
 572/1 *Scutellaria galericulata* L.
 618/16 *Rumex Acetosella* L.
 642/1 *Betula verrucosa* Ehrh.
 642/2 *B. pubescens* Ehrh.
 643/1 *Alnus glutinosa* Gaertn.
 650/8 *Salix caprea* L.—Herb Kew.
 650/10 *S. atrocinerea* Brot.—Herb. Kew.
 650/9×10 *S. atrocinerea* Brot. × *S. aurita* L.—Herb. Young, det. R. Melville.
 650/11 *S. repens* L. sensu lato.—Herb. Kew.
 650/11 *S. repens* L. × *S. arenaria* sensu Floderus—Herb. Young, det. R. Melville. (Probably identical with the last. J.E.L.).
 714/1 *Narthecium ossifragum* (L.) Huds.
 718/3 *Juncus conglomeratus* L.
 718/4 *J. effusus* L.
 718/4 *J. effusus* L. var. *congestus* Lej. & Court.
 718/9 *J. acutiflorus* Ehrh. Young, ref. 3362 in Herb. Y., conf. P. W. Richards.
 718/12 *J. bulbosus* L.—Herb. Y.
 718/13 *J. squarrosus* L.
 718/16 *J. tenuis* Willd. (Plentiful on tracks—also seen on tow-path).
 718/17 *J. bufonius* L.
 719/4 *Luzula multiflora* (Retz.) DC.
 780/3 *Agrotis tenuis* Sibth.—Herb. Kew, det. C. E. Hubbard.
 780/6f *A. canina* L. var. *fascicularis* (Curt.) Sincl. f. *mutica*—Herb. Kew, det. C. E. Hubbard.
 783/1 *Calamagrostis epigejos* (L.) Roth—Herb. Kew
 791/4 *Deschampsia flexuosa* (L.) Trin.
 802/1 *Phragmites communis* Trin.
 813/1 *Molinia caerulea* (L.) Moench—in various forms.
 825/3b *Glyceria declinata* Bréb.—Herb. Kew, det. C. E. Hubbard.
 826/7j *Festuca tenuifolia* Sibth.—Herb. L.
 849/1 *Blechnum Spicant* (L.) With.—Herb. L.
 853/1 *Athyrium Filix-femina* (L.) Roth
 856/3 *Dryopteris spinulosa* (Müll.) Watt
 856/4 *D. dilatata* (Hoffm.) A. Gray.

C. SHEERWATER BOG AND ADJACENT BOMB-CRATERS AND DITCHES.

- 112/17 *Hypericum Elodes* L.
 213/3 *Drosera rotundifolia* L.
 220/14 *Epilobium palustre* L.
 396/5 *Cirsium dissectum* (L.) Hill
 453/3 *Pyrola minor* L.
 467/1 *Anagallis tenella* (L.) Murr.
 552/5 *Utricularia minor* L.
 572/2 *Scutellaria minor* Huds.
 669/10 *Orchis ericetorum* (Linton) E.S.M.
 714/1 *Narthecium ossifragum* (L.) Huds.
 737/2 *Potamogeton polygonifolius* Pourr. Seen in two very different forms, one on sphagnum and the other in fairly deep water—Herb. L.
 747/2 *Eriophorum angustifolium* Honck.
 747/4 *E. vaginatum* L.
 753/53 *Carex leporina* L.
 753/56 *C. echinata* Murr.

D. WASTE GROUND BY THE CANAL FROM THE SORBO WORKS FRONTAGE TO CHERTSEY ROAD BRIDGE, WOKING.

- 49/3 *Sisymbrium altissimum* L.
 383/7 *Senecio squalidus* L.
 396/8×9 *Cirsium arvense* (L.) Scop. × *C. palustre* (L.) Scop.—Herb. L., det. W. A. Sledge.
 425/2 *Lactuca Serriola* L.
 511/ *Calystegia sylvestris* (Willd.) R. & S.
 615/8 *Polygonum nodosum* Pers.
 616/1 *Fagopyrum sagittatum* Gilib.

E. THICKET AT BYFLEET END.

- 1/1 *Clematis Vitalba* L.—A. W. Westrup,

In the above list the abbreviations Herb. Kew, Herb. L. and Herb. Y., refer to specimens in the herbaria of the Royal Botanic Gardens, Kew, J. E. Lousley and D. P. Young respectively. All material cited as in Herb. Kew was collected by E. Milne-Redhead and P. Taylor who were mainly responsible for the records given for "B". Thanks are also due to all the other members who assisted in finding plants and sending in records and particularly to G. M. Ash, J. G. Dony, D. H. Kent, A. W. Westrup and Mrs. B. Welch. Regrets at the threat of destruction of such an interesting and beautiful stretch of country were very freely expressed.

J. E. LOUSLEY.

Postscript (December 1950). During the summer of 1950 the work of clearing the site commenced. Trees were felled and their stumps dragged out by bull-dozers and the task of diverting the main ditch and taking it underground in a box-culvert was started. It soon became apparent that the drainage of the area would present considerable difficulties (*Woking News and Mail*, issue of August 25, 1950). The plans include the erection of over 1300 dwellings and although a large recreation ground and children's playgrounds are to be left bordering the canal, it is certain that the whole of the interesting terrestrial flora will be destroyed. Schools are to be built on the Sheerwater Bog and the report of Surrey County Architect states that the site "is wholly below the level of the Canal, occupying practically the lowest position of the estate, and being covered with a dense carpet of marsh grass, with heather, gorse, shrubs and trees in abundance". Great though the need for houses may be, it is difficult to avoid the feeling that this interesting and beautiful place must be very unsuitable on account of its dampness and its destruction is all the more regrettable. All who attended the meeting will share Mr. Warren's feelings when he writes: "The site is lost for ever. I haven't the heart to go along the canal nowadays". J.E.L.

FIELD MEETINGS, 1950.

PROGRAMME

April 2nd—Quendon Wood.

June 25th to July 1st—Douglas (Isle of Man).

July 14th to 16th—The Peak District.

August 18th to 21st—North Lincolnshire.

September 2nd—Surrey.

September 16th—Halling Down (Kent).

APRIL 2nd. QUENDON WOOD, ESSEX.

Leader: Dr. D. H. VALENTINE, assisted by Mr. H. and Miss D. MEYER.

This meeting was arranged in conjunction with the Conference on 'Aims and Methods in the Study of the Distribution of British Plants' with the particular object of studying *Primula elatior*, a species with an interesting restricted distribution in Britain. Amongst those attending we were especially glad to have the company of Prof. Faegri (Bergen), Prof. van der Wijk (Groningen) and Dr. Ir. A. W. Kloos, Jr. (Holland).

Following two or three days of cold, dull weather with overcast skies, hopes ran high that the finer weather of the morning would continue throughout the day as 57 members and visitors assembled at Victoria and boarded the coaches.

On arrival at Quendon the party found the wind very cold and whilst standing at the entrance to the wood listening to Dr. Valentine explaining the general ecology of this wood and of the species the party had come to see, a sudden storm of hail and sleet accompanied by thunder and lightning drove members into rainproofs. This did not however dampen their enthusiasm and very shortly all were engaged in hunting for the plants to be found.

Guided by the leaders members noted and discussed the differences between the Oxlip (*Primula elatior* Jacq.), the Primrose (*P. vulgaris* Huds.) and the hybrids in all stages between them. A fine patch of Green Hellebore (*Helleborus viridis* L. var. *Smithianus* A. Braun) found by some was much admired for the excellence of its condition and the fine show of blossom.

Dispersing throughout the length and breadth of the wood members at length assembled at the southern end where some Daffodil plants were found sparingly in bloom. Leaving Quendon Wood and crossing the road to a smaller wood on the opposite side, the Daffodils were found in some quantity as were also numbers of local children engaged in gathering the blossoms. In this wood also some extremely fine specimens of Cherry (*Prunus avium* (L.) L.) were noted and occasioned comment on the size they had attained.

During the course of the afternoon Dr. A. E. Ellis, the owner of the wood, accompanied by his son, met the party and the opportunity was taken of expressing the thanks of the Society to him for graciously according us permission to visit this delightful spot.

Retracing steps to the coaches, the party went to Twyfords near Bishops Stortford, where tea was waiting and was partaken to the accompaniment of much discussion on the plants noted during the day. Here too some of the distinguished visitors were welcomed and invited to make their comments on the result of the day's hunting, and by unanimous consent a vote of thanks was carried, with applause, to the leaders and others responsible for the satisfactory arrangements.

Among the party were some bryologists who found the area interesting and the following mosses and hepatics were listed in the field:—

MOSSES.

- Atrichum undulatum* (Hedw.) P. Beauv.
- Aulacomnium androgynum* (Hedw.) Schwaegr.
- Brachythecium rutabulum* (Hedw.) B. & S.
- Bryum argenteum* Hedw.
- B. erythrocarpum* Schwaegr.
- Ceratodon purpureus* (Hedw.) Brid.
- Cirriphyllum piliferum* (Hedw.) Grout.
- Otenidium molluscum* (Hedw.) Mitt.
- Dicranella heteromalla* (Hedw.) Schp.
- Dicranoweissia cirrata* (Hedw.) Lindb.
- Dicranum scoparium* Hedw.
- Eurhynchium striatum* (Hedw.) Schp. emend. Störmer.
- Fissidens bryoides* Hedw.
- F. exilis* Hedw.
- Funaria hygrometrica* Hedw.
- Homalia trichomanoides* (Hedw.) B. & S.
- Isothecium myurum* (Brid.) Brid.
- I. myosuroides* Brid.
- Mnium hornum* Hedw.
- M. longirostre* Brid.
- M. undulatum* Hedw.
- Neckera complanata* (Hedw.) Hüben.
- Polytrichum juniperinum* Hedw.
- Pseudoscleropodium purum* (Hedw.) Fleisch.
- Rhytidiadelphus triquetrus* (Hedw.) Warnst.
- R. squarrosus* (Hedw.) Warnst.
- Thamnum alopecurum* (Hedw.) B. & S.
- Thuidium tamariscinum* (Hedw.) B. & S.
- Tortula muralis* Hedw.

HEPATICS.

- Calypogeia fissa* (L.) Raddi.
- Lophocolea bidentata* (L.) Dum.

Metzgeria furcata (L.) Dum.
Pellia epiphylla (L.) Corda.
Plagiochila asplenoides (L.) Dum.
Radula complanata (L.) Dum.
Madotheca platyphylla (L.) Dum.

Among the more interesting flowering plants noted were:—

Helleborus viridis L. var. *Smithianus* A. Braun.
Oxalis Acetosella L.
Ulex europaeus L.
Sarothamnus scoparius (L.) Koch.
Prunus avium (L.) L.
Ribes rubrum L.
Primula veris L.
P. elatior Jacq.
Listera ovata (L.) R. Br.
Paris quadrifolia L.
Alchemilla vestita (Bus.) Raunk.
Primula vulgaris L.
Carpinus Betulus L.

B. T. WARD.

The following interesting observations on the day's work have been made by Dr. R. Melville:—

There are colonies of primroses around the borders of the wood and a few plants along some of the rides that have remained during the "high coppice" interval. In the body of the wood, the population is oxlip and oxlip-primrose hybrids, which have back-crossed to oxlip during the phase in which the coppice has grown up. Probable F1 plants were seen only in a few places along rides where both species were present. Many of the plants in the "high coppice" showed some characters of the primrose. Shortly after this wood was cut in the 1930's the population was largely of F1's and plants of similar appearance. Primrose characters have therefore been to a large extent eliminated from the population in the "high coppice" phase. Several plants were seen in which the petals were distinct and separate from one another and there was one with a foliose calyx.

Most of the plants of the oak-ash-hazel woods were present, including a good display of *Anemone nemorosa* in places, *Mercurialis perennis*, *Ajuga reptans*, etc. There was a colony of *Helleborus viridis* in one corner. At the other end of the wood were some colonies of *Narcissus pseudo-narcissus* which was present also in the second wood. The purity of these colonies was questioned at tea-time, but I saw no plants that I considered were hybrids. Their appearance was uniform and like other English colonies of this plant that I have seen, e.g. in Surrey, it is not impossible that one or two plants have been hybridised from pollen derived from gardens in the village, but I saw no evidence of this.

In the second wood there were few, if any, plants I would have placed as pure oxlip. I saw hybrids there.

JUNE 25th to JULY 1st. DOUGLAS (ISLE OF MAN).

The account of this Field meeting is deferred until the next issue.

JULY 14th to 16th. THE PEAK DISTRICT.

The account of this Field meeting is deferred until the next issue.

AUGUST 19th to 21st. NORTH LINCOLNSHIRE.

Leader: Miss E. J. GIBBONS.

This meeting was attended by the following members:—A. H. G. Alston, Miss B. Chalk, C. L. Collenette, J. G. Dony, J. L. Gilbert, Mrs. B. Hassall, R. C. L. Howitt, E. Knott, Miss M. Knox, R. Lewis, Miss C. Longfield, Miss B. M. C. Morgan, Mrs. W. Boyd Watt, Mrs. B. Welch, Miss M. M. Whiting, Dr. D. P. Young. Some of the botanical members of the Lincolnshire Naturalists' Union were invited, and several of them were able to join in each day.

On the evening of Aug. 18th a preliminary meeting took place at the headquarters at the Blue Bell, Scunthorpe. The leader outlined the geological basis and botanical possibilities of N.W. Lincolnshire. This area rises from the estuary of the river Trent at almost sea level to over 200 feet; the soil is chiefly blown sand with exposures of oolitic limestone on the high ridge known as The Cliff. Ironstone is extensively quarried to the north and east of Scunthorpe, where *Narthecium* and *Osmunda* once grew, but bogs are now scarce.

The weekend was spent almost entirely in two districts of v.c. 54, North Lincoln, as outlined by Woodruffe-Peacock. The object of the meeting was to make records for these districts:—District 1 (Isle of Axholme) and District 2 (Broughton and Scunthorpe).

Starting in, good time on Saturday, a call was made at a sand-pit at the Wing Mine, Ashby, for *Marrubium* and other sand plants. The next stop at Bracken Hill on Ermine Street, between Broughton and Scawby, for *Allium Scorodoprasum*, produced a few cornfield and woodland plants. The party then joined the L.N.U. (Lincolnshire Naturalists' Union) in full force, whose Field Meeting had been arranged at the Greetwell-Manton cross roads (for Manton Warren and Common). This is a very dry spot with a sea of *Pteridium* and *Carex arenaria*, but a few other plants rewarded their search. Dropping down the hill again to Manton Common, a large stretch of heather with ponds and birch scrub, the party spent several hours exploring it to its furthest limits, where a wonderful patch of *Gentiana Pneumonanthe* rewarded its finders. *Cladium* and three *Droseras*, which formerly grew here, have been extinct for about fifty years.

A short call was made at Twigmoor Woods, but rain came on and only a few members found anything.

After tea with the L.N.U. at Scunthorpe, the party went on to Brumby West Common, where wild country is left close to the town of Scunthorpe. The railway viaduct and a dyke, which was formerly used

to let in water and fertile silt from the Trent, also produced some unusual plants.

On Sunday morning it was planned to visit Risby Warren, but heavy rain made the rubbish tips and slagheaps of Brumby East Common a more suitable hunting ground.

In the afternoon the party went by bus to Epworth Turbary, a relic of original peat bog surrounded by highly productive farm land. Two members found a stubble field near the Turbary with some unusual weeds, including *Teesdalia nudicaulis*, *Arnoseris minima*, *Rhinanthus major*, *Anthoxanthum Puelii* and *Apera Spica-venti*.

After tea the party returned by way of the North and South Idle Drains, near the Yorkshire boundary, where several stops were made for water plants.

On Monday the diminished party went by car back to Manton Common, and then to Broughton Woods for limestone plants, ending up with a visit to the Ancholme Canal at Broughton Bridge, where water plants were found in an adjoining dyke.

Appended is a list of species which will indicate the useful work done during the week-end. It includes some records made by the leader in exploring the ground covered prior to the meeting.

* A new county record of a species listed in Comital Flora.

|| A new county record of a species not listed in Comital Flora.

\$ A new district record of a species (the number of the district is given in brackets).

All other records refer to species already recorded, but with incomplete details, from a district, and to previously unrecorded varieties.

- 6/21 *Ranunculus circinatus* Sibth., det. R. W. Butcher, near Broughton Bridge (2), E.J.G.
- 49/4 \$*Sisymbrium orientale* L., Brumby East Common (2), D.P.Y.
- 49/6 *S. officinale* (L.) Scop. var. *leiocarpum* DC., Wing Mine (2), D.P.Y.
- 76/1 ||*Rapistrum perenne* (L.) All., Brumby East Common (2), J.G.D. [Kew]
- 88/11 *Viola palustris* L., Epworth Turbary (1), J.G.D.
- 103/7b ||*Sagina flicaulis* Jord., Manton Warren (2), D.P.Y.
- 112/12 *Hypericum dubium* Leers, Manton Common (2), A.H.G.A. [B.M.]
- 117/1 *Malva moschata* L., side of North Idle Drain (1), E.J.G.
- 117/3 *M. neglecta* Wallr., Wing Mine (2), D.P.Y.
- 123/3 **Tilia cordata* Mill., Broughton Woods (2), A.H.G.A. [B.M.]
- 133/4 \$*Impatiens glandulifera* Royle, sewage dyke, Scunthorpe (2), E.J.G.
- 154/1 *Melilotus albissima* Thuill., conf. N. Y. Sandwith, railway bank, Brumby (2), D.P.Y.
- 165/1 ||*Cobutea arborescens* L., Brumby West Common (2), J.G.D.

