BRITISH LICHEN SOCIETY President: C. G. Dobbs, Ph.D. BULLETIN 25 November 1969 University Extension lectures on lichens

Mr P. W. James will be giving a course of twelve meetings (including two visits) on lichens at Chelsea Physic Garden, Royal Hospital Road, Chelsea, London S.W.3, each week from Monday 12 January 1970 at 19.00 hours. This University of London Extension Course is a new venture designed to cover all aspects of modern lichenology, including ecology, physiology, chemistry and taxonomy. The enrolment fee is £1. 2. 6. and application forms may be obtained from The Deputy Director (Extension); Department of Extra-Mural Studies, University of London, 7 Ridgmount Street, London W.C.1.

International Association for Lichenology formed

At the Botanical Congress at Seattle, U.S.A., in August 1969 an International Association for Lichenology was formed. The officers elected were Mr .P. W. James, President, Dr. G. Follmann, Vice-president, Dr. Hildur Krog, Secretary, Dr. V. Ahmadjian, Editor, and Dr. I. M. Brodo, Associate-editor. The Association has taken over the ownership of the International Lichenological Newsletter from Dr Ahmadjian, and will continue with its publication. Details of the Association may be obtained from the Secretary, Dr Hildur Krog, Botanical Museum, Toyen, Oslo, Norway.

Nominations for Officers and Council

Nominations for Officers for 1970 and Council Members for 1970 - 711. should be sent to the Secretary before 20 December 1969 on the enclosed form. No person may be nominated without their consent. Dr .K. L. Alvin, Mrs. A. G. Side and Miss N. Wallace retire from the Council and are not eligible for re-election.

Annual General, Lecture and Exhibition Meeting. 3 January 1970

The Annual General Meeting will be held at 10:00 on Saturday 3 January 1970 in the Department of Botany, Imperial College, Beit Hall, Prince Consort Road (north side), South Kensington, London S.W.7, by kind invitation of Professor C. P. Whittingham, head of the Department. The nearest Underground station is South Kensington, and Exhibition Road connects this station with Prince Consort Road. The Department is immediately to the south of the Albert Hall. It is hoped that all members will endeavour to attend. A THE SECOND CONTROL OF THE SECOND CONTROL O

- Agenda

 Agenda

 1. Apologies: for absence:
- 2. Minutes of the last Annual General Meeting.

 3. Matters arising:

 4. Reports of the officers.

 5. Indoor meeting, 1970.

 6. Place and dates of autumn meeting, 1970.

 - 7. Place and dates of annual general, spring and summer meetings, 1971.
 - 8. Election of auditor.
 - 9. Election of three members of Council.
- 10. Election of officers, including President and Vice-president.

J. R. LAUNDON

Honorary Secretary Following the Annual General Meeting there will be the Exhibition meeting from 11.00 until 12.00. Members are asked to make a special effort to contribute exhibits of lichenological interest.

The Lecture meeting will continue in the afternoon in the same building,

devoted to biogeographical aspects of lichenology. Following the two main lectures there will be an hour for short communications related to the biogeographical theme; members wishing to speak are kindly requested to complete the enclosed form and return it to the Secretary before 20 December 1969 stating the time required; an additional five minutes will be available to each speaker for answering questions. The Secretary will inform prospective speakers if they can be accommodated. Members wishing to show transparencies should also complete the form.

The day's programme is as follows:-. .

10.00. Annual General Meeting.

: 11.00. Exhibition Meeting.

12.00. Lunch. Members to make their own arrangements.
14.00. Lecture. F. ROSE, Ph.D. The distribution and present status of the geographical elements in the lichen flora of southern Britain.

15.00. Tea interval.

15.30. Lecture. P. W. JAMES, B.Sc., F.L.S. Geographical distribution patterns of certain elements in the British lichen flora.

16.30. Short communications.

17.30. Close of meeting:

Spring field meeting in Bretagne, France, 1970

The spring field meeting will be held in Bretagne (Brittany), France, from Wednesday 1 April to Saturday 11 April 1970, under the leadership of Dr F. Rose. The first four nights will be spent at Pontivy in the Hotel Voyageur (35 rooms) and the last six nights at Morgat in the Hotel St. Marine (58 rooms). The provisional programme is as follows: .

Wednesday 1 April. Travel via Southampton to Cherbourg. Coach from Cherbourg to Pontivy.

Thursday 2 April. Forêt de Paimpont & Schistes Rouges.

Friday 3 April. Coast of Morbihan.

Saturday 4 April. Forêt de Quenecan.

Sunday 5 April. Forêt de Carnoët. Coach to Morgat.

Monday 6 April. Coast of Crozon & Ménez Hom.

Tuesday 7 April. Forêt de Cranou.