- 176/35 § *Vicia tetrasperma* (L.) Schreb., arable field, Epworth (1), B.W. and J.G.D.
- 176/35b || *V. tenuissima* (Bieb.) Schinz & Thell., arable field, Epworth (1), B.W. and J.G.D. [Kew]
- 185/24 § *Rubus nemoralis* P. J. Muell., det. W. C. R. Watson, Manton Common, J.G.D.
- 194/6c *Rosa canina* L. near var. *sphaerica* (Gren.) Dum., det. R. Melville, Epworth Turbary (1), D.P.Y.
- 194/10k § *R. dumetorum* Thuill. near var. *erecta* W.-D., det. R. Melville, Epworth Turbary (1), D.P.Y.
- 216/1 *Myriophyllum spicatum* L., Epworth (1).
- 220/5 *Epilobium tetragonum* L., det. G. M. Ash, Brumby East Common (2), J.L.G.
- 253/2 *Sium erectum* Huds., Brumby West Common (2), E.J.G.; Epworth (1), D.P.Y.
- 291/2 *Lonicera Periclymenum* L., Epworth Turbary (1), D.P.Y.
- 296/4 *Galium saxatile* L., Epworth Turbary (1), D.P.Y.
- 304/1 § *Valerianella Locusta* (L.) Betcke, det. N. Y. Sandwith, arable field, Manton Common (2), D.P.Y.
- 304/3 *V. dentata* Poll., Ermine Street, Broughton (2), B.M.C.M., Manton Common (2), D.P.Y.
- 353/1 § *Bidens cernua* L., West Carr, Epworth (1); E.J.G. and J.G.D.
- 353/2 § *B. tripartita* L., Broughton Bridge (2), E.J.G. and B.C.
- 371/1 *Matricaria inodora* L., Brumby East Common (2), J.G.D. & B.W.
- 383/8 § *Senecio viscosus* L., Brumby West Common (2), C.L.
- 396/8 *Cirsium arvense* (L.) Scop. var. *mite* Wimm. et Grab., Brumby West Common (2), J.L.G.
- 415/1 *Picris echioides* L., railway bank, Brumby (2), E.J.G.
- 415/2 § *P. hieracioides* L., railway bank, Brumby (2), E.J.G.
- 419/8 || *Hieracium brunneocroceum* Pugsl., det. P. D. Sell, waste ground, Scunthorpe (2), R.L.
- 419/241 *H. umbellatum* L., det. P. D. Sell, Manton (2), Brumby (2), J.L.G.
- 419/256 § *H. vagum* Jord., det. P. D. Sell, Brumby West Common (2), J.L.G.
- 421/3 § *Hypochoeris glabra* L., Manton Warren (2).
- 425/2 * *Lactuca Serriola* L., railway sidings, Scunthorpe (2), D.P.Y.
- 515/3 § *Cuscuta Epithymum* (L.) Murr., on *Daucus Carota*, railway bank, Brumby (2), R.C.L.H. and R.L.
- 543/9 || *Veronica aquatica* Bernh., Brumby West Common (2), E.J.G.
- 545/5 § *Euphrasia nemorosa* (Pers.) H. Mart. emend. Löhr, Ermine Street, Broughton (2); Manton Common (2), D.P.Y.
- 558/13b *Mentha arvensis* L. var. *obtusifolia* Lej. & Court., det. R. Graham, Broughton Wood (2), J.L.G.
- 558/13m do. var. *brevidentis* Fraser, det. R. Graham, Broughton Wood (2), J.L.G.
- 578/1 *Galeopsis speciosa* Mill., Brumby East Common (2).

- 588/3 § *Plantago Coronopus* L., Pilfrey Bridge, Eastoft (1), E.J.G.
 606/5 § *Atriplex hastata* L., Brumby East Common (2), D.P.Y.
 606/10b || *A. hortensis* L. var. *rubra* (Cr.) Roth, Brumby East Common (2), B.M.C.M.
 615/32 || *Polygonum cuspidatum* Sieb. & Zucc., Brumby West Common (2).
 618/9 *Rumex conglomeratus* Murr. Epworth Turbary (1), D.P.Y.
 618/1 *R. Hydrolapathum* Huds. Brumby West Common (2), E.J.G.
 616/1 *Fagopyrum sagittatum* Gilib., Brumby East Common (2), B.W.
 636/1 || *Ficus Carica* L., sewage dyke, Scunthorpe (2), E.J.G.
 653/2 *Ceratophyllum demersum* L., det. R. W. Butcher, Broughton Bridge (2), E.J.G.
 718/5 *Juncus inflexus* L., Manton; Brumby; Epworth (1), D.P.Y.
 719/4b *Laizula multiflora* (Retz.) Lej. var. *congesta* (Thuill.) Koch, Epworth (1), D.P.Y.
 737/23 § *Potamogeton pusillus* L., det. Dandy and Taylor, Broughton Bridge (2), J.G.D. [B.M.]
 745/4 § *Eleocharis acicularis* (L.) Roem. & Schult., Double Rivers (1), E.J.G. and J.G.D. [Kew]
 746/2 *Scirpus maritimus* L., Brumby West Common (2), B.M.C.M.
 746/3 *S. lacustris* L., north of railway, Brumby West Common (2), E.J.G.
 746/7 § *S. caespitosus* L., Manton Common (2), M. Gibbons.
 753/58 § *Carex curta* Good., Manton Common (2), B.W. and B.M.C.M.
 766/2 § *Anthoxanthum Puelii* Lec. & Lamotte, arable field, Epworth (1), B.W. and J.G.D. [Kew] [B.M.]
 780/2f *Agrostis stolonifera* L., Manton Common (2), J.G.D.
 826/2 § *Festuca gigantea* (L.) Vill. Broughton Wood (2), J.G.D.
 856/3 *Dryopteris spinulosa* (Müll.) Watt., Manton Common (2); Epworth (1); A.H.G.A. [B.M.]
 856/4 *D. dilatata* (Hoffm.) A. Gray, Manton Common (2); Brumby West Common (2); A.H.G.A. [B.M.]
 856/7 *Thelypteris Oreopteris* (Ehrh.) C. Chr., pit near Epworth Turbary (1), E.J.G. and B.C. [B.M.]

SEPTEMBER 2nd. SURREY.

Leader: R. A. GRAHAM.

This day excursion was for the study of *Mentha*. In order to acquaint those attending as far as possible with this critical group, a simple key to the species and hybrids was prepared by the leader and circulated before the meeting, and members were asked to bring this with them.

The route was chosen so as to show as many representatives of each group growing wild as possible. Starting at Brookwood, a devious journey was made by coach and some private cars (owners of which are thanked for their co-operation) to Pirbright, Guildford, Merrow, Gom-

shall, Friday Street and Dorking, where tea was taken in a roadhouse. Regrettably three mints, *M. rotundifolia*, *M. pulegium* and *M. longifolia*, formerly along this route, had apparently died out, but the latter was indicated in a garden.

Mints of the following groups were seen *in situ*—*M. spicata*, *M. piperita*, *M. alopecuroides*, *M. aquatica*, *M. arvensis*, \times *M. gentilis*, \times *M. gracilis*, \times *M. Smithiana*, \times *M. verticillata*, while representatives of other groups were shown from specimens brought from the leader's herbarium.

Although it was not intended to show interesting plants other than mints, *Crataego-Mespilus* was pointed out by the roadside, and a short interlude at Gomshall Station produced *Xanthium spinosum* L., and \times *Senecio londinensis* Lousley. At the delightfully secluded Friday Street Mr. G. M. Ash indicated *Epilobium palustre* L., and its hybrid with *E. obscurum*.

Weather was generally kind. A word of commendation must be added for our coach driver, who negotiated some very narrow roads and tricky turns.

R. A. G.

SEPTEMBER 16th. HALLING DOWN.

Leaders: Dr. R. MELVILLE and Mr. F. ROSE.

This meeting was attended by 25 members and friends. Dr. Melville explained the object of the meeting which was to study the fruiting characters of a mixed colony of wild roses. He read notes already made from earlier visits made to study the colony. Many briars were examined and labelled, as it is intended in the summer of 1951 to visit the same place again to study the flowering characters of the same bushes. A fuller account of the work done at both meetings will be given in a later report.

Some members left in the late afternoon and the remainder had tea at the King's Head, Rochester, before returning to London.

J. G. D.

ITEMS 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.

CONFERENCE

ON THE

AIMS and METHODS IN THE STUDY OF THE DISTRIBUTION OF BRITISH PLANTS—March 31 to April 2, 1950

The Conference was very successful, especially in the general quality of the papers presented and in the attendance of members and friends. We are greatly indebted to Mr. S. M. Walters who at a late hour took the place which had been reserved for Mr. A. J. Wilmott, and to Mr. C. D. Pigott who prepared his excellent paper in less than a week when Captain Diver was unable to come. We are very grateful to the Royal Horticultural Society for again providing their premises, to Mr. H. E. W. Chalkley, not a member, who acted as an efficient lanternist and to Mr. W. R. Price who so efficiently carried through so many of the details of organisation.

The attendance on Friday was 129 (80 members, 28 students and 21 visitors) and on Saturday 121 (74 members, 23 students and 24 visitors). The increase in the attendance of students would appear to justify our experiment of asking for a reduced fee.

The lecture given by Dr. A. W. Kloos was greatly appreciated. We are grateful to Miss Campbell for conducting the early negotiations with the British Council which led to their making a grant of £10 towards Dr. Kloos's expenses in this country.

We were also fortunate in having as visitors to the Conference Prof. R. van der Wijk of Groningen and Prof. K. Faegri of Bergen.

The Field Meeting to Quendon on Sunday was enjoyable; 57 travelled by coach and 7 others met us at the woods. It was probably the best attended field meeting in the Society's history.

The Society has published in a separate volume all the papers given at the Conference and an account of the Field Meeting is to be found on p. 66.

EXHIBITION MEETING, 1950

An Exhibition Meeting was held in the Royal Horticultural Society's New Hall, Greycoat Street, Westminster, on Saturday, 25th November 1950, from 3 to 6 p.m. The attendance was a record one, comprising 90 members and 28 guests, a total of 118. Twenty-seven exhibits were put up; of these 17 were herbarium specimens, 2 distribution maps, 3 manuscript and diagrams, 3 photographs and 2 paintings.

The following is a list of the exhibits, with, in most cases, notes supplied by the exhibitors.

1. EXHIBITS OF INDIVIDUAL SPECIES.

THE GENUS *POLYGALA* L. IN KENT.

The County of Kent is interesting for its richness in this genus; five out of the six British species occur in it, *Polygala austriaca* Crantz being now unknown in any other British county, having become extinct in Surrey.

1. Distribution Maps of the five Kentish species were exhibited.

Polygala vulgaris L. is very common throughout the Chalk, except in Thanet, but rare elsewhere, though found in a few places in clayey grassland and on the Ragstone. *P. serpyllifolia* Hose is confined to acid soils, but on such soils is abundant on heathlands and woodland rides, etc. *P. oxyptera* auct. is confined to the Chalk and is somewhat rare, but an interesting concentration of its localities on the eastern escarpment near the sea coast is noteworthy. This may be a climatically influenced distribution. *P. austriaca* Crantz is very rare and occurs in a few widely scattered localities in old chalk turf across the centre of Kent, with a small local concentration east of Wye, where the plant also occurs in far greater numbers.

P. calcarea F. Schultz has an interesting "double" distribution. It occurs very plentifully in old grassland in mid and west Kent, usually with *P. vulgaris* L. (but does not follow this species on to relatively new chalk bank turf and re-grassed arable land), but it fades out east of Lenham, going no further east than Westwell. Then, eighteen miles to the east a form of it reappears in four or five localities about Dover, but it cannot be found between these points. This eastern form is different from the western one, as described below.

Kentish material of *P. vulgaris* L. forms, *P. calcarea* F. Schultz forms, *P. oxyptera* auct. and *P. austriaca* Crantz was exhibited; also *P. calcarea* F. Schultz from Rutland.

2. Some Interesting Forms of *Polygala* Species Observed in Kent.

Polygala vulgaris L. Besides the normal diffusely-branched form of this species with lanceolate-acute leaves and flowers which, when not pink or white, are purple-blue, there occurs in eastern Kent a form which superficially resembles *P. calcarea* F. Schultz. Examples of this were shown from Alkham and from near Dover. The root-leaves are brownish-green as in *P. calcarea*, and approximate in arrangement to a loose rosette.

They are broadly elliptical and very different from the cauline leaves, but are *acute* and not obtuse-spathulate as in all *P. calcarea*. The flowers are usually bright, pure blue, like *P. calcarea*. In West Kent such a colour is most unusual in *P. vulgaris*.

There is another form of *P. vulgaris* found near Lamberhurst on clayey hedgerbanks. This is very large with long flowering stems and racemes, and has pale mauve flowers; the lateral sepals are narrower than the fruit. The late Mr. J. R. Wallis sent this plant to the late Mr. A. J. Wilmott, who identified it as *P. oxyptera* Reichb., but it differs in size, flower colour and habit from that species, as shown. Typical specimens from East Kent and Rutland of *P. oxyptera* auct. were exhibited. Very large prostrate forms of *P. vulgaris* with pale blue-mauve flowers occur at Chilham Downs, East Kent, and elsewhere, but although superficially like the Lamberhurst plant, they possess lateral sepals as wide as the fully grown capsule.

P. calcarea F. Schultz. The most reliable characters for separating this species from all forms of *P. vulgaris* appear to lie in:—(i) the always obtuse, spatulate leaves of the basal rosette; (ii) the obtuse stem-leaves (in *P. vulgaris* the stem-leaves are always acute); (iii) the obtuse lateral sepals, which "bleach" at the fruiting stage. The West Kent form appears similar to that found in Surrey and on the East Sussex Chalk, but the form found near Dover differs from this. The differences are as follows:—

	Surrey, Mid and West Kent Plant.	Dover District Plant.
Flowers	Usually very deep blue, though fading in fruit to whitish blue (pink and white forms occur but are rare), large (5-6 mm. long).	Always of a much paler blue (pink and white forms not noted), smaller (3-5 mm. long).
Flowering shoots	Long, usually 6-12 cm. in length above rosette, sub-erect.	Always much shorter, 2-5-6 cm. long, rarely more, above rosette, usually prostrate.
Upper stem-leaves	Usually over 10 mm. long.	Usually 5-10 mm. long.
Radical leaves	Large (5 mm. wide, 10-12 mm. long), flat.	Smaller, up to 5 mm. wide, 6-8 mm. long, keeled.
Habitat	In old Chalk grassland on both N. and S. slopes, among <i>Bromus erectus</i> , <i>Festuca ovina</i> , <i>Poterium Sanguisorba</i> , <i>Hippocrepis</i> , etc.	In old Chalk grassland on both N. and S. slopes, among <i>Festuca ovina</i> , <i>Briza media</i> , <i>Hippocrepis</i> , <i>Brachypodium pinnatum</i> (where latter grass is grazed short).

It is proposed to investigate these plants more fully and to make cytological investigations. The exhibitor has them under cultivation in flower pots of chalk soil at present. The anatomy is being examined, but so far no obvious differences have been noted here.

There is an isolated area of distribution of *P. calcarea* on the Oolitic Limestone of Rutland, East Leicester, v.-c. 55, and S.W. Lincs., v.-c. 53, where the form of the species is rather like the East Kent plant in the size of root- and stem-leaves, but the stems are taller, slenderer and laxer flowered. The Rutland plant has deep blue flowers, but the Lincs. plant is paler, and has flat root-leaves of thin texture.

It will be interesting to see what forms of *P. calcarea* occur in northern France.

SILENE NUTANS AGG. IN KENT.

Material of the three forms of this aggregate in Kent was exhibited as follows:—

1. *Silene nutans* L. sec. Moss (*S. dubia* Salmon non Herbig; *S. italica* sec. Hanbury & Marshall in *Fl. Kent*, 1899, non Pers.; *S. patens* Peete in *Eng. Bot. Suppl.*; *S. paradoxa* Sm.), from Dungeness shingle beach. (Reported also at Dover by Peete).
2. *S. nutans* auct. non L. (*S. nutans* L. var. *Smithiana* Moss in *Camb. Brit. Flora*), from cliffs on Chalk at St Margaret's Bay, Dover and Folkestone. (Reported also from Shorncliffe, Sandgate, by G. Walton, 1925, in *S.E. Naturalist Suppl.*).
3. *S. italica* Pers. from Greenhithe, W. Kent.

Distribution maps were shown of the first two in Kent.

F. ROSE.

MONTIA FONTANA L.

N.W. European material of *Montia* can be separated, on the basis of characters of the ripe seed, into four groups, all of which are represented in Britain. One of these, *M. verna* Necker, shows no sign of intermediates to the others, and differs also from them in habitat and correlated habit, being typically a small annual of wet sandy ground subject to seasonal drying. (In the E. Mediterranean, however, plants with seed characters somewhat intermediate between *M. verna* and another form do seem to occur). The other three plants do not seem to show clear boundaries in the seed characters, but each has a characteristic geographical distribution. These are:—the Northern plant, which has been called *M. lamprosperma* Chamisso; a W. European plant, *M. lusitanica* Sampaio, which

has been called in Britain *M. fontana* var. *intermedia* (Beeby) Druce; and a plant with seed type intermediate between these two and somewhat variable, much material of which has gone under the name of *M. rivularis*.

Seeds of the four British types were exhibited under the binocular microscope, together with (very incomplete) distribution maps for Britain and N.W. Europe. The suggestion was made that the best taxonomic treatment of the aggregate would be to treat all four as geographical subspecies of the Linnean species *Montia fontana*. A paper setting out the taxonomic and nomenclatural conclusions is in preparation.

D. E. ALLEN.

S. M. WALTERS.

SPECIMENS OF RECENTLY DISCOVERED RUBI IN KENT AND SUSSEX.

The account of this exhibit by Mr. W. C. R. Watson will appear in an early number of *Watsonia*.

AN INTERESTING EPILOBIUM POPULATION.

In June 1947 a very mixed population of *Epilobium* species was found growing in a neglected garden in Honor Oak Road, Forest Hill, London, S.E.23. The population included *E. adenocaulon* Hausskn. (abundant), *E. montanum* L. (abundant), *E. roseum* Schreb. (rather abundant), *E. tetragonum* L. em. Curt. (sparse) and *E. obscurum* Schreb. (sparse). *E. hirsutum* L. was also present 100 yards away, but not with the mixed population.

Samples of the population (exhibited) were kindly determined by Mr. G. M. Ash, who found that the following hybrids were also apparently represented:—

E. adenocaulon × *roseum*

E. montanum × *roseum*

E. tetragonum × *roseum*

E. montanum × *parviflorum*

Of these, Mr. Ash believes that the first and third have probably not previously been recorded, at least for Britain. Regarding the fourth, it should be noted that the putative parent *E. parviflorum* L. was not actually observed in the garden.

The fact that *E. roseum* entered into the composition of three of the observed hybrids is noteworthy, in view of the fact that the main flowering of this species took place quite 10 days after that of the other four species comprising the population.

H. K. AIRY SHAW.

BRITISH SPECIES OF *CIRCAEA*.

Three species of Enchanter's Nightshade occur in Britain, *C. lutetiana* L., widespread, *C. canadensis* Hill, common in Scotland but thinning out in England and not recorded south of Derby and South Wales, and lastly *C. alpina* L. with a distribution supposedly similar to that of *C. canadensis*. *C. alpina*, however, is a much misunderstood plant and often confused with *C. canadensis*. Its true distribution in Britain is not at all accurately known.