Wednesday 8 April. Huelgoat & St Herbot.

Thursday 9 April: Forêt de Coat-loch & Montagnes Noires.

Friday 10 April. Montagnes d'Arrée.

Saturday 11 April. Coach from Morgat to Cherbourg.

For the outgoing journey it is advised that members travelling via London should depart Waterloo at 7.47 and arrive Southampton at 9.14. They should then take a bus or taxi to the docks in order to catch the 10.30 Thoreson Car Ferry which arrives at Cherbourg at 15.30. Members will meet in the Custom hall at 15.30 in order to assemble for the coach to Pontivy. For the return journey the coach will take members from Morgat to Cherbourg to catch the 16.30 Thoresen Car Ferry which arrives Southampton at 21.30. Some members may be advised to spend the night in Southempton on their return, as the last train leaves Southampton at 22.12 arriving London at 00.24 on Sunday 12 April. The return fare from London to Southampton is about £2.10.0, and the return fare from Southampton to Cherbourg £7.

The journey to the various localities on the meeting will be by coach, and members are requested not to bring their cars. It is expected that several French lichenologists will be able to take part. The cost of the hotel at Pontivy for dinner, bed & breakfast will be about £2.5.0. per day and that at Morgat about £2.12.0. per day. Some members may have to share twin-bedded rooms, but these are cheaper than single rooms. Food for lunches and coach fares of about £8 will be additional. Those attending are requested to return the enclosed form to Dr Rose before 31 December 1969 so that he can book accommodation on members' behalf.

Summer field meeting in north Yorkshire and the Cheviots, 1970

The summer field meeting will be held in north Yorkshire and the Cheviots. The first week will be centred on Richmond, Yorkshire, from Thursday evening, 30 July until Wednesday morning 5 August 1970. The Black Lion Hotel will be the headquarters accommodation and members should meet outside here at 9.30. on Friday 31 July. Mr B. J. Coppins and Mr. M. R. D. Seaward are leaders for this part of the meeting and members must book their own accommodation and return the enclosed form to Mr Coppins. The accommodation is as follows:

*King's Head Hotel, Richmond, Yorkshire (Telephone: Richmond 2311).

18 rooms. £2.10.0. bed & breakfast.

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*Black Lion, Finkle Street (Headquarters) (Telephone: 3121). 18 rooms. Black Lion, Finkle Street (Headquarters) (Telephone. £1.12.6. bed & breakfast.
Turf Hotel, Victoria Road (Telephone: 3262). 5 rooms. £1.10.0. bed

*Terrace House Private Hotel (Telephone: 2342). 5 vacant rooms.

£1.10.01 bed & breakfast. *Frenchgate Guest House, Frenchgate (Telephone: 2087)...12 rooms. £1.7.6. bed & breakfast.

Mrs. M. H. Davies, 16 Victoria Road. 4 rooms. £1.0.0. bed & breakfast.
Mrs. M. Harrison, 56 Frenchgate (Telephone: 2353). 6 rooms. £1.1.0.

Mrs. A. Sargent, 43 Milgate. 17/6 bed & breakfast.

The second week will be centred on Wooler, Northumberland, from Wednesday evening, 5 August to Wednesday morning 12 August, under the leadership of Dr O. L. Gilbert. The Tankerville Arms Hotel (formerly the *Cottage Hotel) will be the headquarters accommodation and members should meet outside here at 9.30 on Thursday 6 August. Members are advised to book early as accommodation is limited, and they should then return the enclosed form to Dr. Gilbert. Anyone having difficulty with accommodation should contact Dr Gilbert.

Anchor Inn, Wooler, Northumberland (Telephone: Wooler 412). 4 rooms.

£7.0.0. full board per week.

*Black Bull Hotel (Telephone: 309). 12 rooms. £16.16.0. full board.

Rockliffe Guest House, Glendale Road. 6 rooms. £8.8.0. full board. *Ryecroft Hotel (Telephone: 459). 12 rooms. £15.15.0. full board. Tankerville Arms Hotel (headquarters) (Telephone: 308). 19 rooms.

E21.17.6. full board; £17.17.0. half-pension.

*Wheatsheaf Hotel (Telephone: 434). 9 rooms. £12.0.0. full board.

Mrs. N. C. Allan, East View. 3 rooms. £7.0.0. full board.

Mr J. Bailey, Terrace Cafe (Telephone: 281). 2 rooms.

£7.0.0. full board.

Mrs. F. Coxon, Nent House, Cheviot Street. 5 rooms. £7.17.6. full

board.
Mrs. I. Moffat, 1 Cheviot House, Cheviot Street. 3 rooms. £6. 2. 6. full board.

*AA listed hotels and guest houses.