Correctly determined herbarium specimens of these three plants were shown, to draw attention to the problem of ascertaining the real distribution of *C. alpina* in Britain. From a perusal of the sheets of *Circaea* in several public and private herbaria, it is evident that a revision of this small genus is necessary before the distribution of the species can be accurately mapped. Some botanists have considered that *C. canadensis* is a hybrid between *C. lutetiana* and *C. alpina*. This needs to be investigated by cytologists. It is not without significance in this connection that *C. canadensis* rarely sets fruit in this country, all flower usually dropping before fruit develops. *C. alpina* is as abundantly fertile as *C. lutetiana*, and occasionally sets fruit from cleistogamous flowers.

The three species may be distinguished as below, but further study may revise these characters.

C. lutetiana L. Leaf petioles sub-terete, not winged; leaves dull, hirsute, ovate, tapering, sometimes subcordate at base; no bracteole at base of flower pedicel; flower large; fruit abundant, two-seeded.

C. canadensis Hill. Leaf petioles flat, narrowly winged; leaves shining, subglabrous, ovate, tapering; bracteole minute, subulate, deciduous; flower much as in *C. lutetiana*; fruit very scarce.

C. alpina L. Leaf petioles flat with membranous wing; leaves shining, subglabrous, thin, roundish and rather abruptly acuminate; bracteole rather more conspicuous, persistent; flower very small; fruit frequent, one-seeded.

I should be glad to see and determine fresh or herbarium specimens at any time of *C. canadensis* and *C. alpina*. All records of the latter in county floras and lists need revision. *C. alpina* will, I think, prove to be a decidedly rare plant in Britain.

E. C. WALLACE.

HIERACIA OF THE SECTION ALPESTRIA FROM THE SHETLANDS.

The Section *Alpestris* Fries is included by Pugsley in his "Sectionum Grex" *Transitoria*. He recognised 13 species as representing the Section in Britain; of these 12 are endemic and 10 have been found only in the Shetlands (v.-c. 112).

The exhibit included 8 of the special Shetland species arranged in pairs, as follows, to demonstrate the characters used for identification.

- Series DOVRENSIA. *H. pulchelliforme* (W. R. Linton) Pugsley.
H. zetlandicum Beeby.
- Series PROTRACTA. *H. pseudo-protractum* Pugsley.
H. hethlandiae (F. J. Hanb.) Pugsley.
- Series SUBFOLIOSA A. *H. australis* (Beeby) Pugsley.
H. subtruncatum Beeby.
- B. *H. praethulense* Pugsley.
H. vinaceum (Beeby) Pugsley.

With the exception of *H. pseudo-protractum* all the species are extremely local. They exhibit a surprising variation from phyllopodous to hypophyllopodous¹ and aphyllpodous plants within a single group.

J. E. LOUSLEY.

SPECIMENS SHOWING MINT IRREGULARITIES.

Twenty-five sheets of *Mentha* were shown, chosen to illustrate irregularities in characters that rendered identification difficult, and to exemplify certain forms of freak growth. In the former category were hirsute forms of *M. spicata* L. em. Huds., and \times *M. gentilis* L., and a rare form of \times *M. verticillata* L. in which the calyx-tubes and pedicels, usually hirsute, were glabrous. An unusual example of freak growth was shown in a normal stalk of *M. citrata* Ehrh., which, after a foot of upright growth had bent backwards to the ground, and had become a runner.

R. A. GRAHAM.

ELODEA CALLITRICHOIDES AND ASSOCIATED RIVER PLANTS.

Elodea callitrichoides (Planch.) Casp. (exhibited as a member of the genus *Lagarosiphon* owing to a misidentification) is a South American water plant which has recently become established in the Longford River, Middlesex. It is used extensively by aquarium enthusiasts and it has been suggested that its introduction may be due to material thrown out by an aquarist. It is very rampant in growth and, if the history of *Elodea canadensis* Michx. can be taken as a precedent, it is likely to spread rapidly over a considerable area.

It was first noticed by me in the Longford River at Stanwell at the end of September 1950, but I understand that Dr George Taylor found it about two years earlier in the River Colne at Harefield. It may have spread from there to the Longford River. It is of interest that only female flowers have been found up to now.

At Stanwell the plant was growing in great profusion and in places it threatened the existence of the other species exhibited. Amongst these were *Potamogeton crispus* L. and *P. densus* L.: the former restricted to a small patch in the shade of a footbridge, the latter in greater quantity. I remember another *Potamogeton* (not identified or exhibited) which used to grow quite commonly but which is now extinct for a stretch of three to four hundred yards of the River.

The only plant which appears not to be threatened is *Zanichellia palustris* L. which remains dominant in the swifter parts of the water. In contrast *Elodea canadensis* Michx. is now difficult to find.

Other species exhibited were:—*Ranunculus fluitans* Lam. (occurring in small quantity); *Callitriche stagnalis* Scop. and *C. intermedia* Hoffm. (many plants, but only near the banks), *Myriophyllum verticillatum* L. (uncommon) and *Lemna minor* L. (growing freely).

H. C. GRIGG.

EPIPACTIS VECTENSIS (T. & T. A. STEHL.) BROOKE & ROSE.

As a result of searching various herbaria, numerous fresh records of *E. vectensis* (sensu lato) have been brought to light in the last few years, and in some cases it has been possible to re-find the original colonies. Some entirely new stations have also been discovered. The exhibit showed specimens from some of the localities found or re-found in the last two years, and also a distribution map which demonstrated that the species occurs chiefly on calcareous soils, although it is not confined to them.

The distinction between *E. vectensis* and *E. pendula* C. Thos., drawn in *Watsonia* 1, 108 (1949), is now seen to be unsatisfactory. Some of the specimens recently examined show intermediate characters, and mixed characters sometimes occur in a single colony. A remarkable range of variation is found in one colony in a beech-wood on the Cotswolds in E. Glos. (v.-c. 33), originally discovered by Lady Davy in 1935 (sp. in Hb. Druce, as *E. leptochila* Godf.), and re-found by the exhibitor this year. Here within an area of about $\frac{1}{2}$ sq. mile grow plants with almost every combination of

perfect labellum	}	with	{	sessile anther
degenerate labellum				pedunculate anther
or petaloid labellum				

Sketches to illustrate these were displayed.

D. P. YOUNG.

ORCHIS TRAUNSTEINERI SAUT.

The specimens shown were collected in Scraw Bog, Co. Westmeath, v.-c. H23, in June 1950. The species has previously been recorded from Ireland by H. Osvald ("Notes on the Vegetation of British and Irish Mosses," *Acta Phytogeographica Suecica*, 26: 1949) as occurring in Athlone Bog (v.-c. H25) about 30 miles from the present locality. The determination of the Scraw bog plant was confirmed from fresh material by Dr. P. Vermeulen. It is premature as yet to associate the Irish plant with any of the very numerous named continental forms beyond stating that in the sub-division of the species given by Keller & Schlechter (*Monographie und Iconographie der Orchideen Europas* etc., 1928-1940) the Scraw Bog form has closest affinity with var. *eu-Traunsteineri* Asch. & Graeb. A fuller account of the Irish plant (with comment on the nomenclatural problem) is in the course of preparation.

The locality, Scraw Bog, about $\frac{1}{2}$ m. east of Lough Owel, Co. Westmeath, is a notable one. It consists of a depression in the limestone in which has developed bog with rather a mixed assemblage of species—calcicoles and non-calcicoles. *Pyrola rotundifolia*, *Chara tomentosa* and *Nitella tenuissima* occur here—plants all of which possess extremely limited ranges in Ireland. *Orchis Traunsteineri* is common in the south-eastern end of the bog. The drier marginal zones support *O. Fuchsii*; no other dactylorchids were seen in the bog in 1950.

O. CRUENTA MÜLL.

A paper giving descriptive, distributional and other data relating to this species appeared in *Watsonia* (vol. I, pt. VI, p. 366-375). The specimens on show were collected in a calcareous marsh on the shores of Lough Carra, Co. Mayo, v.-c. H26, near Keel Bridge, on the road between Ballinrobe and Partry.

J. HESLOP-HARRISON.

CAREX VULPINOIDEA MICHX.

The species is widespread as a native in eastern Canada and U.S.A. and has been found in S. America in Colombia. It is, or has been, naturalised in various parts of Europe.

There have been few occurrences in Britain (see *B.E.C. 1937 Rep.*, 459, 1938), the most recent being in a damp hollow at Tadworth, Surrey, v.-c. 17, whence specimens were shown. Here it was discovered by Mr. C. T. Prime towards the end of June 1950 growing luxuriantly amongst native vegetation.

Specimens were also shown from a chalk-pit at Green Street Green, near Farnborough, W. Kent, v.-c. 16, where I found it in July 1937. Here it was growing amongst old sleepers under

dry conditions and was very much less luxuriant. It was destroyed by further dumping of rubbish.

J. E. LOUSLEY.

AIRA MULTICULMIS DUMORT.

This plant, variously classed as a species, subspecies or variety of *A. caryophyllea* L. in the past, has been shown to possess twice as many chromosomes as the latter. When typical, it is easily recognisable by its much more robust growth in dense tufts, contracted panicle and smaller, more swollen glumes. It also differs in its relatively very broad, dense, glaucous wintering tufts, and in the numerous new flowering culms, which are developed from the base of the culms which have passed out of flower. This after-flowering may continue through the whole summer and autumn and perhaps even winter, so that polyploidy has been accompanied by an extension in the duration of life.

The species has a well defined distribution, being a native of North Africa and South-west Europe, north to England and Holland. Dumortier found an ecological difference in Belgium: *A. multiculmis* frequents wood borders there, whereas *A. caryophyllea* keeps to bare, sandy places.

In England it is known from Surrey and Buckinghamshire, and it also grows on at least two of the Channel Islands. There are more doubtful records from Devon and other southern counties. More material is needed before its English distribution can be ascertained in detail.

D. E. ALLEN.

VEGETATIVE REPRODUCTION IN OPHIOGLOSSUM VULGATUM L.

The two sheets exhibited were of three plants of the Adder's-tongue fern collected at Mochras, Merioneth, during the Dolgelly excursion in July 1948, and grown at Kew for two years. It is well known that this fern reproduces vegetatively by means of adventitious buds on its roots, but it is very difficult, owing to the brittle nature of these roots, to obtain specimens demonstrating this fact. During the two years of cultivation at Kew, the three original plants had produced, or were in the process of producing, eleven new plants, at distances of from three to nine inches from their rootstocks. That the original plants were also formed in this way is demonstrated by the fact that at the lower extremity of each vertical rootstock is a continuous horizontal root. An examination of specimens in the Kew herbarium indicates that most of these originated in this manner. It seems probable, therefore, that this species relies mainly on these root buds as a means of reproduction, the conditions necessary for the germination of spores and development of prothalli possibly occurring only infrequently in many of its habitats, and observations in the field tend to support this, the plants usually being found in more or less compact colonies.

PETER TAYLOR.

BRITISH CHAROPHYTA.

Dried specimens of two rare species of *Nitella* were shown:—*N. tenuissima* Kuetz. collected by G. H. Roocke and C. West in Sept. 1950 from a new locality near Stoke Ferry, W. Norfolk, and *N. mucronata* Miq. var. *heteromorpha* Kuetz. collected by L. C. Lyon and myself in June 1950 from Amberley Wild Brooks, W. Sussex.

Under a low power binocular some slides were shown from my "British Charophyta, slide series I".

G. O. ALLEN.

2. EXHIBITS OF MIXED SPECIES.

PLANTS OF BERKSHIRE.

The exhibit consisted of twelve of the more uncommon plants found in the county of Berkshire, mounted as herbarium specimens. Chief among them were:—

Illecebrum verticillatum L. Rediscovered at the edge of a sandy road near Wellington College, Berks, in 1949. Prior to 1891, this plant was recorded only from Cornwall, Devon, and the Channel Isles, so its discovery in that year near the damp sandy margin of a pool near Wellington College, Berks., was of singular interest. Druce in his 1919 Supplement to his *Flora of Berkshire*, records it again for that area, so it is most encouraging to know that during fifty odd years, this uncommon little plant is still holding its own.

Anemone Pulsatilla L. Found on the Berkshire Downs, has survived the most ruthless blasting from shell practice during the war. The threat now is from a too ruthless picking and uprooting of plants which may ensue from a more easy accessibility to the slope on which it grows.

Hottonia palustris L. One of the plants which is unfortunately suffering from the vast system of drainage that is being carried out in many parts of England. It has gone from two localities in the Borough of Reading, where formerly it flourished, but it still survives with difficulty in a pond near Grazeley, Berks.

Fritillaria Meleagris L. Continues to flourish in some damp meadows by the River Loddon near Reading.

Drosera rotundifolia L. and *D. longifolia* L. Found in several bog areas in the county.

Lotus siliculosus L. This forage plant of South Europe appears to be spreading on one or two chalk slopes.

K. I. BUTLER.

SPECIMENS OF PLANTS COLLECTED ON THE INTERNATIONAL EXCURSIONS
TO:—

- i. The Abisko district of Northern Lappland, and
- ii. the Alps, with a diagram to show the route taken.

A. N. GIBBY.

SPECIMENS FROM THE BURREN, CO. CLARE.

F. M. BARTON.

3. MAPS.

MAPS ILLUSTRATING THE SPREAD OF SOME RELATIVELY RECENT ADDITIONS
TO THE BRITISH WEED FLORA.

(These maps, together with specimens of the species concerned, formed an exhibit which was included in the Temporary Exhibition 'Weeds and Weed Control' held in the Department of Botany, National Museum of Wales, Cardiff, May-October 1950. Exhibited by the courtesy of the Museum.)

The maps relate in the main to plants which have come into this country since the year 1800, though a few species are included which arrived earlier but did not spread until more recently. Each map is tinted so as to show how the species concerned has spread within the British Isles since the date of its arrival or first record. (The time value of the various tints employed varies from one map to another.)

It was formerly supposed that most weeds of cultivation were introduced into this country by man in the course of plant and animal husbandry, but many wild species at present confined to fields and waste places are now known to have colonised the ground left bare by the decay of the ice sheet at the end of the last Glacial Period. If, as seems probable, these plants have persisted in suitable situations ever since, they must be regarded as natives. Doubtless, their numbers have also been swelled in the course of time by other species brought in with grain; this kind of invasion must have begun some 4,000 years ago and probably is still going on; it has been reinforced in the neighbourhood of seaports by the former practice of ballasting.

Until about 1930 or later ships used to arrive in Wales from abroad carrying ballast in the form of soil or sand. This material was discharged on arrival and dumped at or near the port concerned; from the many weed seeds which it contained sprang the alien plants still to be found growing around the docks.

Some of our more recently established weeds have escaped from gardens.

H. A. HYDE & A. E. WADE.

SELECTED MAPS SHOWING THE DISTRIBUTION OF VARIOUS SPECIES IN THE
ISLE OF MAN.

D. E. ALLEN.

4. MS. AND DIAGRAMS.

GEOGRAPHICAL ELEMENTS IN PLANT DISTRIBUTION OF GLOUCESTERSHIRE.

The floristic, as distinct from the ecological, distribution of plants involves geographical factors, and is, in effect, to be determined by the comparison of floras. The total of species of any one *country* comprises an artificial flora; true floras are independent of national boundaries.

Professor J. R. Matthews (*Journ. Ecol.*, 1937, **25**, 1-90) has made a classification of true floras of continental Europe and has termed these Elements, distinguishing fifteen. Ignoring species which are common to many or all of them, he has listed the species which appear to belong to each Element in the sense of having their head-quarters in it.

As Britain has been almost completely recolonised from the continent since the last Ice Age, the geographical distribution of British plants must be studied by determining the locations of the species peculiar to each Element which have reached this country.

The Tables exhibited are an attempt to indicate by figures and graphs the distributions of ten of the Elements which are those which appear to occur in Gloucestershire. The area appeared to be too small for one to hope for any conclusions, but some points of interest seem to emerge.

TABLES.

Each Table shows the distribution of the species of an Element in Gloucestershire and Britain in vertical columns. The first eight columns represent botanical districts as used in the *Flora of Gloucestershire*. These are (1 omitted): 2a, 2b The Vale; 3 R. Leadon area; 4 Forest of Dean and Wye Valley; 5 Bristol district; 6 Stroud district; 7a North Cotswolds and 7b South Cotswolds. The next columns indicate areas in Britain—South England, Midlands, North England, Lowlands and Highlands. a=acidophile, b=basic (calciphile), (N), (W), (S)=north, west and south marginal. Number at bottom of list of names=number of species whose distribution is general. Aliens omitted. 251 species, out of the Glos. total of 1189 species, = 21%, are included in the Tables.

CONCLUSIONS.

- Tables XI and XII show districts 4 and 5 as having a marked excess of species over the others. These two districts are the western ones and might be termed 'Oceanic Districts'.
- This excess is much greater with Oceanic Elements than with Continental Elements.
- The less variable graphs are of the three Continental Elements, which are more adapted to cold hills and dry Vale.

- Average excess % of 3 Continentals in 4 and 5 over 7=22%.
- Average excess % of Mediterranean and 3 Oceanic in 4 and 5 over 7=64%.

Table XIII shows the 2 groups with Littoral species excluded. Here both graphs are flatter, and

- 15% of species approaching from E. could not cross Cotswolds and had to find their way round.
- 30% of species approaching from S.W. were unable to ascend Cotswolds, though they found their way round to counties to the east.
- Therefore Cotswolds have been a greater barrier by 15% to the eastward passage of southern species than to the westward passage of eastern species.

Table XIV Analysis shows:—

- The first seven Elements show nearly equal percentages for Gloucestershire and Britain.
- The three chief Continental Elements are largest for both.
- % of total Continental Elements are the same in both.
- % of total Oceanic Elements are the same in both.
- This indicates that Gloucestershire is botanically a Midland county, being a meeting place of two sets of ecological factors, and so of the representatives of these, the Continental and the Oceanic Elements.

W. R. PRICE.

UNCOMPLETED MANUSCRIPT OF THE "FLORA OF THE RUGBY DISTRICT".

This was compiled while the author was at school, and will be published in parts as supplements to the Annual Reports of the Rugby School Natural History Society.

D. E. ALLEN.

BOTANICAL CARTOONS.

Examples were exhibited from two of the books containing a remarkable series of cartoons by "A. Carex" issued in Berlin in 1870.

Leiden und Freuden des Botanikers, Part 1, illustrating "Sorrows and Joys of Botanists," was one of the books shown. Each cartoon caricatures an experience familiar to all interested in plants—the one selected for display being No. 14, "Das schoenste Exemplar so nahe und doch nicht zu erreichen" (the finest specimen so near and yet out of reach).

The other book chosen for exhibition was *Illustrationen zur deutschen Flora*, Ed. 2, in which each cartoon caricatures one or two species of phanerogams. The example shown, portrays a nodding stone-mason by his work, No. 40 in the book, and neatly represents *Saxifraga cernua* L.

J. E. LOUSLEY.

PHOTOGRAPHS AND SPECIMENS ILLUSTRATING LA COUPE BOTANIQUE DES
ALPES. M. S. CAMPBELL.

5. PHOTOGRAPHS.

PHOTOGRAPHS OF DACTYLOPACHIDS.

Seventeen photographs were shown, all of plants *in situ*. They included pictures of the commoner English species and, of these, four plants of *O. ericetorum* from one colony showed striking variation. In addition, photographs of two Swedish forms of *O. maculata* were shown, and of a hybrid between one of them and *Coeloglossum viride*.

M. C. F. PROCTOR.

PHOTOGRAPHS OF THE FIELD MEETING AT HALLING DOWN.

These were taken at the meeting arranged for the study of Roses on September 16, 1950 (see p. 73). They showed the leader demonstrating the characters of several bushes, and groups of members discussing the special subject of the day.

K. H. LE SUEUR.

6. PAINTINGS.

PAINTINGS OF ETHIOPIAN PLANTS.

A collection of paintings of sixty flowering plants collected by Mrs. C. L. Curle and her daughter, Miss Christian Curle, in Ethiopia during 1948-1949. The majority were from the district around Addis Ababa, but some were from the south-western province of Jimma and the forest region of Kaffa.

C. L. CURLE.

NORTH LONDON FUNGI COLLECTED AUTUMN 1950, PAINTINGS AND LIVING
SPECIMENS. M. SCHOLEY.

"VICTORIA REGIA"—THE EMBLEM OF THE SOCIETY

By J. E. LOUSLEY

This paper was read after the Annual General Meeting on
April 14th, 1951.

(Certain epithets are spelled in this paper with initial capitals as in the original publication although this is contrary to modern usage.—

J.E.L.)

The Society's emblem as printed on the title page of the *Year Book* and certain other publications is a drawing of a tropical water-lily. It is headed "Victoria regia" and underneath are the words "Floreat Flora". The design has no very obvious connection with the present activities of the Society and it is not surprising that its use puzzles many of our members. As the association of the plant with our early history is apparently not widely known, the present paper is intended to make this clear.

The Victoria, Royal or Amazons Water-lily is one of the most remarkable productions of the vegetable world. The huge, round, floating leaves, sometimes over six feet in diameter, with firm margins raised several inches at right angles to the water, are so strong that they can carry the weight of a nine-year old child. Caspary found that they could increase four or five square feet in twenty-four hours, and that they could grow in length at the rate of about an inch an hour when just expanding. On the lower surface they have a close network of prickly veins; the petioles are like massive cables covered in prickles. The flowers measure twelve to eighteen inches in diameter and open in the evening. In cultivation in this country these great plants are grown annually from seed, and it is often difficult to convince visitors to Kew that such a large structure has been produced in the course of a single season.

British botanists first heard of the discovery of this plant at a meeting of the Botanical Society of London on September 7, 1837. This Society had been established on July 27th of the previous year, at a "Meeting of the Practical Botanists in London" convened at the Crown and Anchor Tavern in the Strand. Its activities included the exchange of herbarium material. This work has continued without a significant break under various titles, to be expanded again within living memory into the wider functions of our Botanical Society of the British Isles.

In 1835 the Royal Geographical Society sent R. H. Schomburgk to British Guiana and in July 1837 their Secretary received from him a packet containing drawings and a description of the water-lily in duplicate (Lindley, 1851). In accordance with his request one set was forwarded to the Secretary of the Botanical Society of London. It was exhibited and discussed at the September meeting of our forerunners

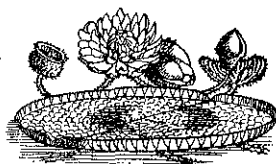
already mentioned. Schomburgk's account of the circumstances in which he found the "vegetable wonder" and his descriptions of its various parts were read in full. The drawings prepared in South America were exhibited and the President (J. E. Gray) then proposed:—

"that Mr. Schomburgk's intention of naming it after her present Majesty VICTORIA should be carried into execution, her Majesty having previously granted her permission. It was therefore named 'Victoria Regina', and the Society has adopted this plant as its emblem . . ."

The name was printed as "Victoria Regina.—Schomburgk". It seems that specimens followed later, and a leaf was exhibited at the Society's meeting of April 6, 1838. This leaf the Council "deemed advisable to deposit in the Herbarium of the British Museum" and it may still be seen in the collections at the Natural History Museum. It is mounted on two folded double sheets—one opening out to show the upper, and the other the lower, surfaces of part of the huge leaf. There is also material of the gathering at Kew and Cambridge (see below).

The first printed account of the meeting of the Botanical Society of London of September 7, 1837, appeared in the issue of the *Athenaeum Journal* for two days later. Schomburgk's description was quoted at length and the name given as *Victoria regina*—it was the earliest publication of the name (Schomburgk, 1837a). On September 11th, J. E. Gray read Schomburgk's letter again and exhibited the drawings at a meeting of the British Association, and this was reported the following month (Gray, 1837a). In November, Gray published the letter in the *Magazine of Zoology and Botany* (Gray, 1837b). This was accompanied by a plate on which the name is given as *Victoria Regalis* (Schomburgk, 1837b). The first (and only) part of the *Proceedings of the Botanical Society of London*, containing an account of the meeting of September 7, 1837, with reproductions of Schomburgk's drawings, did not appear until 1839 (Schomburgk, 1839). Our present emblem, reproduced below, is reduced from Plate 6, etched by Miss Gray, which formed the frontispiece to this publication. It shows a leaf and (from left to right) "a fruit, a perfect flower, drooping flower and flower bud".

Victoria regia



Floreat Flora

Meanwhile the Royal Geographical Society had not been idle with their own copy of the letter and set of drawings. Following Schomburgk's suggestion they had obtained Queen Victoria's permission for

the plant to be named for her, and they commissioned Professor John Lindley of University College to write it up. Under the name *Victoria regia*, he described the water-lily in an outsize pamphlet of three pages with one plate, of which only twenty-five copies were printed. The preface was dated October 1837 and it was reprinted with some additional matter in the *Botanical Register* the following February (Lindley, 1838). The type-specimen of *Victoria regia* is the sheet of Schomburgk's gathering in Lindley's herbarium at Cambridge.

It is evident that the arrival of the description, drawings and specimens of the Royal Water-lily caused a great sensation, not only in the botanical world but amongst the British public in general. We may be proud that it was at a meeting of our forerunners that they were first exhibited. But it is to be regretted that they led to a race for publication between Gray and Lindley and hence to the acrimonious correspondence which ensued at a later date (Gray, 1850; Lindley, 1851; Hooker, 1851). Reading this a century later it seems clear that both men were actuated by the highest motives. Gray's publications seem to have had the sole object of securing publication on behalf of Schomburgk, and in doing this he made the minimum use of his own name. Lindley's object was to carry out the commission of the Geographical Society who had sent out the collector. The unsatisfactory situation was almost inevitable from the duplication of the material and the way it was sent to this country. Perhaps, therefore, it is fortunate that questions of priority over the publication of the accounts of these two botanists are of relatively little importance. As will be shown below, Lindley's *Victoria regia*, which has been accepted for so long, must give way to an earlier name.

Before discussing this, a few facts about the life of the collector of the water-lily deserve mention. Robert Hermann Schomburgk was born in Silesia in 1804. Much of his life was spent in travel in little known parts of the world and he rendered very valuable services to botany. The Botanical Society of London honoured him by election as a Foreign Member at their meeting of April 20, 1838. In 1844 he was knighted (and it seems not unlikely that the discovery of a plant named for the Queen may have had some influence in this), and in 1859 he was elected F.R.S. He died near Berlin in 1865.

Schomburgk's discovery of the Royal Water-lily was the first to be brought to the notice of British botanists, but it was not new to science. It appears that the species was first noticed by Haenke in the province of Moxos, Bolivia, in about 1801, but, owing to the death of this botanist in the Philippines before the end of his expedition, the plant was not described. In 1819, Bonpland found a giant water-lily near Corrientes, Argentina, which was again seen there by D'Orbigny in 1827, when specimens and drawings were sent to Paris. This Argentine plant is the closely related *V. Cruziana* D'Orbigny but its author refound the species we have known as *V. regia* in Bolivia in 1833. In 1832, Poeppig found the latter on the Amazons, and he described it in the same year as *Euryale amazonica* (Poeppig, 1832).

Euryale is a monotypic genus of S.E. Asia from which the Amazons plant clearly differs, and Sowerby transferred Poeppig's epithet to *Victoria* in 1850. Hooker (1851, 11) rejected the proposal out of hand and wrote: "We put wholly aside *Euryale Amazonica* Poeppig, well enough matched with one of the Furies, but totally unsuited to be in connection with the name of Her Most Gracious Majesty, whom it is intended to commemorate, and also as being inappropriate to a plant which is neither confined to the Amazon River nor was even originally detected there". Lindley (1851) was equally determined to reject the earliest trivial. It must be remembered that they were both too close to the patronage of a Queen with a mind of her own to express completely detached views!

Lawrence (1949) has recently shown that the correct name for the plant is *Victoria amazonica* (Poeppig) Sowerby (1850), and he gives the synonymy as follows:—

- Euryale amazonica* Poeppig (1832)
- Victoria regia* Lindl. (1837)
- V. regina* J. E. Gray (1838)
- V. regalis* Schomb. (1838)
- Anneslea amazonica* Presl (1844)
- Victoria amazonica* Klotzsch (1847)
- Victoria reginae* Hook. (1850)

From this it would appear that Klotzsch's combination of 1847 has priority over Sowerby's of 1850. Klotzsch, however, wrote *Victoria Amazonum* and Mr. N. Y. Sandwith, whose help I most gratefully acknowledge, observes that while Klotzsch was attempting to do exactly what Sowerby did three years later in "pointing out the earlier publication of Poeppig's name for the same species described by Lindley as *V. regia* and recognising the validity of the independent genus *Victoria* and the consequent need for transferring Poeppig's name to it, he deliberately made an unauthorised name-change, and wrote *Victoria Amazonum* genitive plural of a noun). This was not a slip on his part since in the synonymy quoted by him he deliberately writes:—*Victoria regia*, *Victoria Regina*, *Euryale amazonica*, *Victoria Cruziana*". Mr. H. K. A. Shaw and Mr. Sandwith are agreed that Klotzsch's "*Amazonum*" should be regarded as a "new, substituted, illegitimate, epithet" rather than a slip of the pen and they suggest that Professor Lawrence appears to have taken the same view: otherwise he would have adopted Klotzsch's combination which by an unfortunate oversight appears as "*Victoria amazonica* Klotzsch" in his own synonymy.

It would seem that the synonymy should be given as follows:—

- Euryale amazonica* Poeppig (1832)
- Victoria regina* Schomburgk (Sept. 1837)
- Victoria regia* Lindley (after Oct. 16, 1837)
- Victoria regalis* Schomburgk (Nov. 1837)
- Anneslea amazonica* (Poeppig) Presl (1844)
- [*Victoria Amazonum* Klotzsch (1847)—illegitimate]
- Victoria amazonica* (Poeppig) Sowerby (1850)
- Victoria reginae* Hooker (1850)

To return to the connection of the Royal Water-lily with our own affairs—After adoption of the emblem in 1837 the Botanical Society of

London appears to have made no further use of it that has been recorded. In fact, as we shall see later, they published an emblem of quite a different design in 1844. Their descendants apparently made no use of a badge until 1922. In that year Dr. G. C. Druce, Secretary of the Botanical Society and Exchange Club of the British Isles, had occasion to investigate early records in connection with a paper on the history of the Society published in the *Report* (Druce, 1923). In this he mentions the "badge or crest" and the meeting of 1837 referred to above. A reproduction of the original plate, headed "*Victoria Regina*", with "Floreat Flora" below appeared on the title pages of both the Secretary's and Distributor's *Reports* for 1922 (issued May 1923). The use of this block was continued on the title-pages of the *Reports* of the Society until the series terminated in 1947. In that year, the name of the Society was changed to the present title, and the publications rearranged as *Watsonia* and the *Year Book*. For the latter a new block of the emblem was prepared from a drawing kindly made for us from the original plate by Mrs E. Milne-Redhead. In this the name of the species has been altered to *Victoria regia*.

There is clearly room for difference of opinion about the name to be used in future in our emblem for the species depicted. If the view is taken that we must use the correct name—and clearly there is much to be said for this—then it must be given as *Victoria amazonica*. Others will regret any suggestion that the long accepted *Victoria regia*, which appears at present, should be dropped. It could also be contended that *Victoria Regina* was the name printed on the original plate and the one with which the Society has direct connection, and that there is a case for using it irrespective of the fact that it is no longer accepted as the name of the species.

"Floreat Flora" which appears under the emblem may perhaps be translated as "May Flora flourish" or "Let the flora blossom" but it is difficult to convey in English the implications of the original.

It must be admitted that a tropical water-lily is *prima facie* a most unsuitable emblem for a Society which has as its object the encouragement of the study of the flora of the British Isles. Our forerunners' studies ranged over a much wider field. Nevertheless the badge has been in continuous use throughout the membership of all but a very few of our oldest members and has an interesting history. Moreover the plant portrayed is one which suggests desirable characteristics in its rapid growth, great strength and the manner in which it forms a natural radiating pattern. It serves to remind us of the success which rewarded its discoverer's struggle against great difficulties in his passage up the river, and of a link with a noble Queen early in our history.

So much for the main subject of my paper, but I think I should also draw your attention to the other emblem used by the Botanical Society of London. Although they adopted *Victoria Regina* in 1837 they used a very different design on the covers of the first five editions of the *London Catalogue of British Plants* published under their direction in 1844, 1848, 1850, 1853 and 1857. On these there is a portrait of John

Ray, wreathed in myrtle, and circled by the words "Botanical Society of London. Instituted Nov. 29, 1836." It is clear that the Society held Ray in very high honour, as evidenced by the selection of the anniversary of his birth, November 29th, as the day fixed for their Annual General Meeting.

The drawing of Ray agrees fairly closely with the version of Faithorne's portrait engraved by G. Vertue in 1713, which is reproduced in Canon Raven's *John Ray*. It differs, particularly in the hair and the width of the bands, from the portrait as published in Ray's own *Stirpium Europaeorum Sylloge*, 1694; and the third edition of his *The Wisdom of God*, 1701, and from the one in Derham's *Select Remains* . . . , 1760.

The Ray Society uses a rather similar design. This society was founded in 1844, the year in which the first edition of the *London Catalogue* appeared, but its first publication was not issued until 1846. In its emblem Ray faces to his right instead of his left as in the Botanical Society of London's badge, and there are further differences in the hair and bands from the reproduced portraits already mentioned. The Ray Society has continued the use of this design on its publications up to the present time.

In conclusion I should like to express my indebtedness to Messrs. N. Y. Sandwith and H. K. A. Shaw for assistance in connection with the nomenclature, to Mr. D. H. Kent for transcribing the whole of the account in the *Athenaeum Journal* from the British Museum copy, to the Keeper of Botany, Natural History Museum for allowing their copy of the first edition of the *London Catalogue* to be photographed, and to Messrs. J. A. Crabbe and B. T. Ward for assistance in connection with the lantern slides.

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NOTICES TO MEMBERS

ENQUIRIES ABOUT MEMBERSHIP

Botanists 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 from new members should be paid to the Hon. Treasurer, Mr. E. L. Swann, 282 Wootton Road, King's Lynn, Norfolk.

WATSONIA

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

YEAR BOOK

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

SPECIMENS FOR IDENTIFICATION

Ordinary (non-critical) specimens for identification may be sent to the Hon. General Secretary. In the case of critical species, the Society's Panel of Specialists for Critical Systematic Groups (see pages 103-6) should be consulted.

ADVERTISEMENTS

All inquiries for advertising space in the Society's publications should be addressed to Mr. R. A. Graham, Mint House, Woodside Road, Northwood, Middlesex.

PUBLICATIONS

A list of the Society's publications available for sale will be found at the end of Year Book. They may be ordered from Mr. J. H. Burnett.

PAST *B.E.C. REPORTS* REQUIRED.

The Society is anxious to obtain copies of *B.E.C. Reports* for the years 1879, 1886, 1903, 1909, and 1910; Vol. III, parts 2 and 3, Vol. IV, parts 4 and 5, Vol. V, parts 1 and 3. Will anyone in possession of these parts who wishes to dispose of them please communicate with the Hon. General Secretary.

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".

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 joining 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.

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.

REPORT OF THE SECOND CONFERENCE

In accordance with the wish widely expressed at the Conference on "Aims and Methods in the Study of the Distribution of British Plants," arranged by the Society on March 31st and April 1st, 1950, the Council decided to publish the proceedings. These have been issued in the form of a book on the lines of *British Flowering Plants and Modern Systematic Methods*, which was the report of our first Conference.

The book contains all the papers read to the meetings and accounts of all the exhibits and is freely illustrated. It is published at 10s, plus postage 4d, obtainable from Mr. J. H. Burnett, Department of Botany, The University, Oxford. As stated in the notice already circulated, members had the opportunity of subscribing, before June 1st, 1951, for a copy at the reduced price of 5s. Thanks are due to Mr. W. R. Price, the Honorary Assistant Secretary, for dealing with these applications from members.

The title of the book is *The Study of the Distribution of British Plants*, and the circumstances of its issue are so similar to those under

which the First Part of the *Proceedings* of our forerunner the Botanical Society of London was published in 1839, that the following extract from the preface to that volume is as apt as it is interesting.

"The Council moreover trust that each individual Member will subscribe for a copy, and will likewise use his endeavours with his friends to do as much as possible in helping to defray in this way the expenses attendant on them: owing to the low Annual Subscription and the several advantages the Members receive for it, it has not been found practicable to present them gratuitously to the Members."

LIST OF PEMBROKESHIRE PLANTS

By the generosity of relations of our late member Mrs. F. L. Rees, a limited number of copies of her posthumous *List of Pembrokeshire Plants* have been made available gratis to members of the Botanical Society of the British Isles. Members who wish to take advantage of this kind offer should apply to Mr. A. L. Leach, M.Sc., F.G.S., The Museum, Castle Hill, Tenby, enclosing stamps to the value of sixpence to cover postage.

EXCHANGE SECTION

The Council are pleased to announce that Miss C. W. Muirhead has kindly undertaken to act as Distributor for the 1951 season. Parcels should be sent to her (c/o Carlisle Public Library, Museum and Art Gallery, Carlisle) not later than December 1st 1951.

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

There is now no separate Exchange membership. 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. General Secretary not later than the 28th February of the winter of distribution (see Rule 8 (h)).

INSTRUCTIONS TO CONTRIBUTORS TO WATSONIA

Instructions to contributors to *Watsonia* will be found on the inside back cover of that periodical. More detailed instructions for Plant Records will be found in *Year Book 1949*, and reprints of these instructions will be supplied free to new members on application to the Hon. Assistant Secretary.

MEMBERS' ADVERTISEMENTS

Members' advertisements are charged at 2s 6d for three lines, and 9d for each additional line, with maximum of six lines. They should be sent to Mr. W. R. Price, 64 Elsworthy Road, London, N.W.3.

PROFESSIONAL ADVERTISEMENTS

A limited number of relevant advertisements will be accepted either for the *Year Book* or for *Watsonia*, or for both, as space permits. Enquiries should be addressed to Mr. R. A. Graham, Mint House, Woodside Road, Northwood, Middlesex.

BINDING CASES FOR WATSONIA

Arrangements are being made for the issue of a standard binding case for the first volume of *Watsonia* and details will be advertised as soon as possible. In the meanwhile members are advised not to have their parts bound privately if the official case is likely to be of use to them.

EXHIBITION MEETING, 1951

This has been arranged for Saturday, October 20th, at the British Museum (Natural History) by kind permission of the Trustees. More space will be available for exhibits than in previous years and members are invited to bear this in mind during the summer with a view to illustrating particular subjects. A notice giving full details of the meeting, and the address to which offers of exhibits should be sent, will be sent out in the autumn.

CONFERENCE, 1952

A Conference under the title of *The Changing Flora of Britain* is being arranged for Friday and Saturday, April 4th and 5th, 1952, in the Lecture Room, Royal Horticultural Society's New Hall, Greycoat Street, S.W.1. During the Conference there will be a session set aside for a special exhibition. Exhibits must be strictly relevant to the subject of the Conference and offers may be sent to Dr. J. G. Dony, 41 Somerset Avenue, Luton, Beds. A number of well known botanists have already undertaken to read papers and a separate notice will be sent out early in 1952.

INTERNATIONAL COMMISSION FOR PLANT SLIDE EXCHANGES

Societies and individuals may become members of the Commission. Members are expected to collect and send material for slide-making purposes, for which they may obtain slides in exchange.

Particulars may be obtained from the Assistant Secretary, or from Dr. D. A. Johansen, 861 East Columbia Avenue, Pomona, California, U.S.A.

LIST OF COUNTY FLORAS IN PREPARATION

Twenty-four new County Floras are at present being prepared, some of which are revisions of previous editions, while others deal with counties or vice-counties that have not previously been covered. The

list which appears below unfortunately lacks details concerning certain Floras, since it was hastily compiled for the *Year Book*, in the belief that it would be of use to members even in its present form. The compiler would be grateful for any missing details, additions or corrections, so that a more complete version can appear in the next *Year Book*. Only the addresses of non-members have been given; the rest can be found in the Society's publications. Some of the Floras deal only with flowering plants, ferns and charophytes (P., for Phanerogamic), but others include various groups of Cryptogamic plants (C.) as well. The dates indicate the respective years of commencement.

- 1B. Scilly Isles. J. E. Lousley. P. c. 1935 (ready for publication).
- 7, 8. Wiltshire. J. D. Grose.
- 15, 16. Kent. F. Rose. P., C. 1942.
- 18, 19. Essex. B. T. Ward. P. 1948.
21. Middlesex. D. H. Kent. P. 1939.
30. Bedfordshire. Dr. J. G. Dony. P. c. 1935.
35. Monmouthshire. A. E. Wade. c. 1927.
38. Warwickshire. Birmingham N.H.S., ed. R. C. Readett. P. 1950.
39. Staffordshire. E. S. Edees.
40. Shropshire. Caradoc and Severn Valley Field Club. P., C. ante 1914.
- 53, 54. Lincolnshire. Miss E. J. Gibbons. P. 1951.
56. Nottinghamshire. Dr. R. W. Butcher.
57. Derbyshire. Prof. A. R. Clapham (ed.).
59. South Lancashire. Liverpool Botanical Society, Ed. W. G. Travis. P., C. 1906.
- 66-68. Northumberland and Durham. Prof. J. W. Heslop Harrison, Dept. of Agriculture, King's College, Newcastle-upon-Tyne, 1. P. 1919.
- 69B. Furness. G. Wilson.
70. Cumberland. Miss C. W. Muirhead. P., C. 1946.
71. Isle of Man. D. E. Allen. P., C. 1949.
90. Angus. Dr. G. Taylor.
98. Argyll. Dr. K. N. G. MacLeay.
- 102-104. Inner Hebrides. } King's College, Newcastle-upon-Tyne, 1. P.,
110. Outer Hebrides. } C. 1934.
110. Outer Hebrides. Miss M. S. Campbell. P., C.
- H.33. Fermanagh. R. D. Meikle.

A list of Local, as distinct from County, Floras will follow in due course.
D. E. ALLEN.

FUNCTIONS OF LOCAL SECRETARIES AND RECORDERS

PREAMBLE

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 felt that Local Secretaries and Recorders should not 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. On the appointment of a Local Secretary or Recorder, he/she 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 and excursions 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. Field 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 living 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 General Secretary of the Society 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 April 1951)

The following members have agreed to act as Local Secretaries (L.S.) and Recorders (R.) for the Vice-Counties indicated. Unless shown otherwise, these members 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.)
 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. Jernyn (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.). Dr. E. F. Warburg (R.)
 24. Dr. E. F. Warburg (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. S. M. Walters.
 30. Dr. J. G. Dony.
 31. J. L. Gilbert
 32. D. Hepburn
 33. C. C. Townsend (L.S.). W. R. Price (R.)
 34S. Dr. J. H. Davie (L.S.). W. R. Price (R.)
 34N. C. C. Townsend (L.S.). W. R. Price (R.)
 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.)
 50, 51. A. E. Wade (R.)
 52. Prof. P. W. Richards (L.S.). A. E. Wade (R.)
 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.)

- V.-c. 58. *Ch.* W. D. Graddon.
 59. *S. L.* 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
 66. Dr. D. H. Valentine (L.S.). G. W. Temperley (R.)
 67, 68. G. W. Temperley.
 69. G. Wilson (L.S.). B. Hopkins (R.)
 70. J. D. Hinde (L.S.). Miss C. W. Muirhead (R.)
 71. G. H. Sewell (L.S.). D. E. Allen (R.)
 72-74. Dr. H. Milne-Redhead
 78-84. Dr. G. Taylor (R.)
 85. Mrs E. J. Balfour (L.S.). Dr. G. Taylor (R.)
 87-89. Miss M. S. Campbell
 90. Miss U. K. Duncan (L.S.). Dr. G. Taylor (R.)
 94, 95. Miss M. McCallum-Webster
 97. J. E. Raven (L.S.). E. C. Wallace (R.)
 98. E. C. Wallace (R.)
 102, 103. Miss C. W. Muirhead
 104. J. E. Raven (L.S.)
 105-108. E. C. Wallace (R.)
 109. Miss M. S. Campbell (R.)
 110. Miss M. S. Campbell
 112. J. E. Lousley (R.)

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.

(Copies may be obtained from the Hon. Assistant Secretary.)

PANEL OF SPECIALISTS

(Revised April 1951)

CRITICAL SYSTEMATIC GROUPS

B.P.L. no.

2. *Thalietrum* 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* L. (excluding *Rorippa*). H. K. Airy Shaw
 45. *Cochlearia* L. Prof. A. R. Clapham
 64/3. *Thlaspi alpestre* L. Prof. A. R. Clapham

B.P.L. no.

88. *Viola* § *Nomimum*. 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.
 183. *Prunus* L. Dr. R. Melville, Dr. E. F. Warburg
 185. *Rubus* L. F. Rilstone (S.W. 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. Dr. 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. *Centaureium* 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. V. S. Summerhayes, C. P. Thomas, Dr. D. P. Young
 669. *Orchis* L. § *Dactylorchis*. Dr. P. Vermeulen
 718. *Juncus* L. Dr. P. W. Richards

B.P.L. no.

- 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
- 826. *Festuca* L. Dr. W. O. Howarth
- 830. *Agropyron* Gaertn. Prof. T. G. Tutin
- 844→ *Pteridophyta*. A. H. G. Alston
- 872→ *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.

(Copies may be obtained from the Hon. Assistant Secretary.)

Unlike the pre-war Panel of Referees (*B.E.C. Rep. 1936*, 639-646: 1938) this list includes only critical groups. Members may send their specimens direct to the specialist indicated, together with a stamped addressed envelope for reply. If the specimens submitted are required to be returned the necessary postage should be forwarded. Addresses as in Members List.

Non-critical plants for identification should be sent to the Hon. General Secretary. It may not be possible to undertake to name plants of critical groups not covered by the above list.

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.

MISCELLANEOUS SUBJECTS

(Revised April 1951)

- 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).

(Copies may be obtained from the Hon. Assistant Secretary.)

PROGRAMME OF FIELD MEETINGS FOR 1951

- May 4th to 7th. IPSWICH.
 Leader: Mr. F. W. Simpson.
 June 15th to 18th. MONMOUTH.
 Leader: Mr. A. E. Wade.
 June 23rd. HALLING DOWN (KENT) for Roses.
 Leaders: Dr. R. Melville and Mr. F. Rose.
 June 30th. CLIVEDEN (BUCKS.) for Grasses.
 Leader: Mr. C. E. Hubbard.
 July 6th to 10th. ARBROATH.
 Leaders: Miss U. K. Duncan, assisted by Miss M. S. Campbell.
 July 27th to 30th. READING.
 August 3rd to 11th. BARROW-IN-FURNESS.
 Leader: Mr. G. Wilson.

PERSONALIA

FLORA OF ISLE OF MAN

Mr. D. E. Allen, 32 Waterloo Road, Birkdale, Southport, Lancs., has commenced work on a *Flora of the Isle of Man*, which includes plotting the distribution of every native species on maps. He would be grateful for any plant records, details of botanical visits to the Island and any information leading to the location of Manx herbarium specimens.

FLORA OF DERBYSHIRE

During the autumn of 1949 a committee was formed, under the chairmanship of Prof. A. R. Clapham, to carry out a revision of W. R. Linton's *Flora of Derbyshire*. Work on this project is now actively proceeding, and members possessing records, notes or other data relating to the Derbyshire flora are invited to communicate with the B.S.B.I. Local Secretary, Mr. R. H. Hall, 2 Hartington Terrace, West Road, Buxton, Derbyshire.

V.C. 90 ANGUS

Members who have heard that Glen Doll Lodge, Clova, has been taken over by the Forestry Commission, may be glad to know that so far only the part of the glen immediately above the lodge is being enclosed for planting. One of the stations for *Malaxis* appears doomed, but the plant is not rare in Clova. It is believed that it will be a long time before there is any threat to the Clova rarities.—U. DUNCAN.

FLORA OF WILTSHIRE

Our Member, Mr. J. D. Grose, is preparing a new *Flora of Wiltshire*. He would be grateful for records and details of herbarium specimens.

×*STACHYS AMBIGUA* SM.

Mr. P. S. Green of the Department of Botany, The University, Birmingham, 15, would be very grateful for information about populations of ×*Stachys ambigua*, growing with one or both of its putative parents, *S. palustris* L. and *S. sylvatica* L.

Anyone able to inform Mr. Green of such populations is asked to communicate with him at the above address.

POTERIUM, SANGUISORBA AND ALLIED GENERA

Mr. T. R. Laycock is interested in preparing a much needed monographic revision of the above, and would be grateful for both material and information. The material may be herbarium and/or pickled for anatomical and cytological study, but not living material for the time

being. He is compiling the accounts of the species in the *Biological Flora of the British Isles* and would again be grateful for any help.

SYSTEMATICS ASSOCIATION: RESEARCH COMMITTEE

Mr. B. L. Burtt, Convener of the above Committee, asks members who are engaged in autecological and/or cytogenetic-taxonomic researches on the British Flora to co-operate with the Committee by notifying him of the names of the species being studied. By doing so, it will be possible to obviate overlapping between different workers unknown to one another, and will enable him to give information about the work going on in any particular group. Particulars should be sent to Mr. B. L. Burtt, Royal Botanic Garden, Edinburgh.

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.

POLYGONUM (SECT. AVICULARIA)

Mr. D. W. Jowett is working on the above section of *Polygonum* in Britain. He would be very grateful for both material and information. The material may be living (including seed), herbarium and/or pickled for anatomical and for cytological study.

OBITUARIES

THE DUKE OF DEVONSHIRE

We record with deep regret the death on November 26, 1950, of His Grace The Duke of Devonshire, K.G., who had been a member of the Society since 1928. This is not, of course, the place to pay tribute to the outstanding contributions to our national life made by the Duke in his many public activities. His interest in animals and in horticulture is well known—he was President of the Zoological Society and a member of the Council of the Royal Horticultural Society—but it was perhaps less widely appreciated that he had a good knowledge and deep love of British wild flowers, as all who had the privilege of botanizing with him can testify. He knew well the flora in the neighbourhood of Chatsworth and of Bolton Abbey, and the discovery, in 1949, of a large patch of *Ledum groenlandicum* on one of his moors in Derbyshire acted as a great stimulus to his interest in wild plants. Those who accompanied him on the long and rough climb up to the remote locality where it grows will not easily forget the enthusiasm and excitement that he communicated to his companions. Had he lived, he could, I think, have been persuaded to play as important a rôle in the small world of British Botany as he had done in his larger spheres of activity. The Society joins the many other bodies that he helped and encouraged in mourning his early death.

J. S. L. G.

GERTRUDE FOGGITT NÉE BACON (1874-1949)

Gertrude Bacon was born on the 19th April 1874. She was the daughter of the late Rev. J. M. Bacon, Cold Ash, Newbury, who was a scientific aeronaut, and whom she assisted in his work. She accompanied him on Eclipse Expeditions to Lapland, India and America. She was herself a pioneer, being the first woman to make a "right away" voyage in an airship. She wrote a number of books on flying and described her recreation as "hunting wildflowers." She was educated at home.

In 1929 she married County Alderman T. J. Foggitt of Thirsk, himself a distinguished botanist (see *B.E.C. Rep.* 1934, 808-810). She was made a Justice of the Peace.

In 1939, five years after Mr. Foggitt's death in 1934, she went to reside with her brother, Frederick Bacon, Professor of Engineering at University College, Swansea, and after his death moved to Sway, Hants. She died there very suddenly on December 22, 1949, and was buried at Hordle. Mr. N. Douglas Simpson, an old friend and childhood neighbour of Mr. Foggitt's, kindly represented this Society at the funeral.

I can see her now, darting here, there and everywhere, clad in a charming gown and hat of deep brown silk at the memorable party held to celebrate Dr. Druce's 80th birthday. That was a great day in her life, for she shouldered the organisation of the party, the first of its kind, and the forerunner of the present B.S.B.I. Exhibition Meetings.

I had corresponded with her for years before then, in my early days in the Wild Flower Society, of which I became a member after my schooldays were over. Her letters were always a delight. I am no hoarder of correspondence, and keep only letters of exceptional interest—I have never destroyed one of hers. The encouragement she gave to young botanists was of inestimable value. She had a gift for picking out our difficulties, helping us over them and *never* forgetting the word of praise when we overcame them.

Her marriage to T. J. Foggitt meant so much to her, for it not only gave her a happy married life and a companion with the same interests as hers, but afforded her greater opportunity of helping others—the hospitality of Stoneybrough was given to many, and what a joy and education it was! The Herbarium, the Library, the garden with its rock bank filled, not so much with spectacular alpine, but with interesting plants—many were difficult *Hieracia*—and the almost daily journeys near and far. She was a remarkably modest woman. Even coming to know her as well as I did, it was not from herself that I learned of her achievements and accomplishments—about her flying from her book and—very casually when being taken to a spot near Sutton Bank—of her impending flight in a glider “to keep in touch with modern methods”—her reviewing of books by noticing an inscription on a fly-leaf—and so on.

She was so cheerful too, and there was always a merry twinkle or a twist of humour round every corner, and how she encouraged it in everybody else. Her speaking voice, as befitted an experienced lecturer, was as clear and intelligible as her handwriting, and her gift of expression remarkable.

She was, of course, an experienced and careful botanist, and had seen almost every British plant *in situ*. With Lady Davy she found and added *Carex microglochin* to the British Flora in 1923. She rendered great service to this Society. She became a member in 1920, was one of the original Advisory Committee, and served on the General Committee from 1932 to 1948, and had been nominated an Honorary Member for election last March.

Though recently we had seen little of her, she managed to appear at our functions from time to time and it was a great pleasure having her with us at our first Conference.

I personally shall never forget her kindness—it was through her I penetrated behind the locked doors at the Natural History Museum in 1933 and at her suggestion that Mr. Wilmott set me to work on *Salicornia*—and hundreds of others will also remember her with gratitude and affection.

Gertrude Foggitt laid the foundations of many of the Society's activities and while it mourns the loss of one of its most valued members, the B.S.B.I. can rejoice that her inspiration lives on.

M. S. CAMPBELL.

My first meeting with Mrs. Foggitt was through the Wild Flower Society, when she was Miss Bacon, and it was not until after she married and came to live at Thirsk that our real friendship began. Stoneybrough was always a meeting place for botanists; after her coming it became even more so. Throughout the summer months hardly a week passed without some of the B.E.C. members visiting, and many trips to Teesdale and other well-known localities began and ended at Thirsk.

Mrs. Foggitt was a born organiser, and botanical excursions were one of her favourite activities; in 1934 she ran the first of the B.E.C. ones: these proved so popular and so successful that they still continue. In 1935 one such excursion included a visit to Thirsk, where members enjoyed the wonderful collection of plants which flourish in the Stoneybrough garden.

She was intensely interested in all forms of flying, and took a shy pride in being the first woman passenger in both aeroplane and airship; her unselfishness in allowing another to have one of the first glider flights was typical. Her pioneering included driving one of the first motor cars and riding one of the first bicycles. During the 1914-18 War she worked with the Red Cross.

After her marriage she took an active part in the life of Thirsk. Her work as a J.P. was very dear to her heart, but her Botany was the biggest interest. In addition to helping her husband complete the T. J. Foggitt collection of British plants, now in the British Museum, she worked for the B.E.C. in many ways, and after Mr Foggitt's death started on the Gertrude Foggitt Herbarium, which she presented to the Tolson Museum at Huddersfield. The greater part of this collection was made before she left Thirsk, and Gertrude covered many miles to make it as complete as possible.

Mrs. Foggitt had a wonderful gift of encouragement; many of the timid members of the Wild Flower Society never would have dared to join the B.E.C. but for her; the numbers who have done so speak for her powers. She was always so ready to help others, often taking a back seat to allow the younger ones to come to the fore. We who have benefited by her kindness and unselfishness know she was one who stood alone.

C. M. ROB.

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).

THE LONDON NATURAL HISTORY SOCIETY

We have received a list of the Field Meetings of this Society for 1951. Members wishing to attend as guests should apply to Mr. H. A. Toombs, the General Secretary, British Museum (Nat. Hist.).

Ecological work continues at Bookham Common, at the Bombed Sites and on May 20th at Norbury Park, to compare Woodland Vegetation on Chalk and Clay. The following meetings are arranged:—May 26th, Ickenham Green; 30th, Hampstead Heath; June 2nd, Bookham Common; 13th, Hampton Court; 17th, Plant hunting on Chalk, Gault and Greensand, and June 27th, Abbey Wood.

BIRMINGHAM NATURAL HISTORY AND PHILOSOPHICAL SOCIETY.

This 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.

THE ESSEX FIELD CLUB

This Club is at present engaged in collating plant records from its herbaria, from field meeting notes and from members' observations with a view to preparing a new flora of Essex. There is no up to date publication giving the position of the flora of the County.

Anyone living in Essex, or likely to botanize in the county, who is willing to supply records, is asked to communicate with the Secretary:—Mr. B. T. Ward, 24 Long Deacon Road, Chingford, who will supply details of the information required with each record.

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, 10 Exhibition Road, South Kensington, London, S.W.7.

CHELTHENHAM AND DISTRICT NATURALISTS' SOCIETY

This society, one of the youngest in the country, has the advantage of having been formed about the time of the publication of Gloucestershire's first *Flora*, and so has a good basis for activity. The botanical section is at present concerned firstly with trying to fill in the gaps in the distribution of fairly common species, and also with the critical groups and varieties. Research is also going on in the groups such as *Aphanes* and *Veronica* section *Beccabunga*, whose records in the *Flora* are more or less useless in the light of recent developments. Field general meetings (to which members of the B.S.B.I. visiting the area are very welcome) are held every Wednesday evening in the summer and once a month on Saturday afternoons.

Sectional meetings are also interspersed with these. The Hon. Secretary, Mr. L. W. Hayward, Jasmine Cottage, High Street, Prestbury, Cheltenham, will supply full details to anyone anticipating a visit to the area.

SOUTH ESSEX NATURAL HISTORY SOCIETY

The following Botanical Field Meetings have been arranged:—May 14—Paglesham. Maritime flora. June 2—Rochford to Rayleigh. General. June 17—Reigate area (in conjunction with the London Natural History Society). July 15—Grays area. Chalk flora. August 6—Shipwright's Wood, Benfleet. General. August 19—North Kent area (to be arranged). September 8—Nature Reserve, Belfairs, Leigh-on-Sea, for fungi. Further information can be obtained from Mr. S. T. Jernyn, 98 Western Road, Leigh-on-Sea. Visitors will be welcomed.

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 about ten lectures given on 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.

REPORT ON THE INTERNATIONAL BOTANICAL CONGRESS,
STOCKHOLM, JULY 1950

The Seventh International Botanical Congress was held in Stockholm from July 12th to the 20th, 1950, and was attended by more than 1400 botanists from most parts of the world. It was preceded and followed by a rich and varied programme of excursions in Sweden which had been planned many months before; during the Congress itself, other General Excursions were held, notably to the islands of the Stockholm Archipelago. To attend such a gathering is a rather bewildering and, at times, frustrating experience, for the most obvious value is in personal meetings and in interchange of ideas, for the facilitation of which, however, the very full programme of lecture meetings was obviously not designed! (One had the impression, indeed, that the purpose of the Sectional meetings might have been better fulfilled by having a greater proportion of less formal discussions on previously selected themes introduced by specialists; though the difficulties of organisation of such a programme might well have been too great.)

The Section for Nomenclature, faced with the necessity of considering a host of suggested amendments to the International Rules, began its meetings some days before the Congress officially opened, and made a vain attempt to finish these deliberations before the main programme. In these sessions, where clashes between opposing views were inevitable, it was interesting, if at the same time rather disappointing, to find that botanists are no more gifted than statesmen in reaching agreed solutions of problems involving outstanding differences of opinion. The British participants were particularly interested in a number of proposals, of which the following were hotly debated and may be of most general interest to members:—

1. The question of *nomina specifica conservanda* (or *rejicienda*, or *excludenda*); all suggestions for the adoption of such (including a seemingly mild compromise measure) were rejected, but, at the last moment, a Committee was set up to report on the question at the next Congress. One felt here that the session would have benefited from the presence and comments of a larger number of 'practical' botanists, involved in the day-to-day use of common plant names!

2. The retention of compulsory Latin diagnoses for the publication of new taxa; upheld against some pressure, chiefly from algologists.

3. A new rule concerning the nomenclature of subspecies and varieties was adopted, which required that any subdivision of a species which includes the type must be designated by a repetition of the specific epithet without citation of an authority.

The most important constructive step arising out of the Nomenclature and Taxonomy meetings was the establishment of the International Association for Plant Taxonomy, with its office at Utrecht; this new body should do much to further international taxonomic and nomenclatural co-operation, and help in solving points of dispute, e.g. in interpreting the International Rules.

To return to the main Congress sessions. These were opened by an impressive speech, in faultless English, by the Crown Prince (now King) of Sweden. The majority of papers were then read at one of the meetings of the 16 separate Sections catering for every branch of Botany, from the modern palynology and cytogenetics to the more traditional morphology and systematics. Probably the best attended lectures were those given by members of the Russian delegation of eight, which arrived somewhat unexpectedly and late; and, in particular by the four geneticists, who gave papers at a special evening session. The strongest impression of these which remains, is of the great gulf between the Russian concept of what constitutes a scientific experiment, and proof or disproof of a scientific hypothesis, and that held by the company as a whole.

The Congress received enormous publicity in the national and local Swedish press; most national (i.e. Stockholm) papers carried an editorial welcome on the first day (in one paper in both Swedish and English) and a front-page article on the proceedings every day throughout the sessions. The local papers seized with avidity upon reports of the field excursions, their articles abounding in fascinating mis-spellings of the outlandish names of distinguished participants, and illustrated by photographs said to show botanists studying Swedish vegetation. This phenomenon, so striking to an Englishman, is only partly to be explained in terms of plentiful newsprint and relatively little news competition; it undoubtedly in part reflects the widespread appreciation of field natural history among the people in this country of the Linnean tradition.

What were the concrete achievements of the Congress? I have already indicated those concerning taxonomy and nomenclature, with which our Society is perhaps most concerned. Less concretely, but of great value, however, was the demonstration that our science is and must remain international, and has not yet fragmented irretrievably into specialisms; a demonstration brought home most vividly to the individual participant in conversations with fellow-botanists from other lands, and particularly in enjoyment and study together of what was to most a new and hitherto unexplored vegetation. On the excursions botanists from other lands were soon aware of the active continuing field tradition for which Linnaeus laid such a sure foundation; and many must have envied the Scandinavians their knowledge of the distribution of their native flora by virtue of which Professor Hultén's magnificent *Atlas of the Distribution of Vascular Plants in N.W. Europe* has been produced.

S. M. WALTERS.

INTERNATIONAL ASSOCIATION FOR PLANT TAXONOMY

This Association was formed as a result of a meeting during the Seventh International Botanical Congress at Stockholm last summer. Its aims are stated to be:—"To consider measures for the future de-

velopment of Plant Taxonomy and Plant Geography, and to organise the execution of such plans as require international co-operation".

Publications which it is hoped will be issued are:—

Taxon, the official news bulletin, which it is hoped may become a monthly issue, and will contain news of interest to Taxonomists.

Forum Phytotaxonomicum. A scientific journal which will appear at irregular intervals.

Regnum Vegetabile. A series of handbooks for the use of Taxonomists and Plant Geographers.

Membership. For individuals: *Regular Members*, \$3 per annum, for which they receive *Taxon* free and other publications at reduced cost. *Associate Members*, \$1 per annum, *Taxon* free. For Societies: *Regular Members*, \$25 per annum. *Associate Members*, \$10 per annum. Both with same rights as for individuals. Arrangements are being made for payments to be made in this country.

Applicants for membership or for further particulars should write to:—The Secretary, International Association for Plant Taxonomy (or I.A.P.T.), Prof. J. Lanjouw, Lange Nieuwstraat 106, Utrecht, Netherlands.

THE COUPE BOTANIQUE DES ALPES

Abbreviated from a Report made by Miss M. S. CAMPBELL to the Council of the Society.

In August 1950 I attended, as the Society's official representative, the Coupe Botanique des Alpes, the 78th Session Extraordinaire of the Société Botanique de France.

This remarkable excursion, which may be described as an appendix to the International Congress at Stockholm, was organised with the co-operation of the Société Botanique Suisse and Austrian botanists. Its object was to review the principal biological and biogeographical problems raised by the Flora of the Alps and the solutions arrived at by the leading specialists on the subject. We were able to follow, without being encumbered with too much detail, the transformation of the alpine Flora from east to west and the ecological contrasts produced by different rock formations and exposures, and were given a fine impression of the vegetation of the great massif around which is grouped the European Flora.

An admirable guide for the excursion was issued to all participants, the quality of which is best summed up by a list of the contributors, all of whom were with us in the field:—Prof. H. Gams (Innsbruck), Dr. E. Schmid (Zürich), Dr. W. Lüdi (Zürich), Dr. W. Rytz (Berne), O. Hirschmann (Saas Fee), Prof. F. Chodat (Geneva), Dr. P. Guinier (Paris), Dr. R. de Vilmorin, C. Guinet, Prof. Humbert (Paris), Dr. Becherer (Geneva) and Prof. Braun-Blanquet (Montpellier). Among the official representatives were:—Dr. Rousseau and Prof. Prât from

Canada, Prof. Brown from U.S.A. (Louisiana), Dr. Zohary, Dr. Naomi Feinbrun, Prof. Rays and others from Jerusalem, Prof. and Mme. Heilbron from Turkey and Prof. Géral from Morocco.

The party totalled some 140, of which a bare half-dozen were non-botanists, and approximately half of us camped at night to save expenses. Almost everywhere the roads were crowded with traffic, and no praise is too great for the superb driving of our chauffeurs.

The excursion started from Grenoble at 8.30 a.m. on Sunday, August 6th, and by midnight we had entered and travelled from one end of Switzerland to the other (Weesen), picking up members along the route. Next evening we entered Austria by Col d'Arlberg, and reached Innsbruck, capital of the Tyrol.

On August 8th the opening Session was held in the University; we were welcomed by the local authorities as well as by the Director, and I was appointed an Honorary Vice-President of the Société for the duration of the excursion.

At Innsbruck we divided into groups, and I went over the Brenner Pass with the Dolomites party. From the Dolomites we went via Bolzano to Santa Maria, where the groups were reunited for the day in the Swiss National Park in the Engadine; then to St Moritz for two nights, and after that *via* Sils Maria, Maloja Pass and the Val Bregaglia into Italy again, Como (Dongo), Menaggio, and back into Switzerland at Gandria, and, finally, to Agno near Lugano for that night; on August 15th to Interlaken for two nights *via* the Valle Lepontina, St Gotthard and Susten Passes; on August 17th *via* the Grimsel Pass, the summit floral carpet being strangely reminiscent of many Scottish highland hilltops, to the Rhône Glacier and to Brigue in the Valais for two nights. We had here reached the principal meeting place of the diverse alpine floras. On August 19th my group reached Geneva *via* Lower Valais, where there was an informal reception at the University. Next day we returned to France *via* Annecy, Haute Tarentaise, Col de l'Iseran into the Haute Maurienne at Bonneval-sur-Arc for two nights.

At Briançon, on August 22nd, there was a formal reception by the Mayor in the ancient Hotel de Ville, and on the next day the party travelled to Gap for two nights; on the 25th back to Grenoble for a welcome by the Mayor and the closing Session with representatives of both the town and University of Grenoble. There were Summaries of problems, theories and solutions, followed by admirable speeches of thanks, and an informal banquet of local specialities, at which we were joined by the Director of the University.

In this Report of the Coupe, I have said nothing about the botanical results, as these will eventually be available elsewhere, but, looking back, the exceptionally happy combination of formality and informality on an excursion of this magnitude and importance is deserving of special mention.

The links with our own upland and alpine Flora were almost daily visible, and it is to be regretted that the opportunity of field work for three glorious weeks with local experts should not have been seized by more British botanists.

During the Coupe, I was constantly asked for information in matters pertaining to British Botany, and there seems no doubt that it gave very real pleasure to the French Society to have a B.S.B.I. representative on the Excursion.

M. S. CAMPBELL

DISTRIBUTOR'S REPORT FOR 1950

By E. S. EDEES

The exchange section of the Society is still alive and must be kept alive as long as there is any hope of increasing its strength. To botanists who live far away from the national collections it is invaluable to receive specimens of newly discovered or critical plants that are in the news. In the present distribution Mr. Rilstone's sheets of Cornish *Rubi* admirably illustrate six of the species described in his paper "Some Cornish *Rubi*" in *Journ. Linn. Soc. (Bot.)*, **53**, 413-21, 1950.

Our thanks are due to Drs. G. Taylor and E. F. Warburg and to Messrs. J. P. M. Brenan, J. E. Dandy, C. E. Hubbard, R. D. Meikle, E. Nemes, N. Y. Sandwith, H. K. Airy Shaw and S. M. Walters for their help in examining critical species.

May 1951.

LIST OF PARCELS RECEIVED

	Gatherings	Sheets.	Duplicates.
Carlisle Museum	12	84	
U. K. Duncan	2	23	
E. S. Edees	1	8	50
A. E. Ellis			74
J. E. Lousley	1	22	
F. Rilstone	10	114	
E. L. Swann	16	139	
E. C. Wallace	1	7	21
D. P. Young	4	47	
	<hr/> 47	<hr/> 444	<hr/> 145

Fumaria officinalis L. 70, Cumberland; garden weed on sandy soil, Brampton, 9th June 1950.—Miss C. W. MUIRHEAD, comm. CARLISLE MUSEUM (Ref. No. 50.116). "Yes."—N. Y. SANDWITH.

Nasturtium microphyllum Boenn. ex Rehb. \times *officinale* R.Br. 1, West Cornwall; in stream, Lambourne, Perranzabuloe, 26th June 1950.—F. RILSTONE. "Characteristic material of the hybrid."—H. K. AIRY SHAW.

Nasturtium microphyllum Boenn. ex Rehb. \times *officinale* R.Br. 1, West Cornwall; old water wheel pit, Lambriggan, Perranzabuloe, 24th June 1950.—F. RILSTONE. "Characteristic material of the hybrid."—H. K. AIRY SHAW.

Viola odorata L. var. *sulfurea* (Car.) R. & F. 17, Surrey; clearing in woods, on chalk, Great Burgh, Epsom Downs, 4th April 1950. Flowers ivory shading to creamy yellow in centre, quite scentless. Beard absent, therefore also comes under var. *imberbis* Hensl.—D. P. YOUNG (Ref. No. 3414). "Correctly named. The degree of development of the beard on the lateral petals varies in this gathering, even as between flowers attached to the same plant; but some beard is apparent on all but two of the flowers which are pressed so as to show the relevant part, so that 'beard absent' is not correct. Rouy & Foucaud (*Flore de France*, 3, 26) state their plant is beardless; Gregory (*British Violets*, 6) says 'slightly bearded' which fits this material very well."—S. M. WALTERS.

Sagina maritima Sm. 70, Cumberland; sandhills on Grune Point, Skinburness, Silloth, 4th June 1950.—Miss C. W. MUIRHEAD, comm. CARLISLE MUSEUM (Ref. No. 50.117).

Malva rotundifolia L. ("*M. parviflora* L."). 13, Sussex; around farm buildings, West Dean, 6th August 1949.—D. P. YOUNG (Ref. No. 3345). "Dr. Young's plants have hairy claws to the petals and are therefore *M. rotundifolia* L. (*M. pusilla* With., *M. borealis* Wallm.). See an abstract of a paper in *Rhodora* by Morton on this group of species in 1937, *Journ. Bot.*, 75, 235. My colleague Mr. R. A. Blakelock agrees with this naming."—J. P. M. BRENNAN. "Of the two pieces received one was a complete plant and the other a portion of a larger stem. They appear to be *M. rotundifolia* L. (*M. pusilla* Sm.). The claw of the petals is bearded and the bractlets of the epicalyx equal or exceed the flowering calyx. In *M. parviflora* L., a rare alien, the claw is glabrous and the bractlets fall considerably short of the calyx. The calyx too is entire, but in *M. rotundifolia* it is more or less toothed."—E. L. SWANN.

Malva parviflora L. 28, West Norfolk; carrot field with other aliens, village farm, Houghton, 7th October 1950.—E. L. SWANN (Ref. No. 2163). "Correctly named. Note the glabrous claws to the petals. My colleague Mr. R. A. Blakelock agrees with this verdict."—J. P. M. BRENNAN.

Lotus uliginosus Schkuhr. 1, West Cornwall; from dry pasture at 300 ft. alt., Lambourne Hill, Perranzabuloe, 12th August 1947.—F. RILSTONE.

Vicia dasycarpa Ten. 17, Surrey; field of oats, frequent but confined to outer edge with *V. sativa* and a little *V. pannonica* Cr., Chelsham, 9th August 1950.—D. P. YOUNG (Ref. No. 3772). "Correctly named."—J. P. M. BRENNAN.

Rubus carmkiefensis Rilst. 1, West Cornwall; roadside thicket, Fair View, Lambourne, Perranzabuloe, 5th August 1950.—F. RILSTONE.

Rubus Daveyi Rilst. 1, West Cornwall; field border, Lambourne, Perranzabuloe, 29th July-10th August 1950.—F. RILSTONE.

Rubus Newbouldianus Rilst. 1, West Cornwall; field borders, Lambourne, Perranzabuloe, 29th July-10th August.—F. RILSTONE.

Rubus penhallowensis Rilst. 1, West Cornwall; field border, near Penhallow, Perranzabuloe, 12th August 1950.—F. RILSTONE.

Rubus Riddelsdellii Rilst. 1, West Cornwall; growing in good soil in semi-shade, Lambourne Hill, Perranzabuloe, 24th July 1950.—F. RILSTONE.

Rubus Riddelsdellii Rilst. 1, West Cornwall; field border, Lambourne, Perranzabuloe, 16th August 1950.—F. RILSTONE.

Rubus Tresidderi Rilst. 1, West Cornwall; field border, Lambourne, Perranzabuloe, 5th August 1950.—F. RILSTONE.

Aphanes microcarpa (B. & R.) Rothm. 28, West Norfolk; dry heath overlying the Lower Greensand, Roydon Common, Kings Lynn, 10th May 1950. Plant associates: *Aira praecox*, *Cerastium semidecandrum*, *Draba verna*, *Erodium cicutarium*, *Filago minima*, *Rumex Acetosella*.—E. L. SWANN (Ref. No. 2116). "Correct."—S. M. WALTERS.

Sorbus intermedia (Ehrh.) Pers. 90, Angus; Inchdowrie, Glen Clova, 18th July 1950.—Miss U. K. DUNCAN. "*S. Aria* \times *Aucuparia* = \times *S. semipinnata* (Roth.) Hedl., presumably planted."—E. F. WARBURG.

Crataegus oxyacanthoides Thuill. 70, Cumberland; roadside tree above Inch, near Riddings station, 22nd May 1950.—Miss C. W. MUIRHEAD, comm. CARLISLE MUSEUM (Ref. No. 50.07). "Probably *C. monogyna* \times *oxyacanthoides*, though much nearer the latter."—E. F. WARBURG.

Chrysosplenium alternifolium L. 39, Staffordshire; Dydon Wood, Stanton, 1st April 1950.—E. S. EDEES.

Limonium binervosum (G. E. Sm.) C. E. Salmon. 70, Cumberland; sandstone cliffs, Fleswick Bay, St. Bees Head, 28th July 1950.—Miss C. W. MUIRHEAD, comm. CARLISLE MUSEUM (Ref. No. 50.143).

Euphrasia nemorosa (Pers.) Löhr var. *calcareae* Pugs. 28, West Norfolk; railway embankment on chalk, by road from Narborough to Marham, 22nd July 1950.—E. L. SWANN (Ref. No. 2131). "*E. nemorosa* (Pers.) H. Mart. emend. Löhr, but not, I believe, the plant to which Pugsley's description of var. *calcareae* best applies. The plant distributed is a common form on chalk and limestone and has sometimes been called var. *calcareae* Pugs. and sometimes var. *collina* Pugs., but I doubt whether either name is really applicable to it. I cannot give it a varietal name at present."—E. F. WARBURG.

Euphrasia scotica Wettst. ("*E. micrantha* Rehb."). 70, Cumberland; gill near the Watendlath track, above Rosthwaite, Borrowdale, 22nd July 1950.—Miss C. W. MUIRHEAD (Ref. No. 50.138 B). Det. E. F. WARBURG.

Euphrasia montana Jord. 70, Cumberland; meadow below Watendlath Tarn, Borrowdale, 22nd July 1950.—Miss C. W. MUIRHEAD, comm. CARLISLE MUSEUM (Ref. No. 50.135). "Correct."—E. F. WARBURG.

Mentha longifolia (L.) Huds. var. *horridula* Briquet. 28, West Norfolk; semi-heathland on greensand, by Leziate golf course, 1st August 1950.—E. L. SWANN (Ref. No. 2132).

Mentha piperita L. var. *officinalis* Sole lusus *pilosus* Still. 28, West Norfolk; hedgerow by dykeside, Marsh Lane, Dersingham, 31st August 1950. Confirmed by R. Graham.—E. L. SWANN (Ref. No. 2165).

Mentha piperita L. var. *subcordata* Fraser. 28, West Norfolk; dyke on Roydon Common behind Grimston Road station, 29th August 1950. Det. R. Graham.—E. L. SWANN (Ref. No. 2144).

Mentha piperita L. var. *vulgaris* Sole. 28, West Norfolk; dykeside, Roydon Common, east of the level crossing, 29th August 1950. Confirmed by R. Graham.—E. L. SWANN (Ref. No. 2166).

Euphorbia virgata W. & K. 17, Surrey; railway embankment, Sanderstead, 28th May 1950 (Ref. No. 3468) and 25th June 1950 (Ref. No. 3642).—D. P. YOUNG. "This is certainly *Euphorbia virgata* auct. angl. There seems something to be said for Croizat's view that the plant commonly called *virgata* does not square well with the original picture of *E. virgata* in Waldstein and Kitaibel's *Desc. Ic. Pl. Rar. Hung.*, 2, 176, t. 162 (1805). Those who accept Croizat's conclusions must call our plant *E. Podperae* Croiz. (*E. intercedens* Podp., non Pax): see his paper in 1945, *Amer. Midl. Nat.*, 33, 231-243, and 1947, *op. cit.*, 37, 801-2."—J. P. M. BRENNAN.

Urtica pilulifera L. 28, West Norfolk; grown from descendants of the original plant found by the late C. B. Plowright on King's Lynn docks, 11th June 1950.—E. L. SWANN (Ref. No. 2167).

Salix pentandra L. 70, Cumberland; Southerfield Moss, Abbey Town, 13th August 1950.—Miss C. W. MUIRHEAD, comm. CARLISLE MUSEUM (Ref. No. 50.11 A). "Correct."—R. D. MEIKLE.

Salix pentandra L. ("*S. fragilis* L. \times *pentandra* L."). 70, Cumberland; marsh beside disused railway from Abbey Town to Bromfield, 29th May and 13th August 1950.—Miss C. W. MUIRHEAD, comm. CARLISLE MUSEUM (Ref. No. 50.09). "A rather narrow-leaved form of *S. pentandra* L. ♂, not the hybrid *S. \times* *Meyeriana* Rostk."—R. D. MEIKLE.

Salix triandra L. var. *Hoffmanniana* (Smith). 28, West Norfolk; damp wood on fen peat, Cranberry Wood, East Winch, 17th April and 11th September 1950.—E. L. SWANN (Ref. No. 1746). "Correct, I think, but I am not at all well acquainted with the vars. of *S. triandra* L."—R. D. MEIKLE.

\times *Salix rubra* Huds. 28, West Norfolk; in disused willow-carr, Gate House, Bawsey, 25th March and 13th September 1950.—E. L. SWANN (Ref. No. 1968). "Correct."—R. D. MEIKLE.

\times *Salix rubra* Huds. var. *genuina* Syme. 28, West Norfolk; in disused willow-carr, the Gate House, Bawsey, 25th March and 13th September 1950.—E. L. SWANN (Ref. No. 1970). "Correct."—R. D. MEIKLE.

\times *Salix calodendron* Wimm. (*S. acuminata* Sm.). 28, West Norfolk; streamside in reed-bed on the Lower Greensand, Coalyard Creek, Wolferton, 16th April and 9th September 1950.—E. L. SWANN (Ref. No. 1981). "I agree."—R. D. MEIKLE.

\times *Salix calodendron* Wimm. (*S. acuminata* Sm.). 28, West Norfolk; in cottage garden, Holme-next-the-Sea, 18th March and 24th September 1950.—E. L. SWANN (Ref. No. 1982). "I agree."—R. D. MEIKLE.

Salix caprea L. \times *viminalis* L. 28, West Norfolk; a hedgerow tree on sandy soil, Roydon Road, Roydon Common, 27th April and 12th September 1950.—E. L. SWANN (Ref. No. 2090). "I agree."—R. D. MEIKLE.

Salix caprea L. \times *viminalis* L. ("*S. atrocinnerea* Brot. \times *viminalis* L."). 28, West Norfolk; field margin on thin fen peat, Gate House, Bawsey, 25th March and 13th September 1950.—E. L. SWANN (Ref. No. 2096). "I consider this *Salix caprea* L. \times *viminalis* L. The undersides of the leaves have the indumentum and venation of this hybrid."—R. D. MEIKLE.

Ceratophyllum submersum L. 70, Cumberland; Monkhill Lough, near Carlisle, 2nd June 1950.—Miss E. WARD and Miss C. W. MUIRHEAD, comm. CARLISLE MUSEUM. Det. J. E. DANDY and G. TAYLOR.

Potamogeton filiformis Pers. 90, Angus; Balgavies Loch, near Forfar, 10th July 1950.—Miss U. K. DUNCAN. "Correct."—J. E. DANDY and G. TAYLOR.

Carex vulpinoidea Michx. 17, Surrey; damp hollow, Tadworth, 1st and 16th July 1950. The plant was discovered here by C. T. Prime who sent specimens to me for identification at the end of June 1950. There were about twenty large clumps, each of some 200 culms, and at the time of my first visit the hollow was dry and the culms erect with bright green spikes. On July 16th the spikes were turning yellow and the clumps sprawling and standing in about a foot of water. No other aliens were observed in the vicinity and judging from the size of the plants it seems likely that it had been established in this closed community for a considerable time. It is difficult to suggest a likely source of introduction of a North American sedge to this habitat, but U.S.A. forces were in the district during the war and may have brought the fruits with their stores or vehicles. For a note on previous occurrences in Britain see Lousley, *B.E.C. 1937 Rep.*, 459, 1938.—J. E. LOUSLEY. "Yes, good complete specimens of *Carex vulpinoidea* Michx., a North American sedge which Mr. Lousley found near Farnborough, W. Kent, in 1937. It was first found in Britain in 1880 on the banks of the Thames at Kew."—E. NELMES.

Carex Hostiana DC. \times *tumidicarpa* Anderss. 28, West Norfolk; margin of peaty bog, East Winch Common, 5th August 1950.—E. L. SWANN (Ref. No. 2133). "Yes, *Carex demissa* Hornem. \times *C. Hostiana* DC. The plants often occur near each other and frequently hybridize."—E. NELMES.

Carex extensa Good. 70, Cumberland; salt marsh turf between Ravenglass and Eskmeals, 9th July 1950.—Miss C. W. MUIRHEAD, comm. CARLISLE MUSEUM (Ref. No. 50.133). "Typical examples."—E. NELMES.

Gastridium ventricosum (Gouan) Schinz & Thellung. 18, South Essex; grassy slopes west of Hadleigh Castle, 24th June 1950.—E. C. WALLACE (Ref. No. 6650). Confirmed by C. E. HUBBARD.

Catabrosa aquatica (L.) Beauv. 70, Cumberland; growing in a sough on Southerfield Moss, Abbey Town, July 1950.—Miss C. W. MUIRHEAD, comm. CARLISLE MUSEUM. Confirmed by C. E. HUBBARD.

Brachypodium sylvaticum (Huds.) Beauv. 70, Cumberland; sandstone cliffs, Fleswick Bay, St. Bees Head, 28th July 1950.—Miss C. W. MUIRHEAD, comm. CARLISLE MUSEUM (Ref. No. 50.144). Confirmed by C. E. HUBBARD.

RULES

(AS PASSED AT A SPECIAL GENERAL MEETING HELD ON
OCTOBER 25th, 1947, AND AMENDED AT THE ANNUAL
GENERAL MEETINGS HELD ON APRIL 1st, 1949, AND
APRIL 14th, 1951)

1. NAME

The name of the Society shall be the Botanical Society of the British Isles.

2. OBJECTS

The objects of the Society are:—

- i. To encourage the study of the Flowering Plants, Vascular Cryptogams and Charophyta of the British Isles; to promote the investigation of their detailed distribution; and to issue such periodical and other publications as the interests of the Society require.
- ii. To facilitate intercourse among British botanists for the exchange of information and ideas, and also of dried material of critical species.
- iii. To aid in the maintenance of adequate representative collections of British plants in the national and other public herbaria.
- iv. To promote in every way possible the conservation of the British flora.
- v. To organise botanical excursions, conferences, lectures, exhibitions, and other meetings.

3. MANAGEMENT OF THE SOCIETY

- (a) The Officers of the Society shall consist of a President, not more than four Vice-Presidents, Honorary General Secretary, Honorary Treasurer, Honorary Field Secretary, and Honorary Editor or Joint Editors.
- (b) The management of the affairs and property of the Society shall be in the hands of a Council, to which the Officers shall be responsible, and which shall have power to appoint Committees for specific purposes.
- (c) The Council shall consist of the Officers and sixteen elected members.
- (d) The President and Vice-Presidents shall be elected to serve for a term of two years and shall not be eligible to serve for a period of more than four consecutive years in each office; the other Officers shall be re-elected annually and shall be eligible for re-election each year. Nominations for Officers shall be made by the Council for election at the Annual General Meeting.

- (e) The elected members of the Council shall be elected at the Annual General Meeting; four of the elected members shall retire every year by rotation in order of seniority; the seniority of members to be determined by drawing lots at the time of their election. Retiring members shall not be eligible for re-election until the next Annual General Meeting.
- (f) All nominations for vacancies on the Council shall be in writing, signed by two members of the Society, shall be accompanied by the written consent of the candidate to serve if elected, and shall be sent to the Honorary General Secretary before February 1st in each year. In the event of an insufficient number of nominations being received by February 1st, to fill the vacancies, the Council shall have power to make the necessary nominations.
- (g) In cases of emergency the Council shall have power to make urgent temporary appointments at their own discretion.

4. MEMBERSHIP

- (a) **ORDINARY MEMBERSHIP** of the Society is open to all persons interested in botany who comply with Rule 4(d) and pay the current subscription, which shall entitle them to the privileges of membership until the 31st day of December of the current year. [But see also Rule 6(c).]
- (b) **JUNIOR MEMBERSHIP.** Persons under the age of 21 years may join the Society as Junior Members on payment of half the annual subscription payable by Ordinary Members. Payment of this sum shall entitle a Junior Member to the privileges of membership until the 31st day of December of the current year. A Junior Member will cease to be a Junior Member on the 31st day of December of the year in which he reaches the age of 21 years, and may then become an Ordinary Member without being again proposed and seconded.
- (c) **FAMILY MEMBERSHIP.** Members of the family of an Ordinary Member who do not wish to receive copies of the Society's periodical publications may, at the discretion of the Council, be elected members of the Society on payment of such reduced subscription as the Council shall from time to time decide; such members shall have all the other privileges of Ordinary Members. Enquiries concerning Family Membership should be addressed to the Honorary General Secretary.
- (d) **CANDIDATES FOR MEMBERSHIP** shall obtain from the Honorary General Secretary a copy of the Rules of the Society and sign a Form of Declaration of their willingness to support the objects of the Society and accept the responsibilities of membership. Candidates shall be proposed and seconded by members of the Society, and should indicate the nature of their botanical interests. [In case of difficulty in complying with this provision the Honorary General Secretary should be consulted.]

- (e) **HONORARY MEMBERSHIP.** Botanists, whether British or Foreign, who have rendered special service to the Society or its objects may, on the recommendation of the Council at a General Meeting, be elected Honorary Members, who shall enjoy all the privileges of membership. Nominees for Honorary Membership shall, before their names are submitted by the Council to a General Meeting, obtain the votes of not less than three-quarters of those present in Council. The numbers of Honorary Members shall not be added to when the sum total of such members exceeds eight per cent. of the total paying members of the Society as on the last day of the preceding year.

5. SUBSCRIBERS

Botanical or Natural History Societies, Libraries, Museums, Botanical Gardens, and similar Institutions, which are unable to conform with the conditions of Rule 4(d), shall be entitled to become Subscribers at the rate of subscription applicable to Ordinary Members. They shall be entitled to the privileges of ordinary membership except that they shall be entitled to send not more than one representative to any meeting of the Society, and only accredited representatives of Societies shall be entitled to vote. They shall consult the Panel only through their secretariat. They are expected to support the objects of the Society and to accept the responsibilities of Ordinary Membership as far as possible, and their acceptance and retention as Subscribers is subject to the absolute discretion of the Council.

6. ANNUAL SUBSCRIPTIONS

- (a) The annual subscription shall be one guinea for Ordinary Members.
- (b) Annual subscriptions are payable upon the first day of January in each year.
- (c) The annual subscription of members who join the Society on or after the first day of October shall cover the period ending on the thirty-first day of December of the following year.
- (d) Notice shall be given to every member of his subscription being due.
- (e) Any member whose subscription shall be in arrear for two years on the first day of January in any year shall cease to be a member.

7. LIFE MEMBERSHIP

Members who have already compounded for Life Membership shall continue to enjoy all the privileges of Ordinary Members. No further Life Members shall be accepted for the present.

8. PRIVILEGES OF MEMBERSHIP

Each member of the Society shall be entitled:—

- (a) To receive one copy of the Society's periodical publications as issued (except as provided under Rule 4 (c)).

- (b) To submit plants for naming to the Honorary General Secretary or to the specialists on the Panel (see Rule 19). Return postages shall be prepaid by the sender.
- (c) To consult the Officers, Local Secretaries, Recorders, and Panel upon botanical matters.
- (d) To submit papers and notes for publication by the Society.
- (e) To attend, and vote at, all meetings and, so far as accommodation and transport are available, to attend all field meetings of the Society.
- (f) To invite guests to attend field meetings and certain other meetings, subject to the discretion of the Council.
- (g) To contribute parcels of dried plants and participate in the annual Exchange Distribution, which shall be conducted in accordance with such regulations as the Council may from time to time direct. [Copies of the Regulations of the Exchange Distribution may be obtained free of charge from the Honorary General Secretary.]
- (h) If contributing and/or receiving specimens in connection with the Annual Exchange, to purchase two additional copies of the Distributor's Report at a discount of 25 per cent. off the published price, on giving notice to the Honorary General Secretary not later than the 28th of February of the winter of distribution.

9. RESIGNATION

Any member wishing to resign from his membership shall give written notice to the Honorary General Secretary or Honorary Treasurer before the first day of December in any year of his intention to resign, failing which he shall be liable for the payment of his subscription for the ensuing year.

10. EXPULSION FROM MEMBERSHIP

If it be proved at any time to the satisfaction of the Council that any member has acted in any way contrary to the objects or derogatory to the interests of the Society, the Council shall make a report on the matter to the next General Meeting; on a vote of not less than two-thirds of the members present at such meeting in favour of expulsion, the member concerned shall cease to be a member of the Society and shall forfeit all claim upon the Society: he may subsequently, however, be reinstated, but only by ballot of the members present at an Annual General Meeting.

11. HONORARY GENERAL SECRETARY

The Honorary General Secretary shall carry out all ordinary secretarial duties of the Society as directed by the Council. An Honorary Assistant Secretary may be appointed by the Council to assist the Honorary General Secretary in such ways as they may determine.

12. HONORARY TREASURER

The Honorary Treasurer shall keep the Society's accounts. An Honorary Assistant Treasurer may be appointed by the Council to assist the Honorary Treasurer in such ways as they may determine.

13. HONORARY FIELD SECRETARY

The Honorary Field Secretary shall organise the Society's field work in co-operation with the Field Work Committee, which shall be appointed by the Council.

14. HONORARY EDITORS

The Honorary Editor or Joint Editors shall edit the Society's publications in co-operation with the Publications Committee, which shall be appointed by the Council. The arrangements for Abstracts, Reviews, and disposal of publications received shall be made by the Honorary Editor or Joint Editors, with the advice of the Publications Committee, report being made thereon annually to the Council at their first meeting each year.

15. FINANCES OF THE SOCIETY

- (a) The Society's invested funds shall be held in the names of the Chairman and Honorary Treasurer for the time being. The Society's Banking Account shall be in the name of the Society and shall be operated by the Honorary Treasurer.
- (b) The Council shall have power to adopt such financial measures as may seem to them to be expedient in the interests of the Society.
- (c) A member of the Society, to be appointed by the Council, shall act as Honorary Auditor, and the annual accounts, having been audited by him, shall be approved by the Council before presentation to the Annual General Meeting.
- (d) The Officers of the Society and others to whom the Society is indebted may receive such Honoraria for their services as may, upon the recommendation of the Council, be voted at a General Meeting.

16. EXCHANGE DISTRIBUTOR

An Exchange Distributor shall be appointed annually by the Council to conduct the Society's Exchange Distribution. He shall conduct the annual distribution according to such regulations as may from time to time be determined by the Council. He shall make a report on the distribution to the Council, for publication by the Society.

17. LOCAL SECRETARIES

The Council are authorised to appoint Local Secretaries, especially to keep in touch with other members in their areas, to encourage local activities such as meetings and field meetings, to assist with Official Excursions of the Society arranged in their areas, to recruit new members, to supply information concerning their areas, and to carry out such other duties as the Council may determine.

18. RECORDERS

The Council shall, where desirable, appoint Recorders for specified areas, especially to assist the Honorary Editor or Joint Editors by collecting records in their areas and advising on the value of records submitted for publication; and also by forwarding information about important changes (actual or threatened) in the flora of their areas.

19. PANEL OF SPECIALISTS

The Council shall appoint a Panel consisting of members of the Society each of whom is prepared to deal with enquiries on specified groups of plants or on subjects connected with the objects of the Society. The Panel shall from time to time be reviewed by the Council, and any alterations shall be notified to Members.

20. CHAIRMANSHIP

At all General and Council meetings the Chair shall be taken by the President or, in his absence, by a Vice-President. In the absence of both, the Chair shall be taken by a member of Council elected at the meeting.

21. ANNUAL GENERAL MEETINGS

- (a) The Annual General Meeting shall be held in March or April in each year at such time and place as the Council shall direct.
- (b) A quorum shall consist of seven members.
- (c) Voting shall be conducted by show of hands, but, on the ruling of the Chairman, or on the demand of not fewer than five members present, voting shall be by ballot (and see Rule 10). All elections to the Council under Rule 3(e) shall be by ballot. All ballot papers must be tendered personally.

22. SPECIAL GENERAL MEETINGS

- (a) The Honorary General Secretary shall, by direction of the Council, or at the written request of not fewer than seven members, call a Special General Meeting for the consideration of any business or interest to the Society.
- (b) A quorum shall consist of seven members.
- (c) Voting shall be by show of hands, but on the ruling of the Chairman, or on the demand of five members present, voting shall be by ballot (and see Rule 10). All elections to the Council shall be by ballot. All ballot papers must be tendered personally.

23. MEETINGS OF THE COUNCIL

- (a) The Honorary General Secretary shall be authorised to call a meeting of the Council upon the written request of the President or of not fewer than three members of the Council. Each member shall receive not less than seven days' notice of a proposed meeting. The Honorary General Secretary in consultation with the President may, if necessary, call a meeting of the Council without notice immediately after the Annual General Meeting.

- (b) A quorum at a meeting of the Council shall consist of five members.
- (c) The Council may each year appoint from their own body with or without the addition of other members such Committees as they may determine and shall define all duties and powers of such Committees and the number of members to form a quòrum thereof, and may delegate any of their powers and duties to such Committees. The President, Honorary General Secretary, and Honorary Treasurer of the Society are *ex officio* members of all such Committees, but their attendance is optional unless they hold office in the Committee.
- (d) Any member of the Council or of a Committee who fails to attend three consecutive meetings shall cease to be a member thereof unless adequate reason for non-attendance is given. After non-attendance without adequate reason being given at two successive meetings the Secretary concerned shall inform that member that non-attendance at the next meeting may lead to his removal from the Council or Committee. Decision on such removal shall be made by the Council. Vacancies on the Council caused in this way or by death or resignation may, when urgently necessary, be filled by the Council in advance of a General Meeting. Temporary appointments to fill vacancies on Committees may, when urgently necessary before the next meeting of the Council, be made by the Officers in consultation with the Committee.

24. NOTICES OF MEETINGS AND EXCURSIONS

Notice of a General Meeting, and the agenda of such meeting, shall be sent to every member by post at least fourteen days before the date of the meeting. The programme of field meetings shall be sent to all members at latest on the first day of January each year.

25. CASTING VOTE OF CHAIRMAN

When there is an equality of votes at any Council or General Meeting, the Chairman shall have a second, or casting, vote.

26. ALTERATION OF RULES

No Rule shall be made or altered except at a General Meeting, and then only after twenty-eight days' notice has previously been given in writing to the Honorary General Secretary, who shall give fourteen days' notice to all members of the Society of the proposed addition or alteration to the Rules. Not less than two-thirds of the votes of those present must be in favour of change before any alteration of Rule is made.

27. PROCEEDINGS OF MEETINGS

The proceedings of all General Meetings, Field Meetings and Conferences shall be recorded in the Society's periodical publications.

PUBLICATIONS

To be obtained from Mr J. H. Burnett, Department of Botany, The University, Oxford. Prices revised January 1950. Postage extra.

B.E.C. REPORTS

The following are out of stock; prices up to 10/- each, when available:—1879, 1880, 1882, 1884-8, 1892, 1903-4, 1906, 1909, 1910, 1912, 1914 (2), 1916, 1923 (1), 1929 (2), 1930 (4), 1938 (2). Offers of second-hand copies should be made to the Hon. Editor. Numbers in parentheses—()—indicate parts of the volumes concerned.

- Vol. I—1881, 5/-; 1883, 5/-; 1889, 2/6; 1890-1, 5/- each; 1893-1900, 2/6 each.
- Vol. II—1901, 2/6; 1902, 5/-; 1904, 10/-; 1905, 7/6; 1907, 5/-; 1908, 7/6.
- Vol. III—1911, 5/-; 1913 (5), 7/6; 1913 (6), 3/6; 1913 (Suppl.), 5/-.
- Vol. IV—1914 (1), 10/-; 1915, 10/-.
- Vol. V—1917, 10/-; 1918, 7/6; 1919 (5), (6), 10/- each.
- Vol. VI—1920 (1), 10/-; 1920 (2), 5/-; 1921 (3), 10/-; 1921 (4), 5/-; 1922 (6), 5/-.
- Vol. VII—1923 (2), 5/-; 1924 (3), 15/-; 1924 (4), 5/-; 1924 (Interim), 6d; 1925 (5), 15/-; 1925 (6), 5/-.
- Vol. VIII—1926 (1), 10/-; 1926 (2), 5/-; 1927 (3), (4), 10/- each; 1928 (5), 10/-; 1928 (6), 5/-.
- Vol. IX—1929 (1), 10/-; 1930 (3), 15/-; 1930 (Interim), 2/-; 1931 (5), 10/-; 1931 (6), 7/6.
- Vol. X—1932 (1), 20/-; 1932 (2), 5/-; 1933 (3), 10/-; 1933 (4), 5/-; 1934 (5), 10/-; 1934 (6), 5/-.
- Vol. XI—1935 (1), 15/-; 1935 (2), 5/-; 1936 (3), 15/-; 1936 (4), 5/-; 1937 (5), 15/-; 1937 (6), 5/-.
- Vol. XII—1938 (1), 15/-; 1939-40 (3), 15/-; 1939-40 (4), 5/-; 1941-2 (5), 15/-; 1943-4 (6), 15/-.
- Vol. XIII—1945 (1), 15/-; 1945 (2), 5/-; 1946-7 (3), 15/-; 1946-7 (4), 7/6.

SPECIAL OFFER OF BACK REPORTS. To enable new members to obtain a representative selection of earlier publications, they are offered certain back Reports at a greatly reduced price. The parts available are Vol. X, parts 3 and 5 (1933-4); Vol. XI, parts 1, 2, 3, 5, 6 (1935-7); and Vol. XII, parts 1, 3, 4, 5, 6 (1938, 1939-40, 1941-42, 1943-44), at the price of £3 post free.

SECONDHAND REPORTS. The runs listed below are offered at less than half-price. In some cases the covers are worn or torn, or the pages annotated, but they include parts which cannot be supplied separately out of the Society's stock.

RUN A.	Vols. II—XIII, 1901-1947	£16
RUN B.	Vols. IV—XIII, 1914-1947	£12 10s
RUN C.	Vols. VI—XIII, 1920-1947	£10
RUN D.	Vols. VI—XIII, 1920-1947	£10
RUN E.	Vols. VII—XIII, 1923-1947	£9

Certain parts of Volume I and other volumes are also available second-hand at half-price—details may be obtained from Mr Burnett.

PUBLICATIONS (continued)

WATSONIA

Vol. I (1949-50), parts 1-6, 7/6 each.

Members purchasing Reports and Watsonia for their own use are entitled to a reduction of 25%. This concession cannot be allowed on more than one copy or volume.

YEAR BOOK

1949, 7/6; 1950, 7/6; 1951, 7/6.

BRITISH FLOWERING PLANTS AND MODERN SYSTEMATIC METHODS. Ed. A. J. Wilmott, 1948, 10/-.

THE STUDY OF THE DISTRIBUTION OF BRITISH PLANTS. Ed. J. E. Lousley, 1951, 10/-.

BRITISH PLANT LIST, Ed. 2. Druce (1928). Bound and interleaved, 25/-.

THE COMITAL FLORA OF THE BRITISH ISLES. Druce (1932). Bound, 25/-; bound and interleaved, 30/-; unbound, 17/6.

THE FLORA OF NORTHAMPTONSHIRE. Druce (1930). Members are given the opportunity of purchasing this book at half-price, i.e., 10/-. The price to non-members remains at 20/-.

THE FLORA OF WEST ROSS. Druce (1929). 7/6.

REPRINTS FROM B.E.C. REPORTS AND WATSONIA

HISTORICAL

	s.	d.
Annals of the B.E.C. Foggitt (1932)	2	0
Samuel Brewer's Diary (N. Wales). Hyde (1930)	1	6
Du Bois Herb., British Plants in. Druce (1927)	1	0
Herbaria. Druce (1922)	1	0
John Blackstone, Apothecary and Botanist (1712-53). Kent (1949)	2	0
H. W. Pugsley Obituary and List of Works. Wilmott & Campbell (1949)	1	6

NOMENCLATURE

Duplicated Binomials. Druce (1924)	1	0
Nomenclature and Corrections to British Plant List. Wilmott. II (1941-2)	1	0
V (1946-7)	2	0
VI (1949)	1	0
Warburg. VII (1950)	1	0
Nomenclature of the British Species of Galinsoga. Lousley (1950)	1	0

TOPOGRAPHICAL

Vice-counties. Wilmott (1941-42)	1	0
Notes on Flora of Scilly Isles & Lizard. Raven (1950)	0	6
Adaptation in Branton Burrows. Wright (1932)	2	6
A List of Plants from the Isle of Wight. Drabble & Long (1931)	1	6
Flora of Surrey (Notes on). Druce (1931)	1	6

REPRINTS FOR SALE (continued)

Additions and Corrections to the Comital Flora for Middlesex. Kent (1949) ...	2	0
Notes on the Flora of Kensington Gardens & Hyde Park. Kent (1950) ...	1	6
Berks. and Oxon. Brenan (1943-4) ...	1	6
Neighbourhood of Oxford. Brenan (1946-47) ...	1	6
Emendations to C. F. for Beds. Dony (1943-4) ...	1	6
Contribution to the Flora of Huntingdonshire. Dony (1950) ...	2	0
Staffs., addition to C. F. Edees (1941-2) ...	1	0
Notes on the Flora of Buxton and district. Hall (1939-40) ...	2	0
Island of Mull. Wilmott (1939-40) ...	1	0
W. Sutherland (Lochinver). Wilmott and Campbell (1943-4) ...	1	0
Three Weeks' Botanising in Outer Hebrides. Campbell (1936) ...	2	0
Additions to Flora Zetlandica. Druce (1924) ...	2	0
Notes on the Vegetation of Zetland. Price (1928) ...	1	0
Flora of Foula. Turrill (1928) ...	1	6
Distribution of Pansies in Engl. and Wales. Drabble (1926) ...	1	6
Pansy Records. Drabble (1928) ...	0	6
Additional Pansy Records. Drabble (1930) ...	0	6
Habitats & Distribution of <i>Gentiana uliginosa</i> . Lousley (1950) ...	1	0
Botanising in Norway. Druce (1922) ...	1	0
Norway and Sweden. Druce (1925) ...	1	0
Le Lauteret. Druce (1926) ...	0	6
A Visit to the Canaries. Druce (1927) ...	0	6
Plants of the Cyprus Flora. Druce (1930) ...	1	0
Egypt and Palestine. Druce (1925) ...	1	0

ALIENS

Adventive Flora of the Port of Cardiff and additions. Wade & Smith (1925 and 1926), each ...	1	0
Adventive Flora of the Port of Bristol. Sandwith (1932) ...	2	6
Adventive Flora of Burton-on-Trent. Curtis (1930) ...	1	6
Adventive Flora of Burton-on-Trent. Burges (1943-4) ...	1	0
Southampton Docks. Brenan (1945) ...	1	0

SYSTEMATIC

Extinct and Dubious Plants of Britain. Druce (1919) ...	3	6
Notes on British Batrachia. Pearsall (1921) ...	2	0
Identification and Distribution of the British Watercress Species. Howard & Lyon (1950) ...	1	6
New Species of <i>Erophila</i> in Britain: <i>E. conferta</i> . Wilmott (1949) ...	0	6
<i>Viola odorata</i> . Walters (1943-4) ...	1	0
Floral Variation in <i>Stellaria Holostea</i> L. Brenan & Lousley (1943-4) ...	1	0
British Brambles. Trower (1928) ...	3	6
Welsh Species of <i>Rubus</i> in Britain. Watson (1949) ...	2	0
<i>Rubus Watsonii</i> sp. nov. Mills (1949) ...	1	0
<i>Rubus corylifolius</i> var. <i>purpureus</i> Bab. Watson (1950) ...	1	0
<i>Achemilla vulgaris</i> L. agg. in Britain. Walters (1949) ...	2	6
<i>Aphanes microcarpa</i> (Boiss. et Reut.) Rothm. in Britain. Walters (1949) ...	2	0
Australian <i>Myriophyllum verrucosum</i> Lindley in Britain. Brenan & Chapple (1949) ...	1	6
<i>Artemisia Verlotorum</i> Lamotte and its Occurrence in Britain. Brenan (1950) ...	2	6
× <i>Senecio londinensis</i> . Lousley (1943-4) ...	1	0
<i>Centaurea pratensis</i> Thuill. Britton (1926) ...	0	6
<i>Lapsana intermedia</i> in Britain. Burtt (1950) ...	1	0
<i>Cuscuta europaea</i> var. <i>nefrens</i> . Verdcourt (1945) ...	0	6

REPRINTS FOR SALE (continued)

Correct Name for <i>Veronica aquatica</i> Bernh. Burnett (1950) ...	1	0
Another British <i>Rhinanthus</i> with Pubescent Calyx. Wilmott (1949) ...	1	0
<i>Menthae Briquetianae</i> . Fraser (1924) ...	2	6
<i>Menthae Britannicae</i> . Fraser (1926) ...	2	0
Notes on <i>Mentha</i> . Fraser (1930) ...	1	0
Mint Notes. Graham, I (1949), II (1950), each ...	1	0
<i>Rumex</i> II. Lousley (1941-2) ...	2	0
Lines of Evolution and Geographical Distribution in <i>Rumex</i> Subgen. <i>Lapathum</i> . Rechinger (1949) ...	1	6
<i>Ficus Carica</i> L. Lousley (1946-7) ...	1	6
Key to the British Species of <i>Salix</i> . Rechinger (1949) ...	2	6
Observations on some Scottish Willows. Rechinger (1950) ...	1	6
Studies in the British <i>Epipactis</i> , I and II. Young (1949) ...	2	0
The Kenfig <i>Epipactis</i> . Thomas (1950) ...	2	0
<i>Orchis maculata</i> and <i>O. Fuchsii</i> . Druce (1923) ...	2	0
<i>Orchis latifolia</i> . Vermeulen, Pugsley, Wilmott (1945) ...	1	6
<i>Orchis cruenta</i> Müll in the British Islands. Heslop-Harrison (1950) ...	2	0
Distribution and Ecology of <i>Scheuchzeria palustris</i> L. Sledge (1949) ...	2	0
<i>Carex flava</i> and <i>C. muricata</i> . Nelmes (1945). ...	1	0
Another Hybrid <i>Carex</i> from Ireland. Nelmes (1949) ...	1	0
<i>Milium scabrum</i> Merlet. Tutin (1950) ...	1	0
<i>Avena strigosa</i> . Marquand (1921) ...	1	0
British Fescues. Howarth (1946-47) ...	2	0
Note on Species Pairs in the Gramineae. Tutin (1950) ...	1	0
<i>Equisetum ramosissimum</i> as a British Plant. Alston (1949) ...	1	6

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Evolution and Classification of Flowering Plants. Parkin (1926)	0	6
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