Members booking full board must point out that they will require packed lunches each day. There is a Youth Hostel at Wooler. At High Humbleton, 1 km west of Wooler, the following accommodation is available: and the second of the

Miss M. Cowing, Glen View, High Humbleton, 2 rooms. 27. 7. 0. full board.

.The Cheviot Hills, rising to over 820 m, offer a good range of alpine habitats, while the relict woodland which has been preserved in various parklands contain a lichen flora unaffected by air pollution. The Northumberland coastline is wild and rocky (sandstone, whinsill and limestone) and extensive Cladonia rich dunes exist on Holy Island. It is planned to make several excursions into southern Scotland where corticolous communities are reported to be exceptionally good. The Cheviot Hill's have received only occasional visits from lichenologists since N. C. Winch (1770 - 1837) recorded a rich arctic-alpine flora (including Cladomia rangiferina) and most members of the Lobarion. Southern Scotland is even less well known.

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Lichenologist

Part 2 of volume 4 of The Lichenologist was published on 2 May 1969. Any 1968 member who did not receive a copy should inform the Secretary.

Bulletin bindings

A title-page and index for <u>Bulletins</u> 1 - 25 is issued with this <u>Bulletin</u> for those who wish to keep their <u>Bulletins</u> in bindings. Permanent binding of the <u>Bulletin</u> is not recommended because of the narrow margins. Bindings comprising two sheets of foolscap card and a plastic slidebinding spine half an inch wide can be obtained from large stationers.

Lichen study group

The Lichen Study Group circulates parcels of named specimens for the benefit of beginners. At present it is being run by Mr J. D. Guiterman, 72 Harrowdene Road, Wembley, Middlesex. The specimens which makes up a parcel have a common theme, such as being the British representatives of a particular genus or part thereof, and the material is accompanied by notes on its identification. Enquiries about the group should be sent direct to Mr Guiterman.

Individual Maps Scheme

The following addition to the list of individual mappers should be noted:

Nephroma

D. R. Slingsby, Department of Botany, The University, Bristol, BS8 1UG.

Pertusaria amara

D. R. Slingsby.

P. pertusa

D. R. Slingsby.

Outline maps

A foolscap size outline map of the British Isles, dissected into 10 km grid squares, is now available from the Mapping Recorder, Mr M. R. D. Seaward, Department of Biology, Trinity & All Saints' Colleges, Horsforth, Leeds, LS18 5HD, price 3d. each post free, but with a minimum order of six copies. This map is for use in plotting the distribution of lichens from grid records.

Two other outline maps are also available from the Mapping Recorder. These are an outline map of Ireland, showing the extended 10 km grid references, price 2d. each post free (minimum order: 6 copies) and an outline map of the vice-counties of the British Isles price 3d. each post free (minimum order: 6 copies).

Mixtures of any of the above three maps in any ratio are available for 1/6d. for 6 copies post free from the Mapping Recorder.

A useful outline map for 10 km grid squares in Great Britain is the Ordnance Survey of Great Britain index to the 1:25,000 series, which has the advantage of giving the grid reference within every square. Copies are obtainable free from the Ordnance Survey, Chessington, Surrey.

Over-collecting

'Dr F. Rose and Mr D. L. Hawksworth would like to emphasise the dangers in collecting in the British Isles large samples of lichens for use in dyeing, chemical examination, practical and physiological work. Many locally common species, such as Evernia prunastri, Hypogymnia physodes, and Parmela caperata, are now very rare in large areas of the country (particularly in the Midlands) and could become extinct therein as a result of collecting. Persons wishing to make such studies should search their consciences and consider whether the purpose for which they require the material justifies its large scale collection. For bona fide scientific studies discretion should be used in the collection of material, and care taken to collect in an area where the species is common, and not to remove complete populations from a single locality. It is perhaps significant that many species (e.g. Lobaria pulmonaria. Ochrolechia tartarea. Parmelia caperata) are now rare or extinct in areas where they were used for dyeing or medicinal purposes.

Dr. Swinscow receives Bloomer award

Dr. T. D. V. Swinscow was presented with the H. H. Bloomer award and medal by the Linnean Society of London this year for his work as an amateur, naturalist who has made an important contribution to biological knowledge. Professor A. R. Clapham in his presentation address referred to the fact that not only was Dr. Swinscow a medical doctor and Assistant Editor of the British Medical Journal, but he was also one of the leading authorities on British lichens, as well as the prime mover in the foundation of the British Lichen Society. He said that Dr. Swinscow had studied arachnids, then ferns, later mosses and liverworts, and now lichens. Professor Clapham ended by drawing a parallel between the study of lichens which "may commit suicide by too close an approach to the centres of our great industrial cities" and Dr . Swinscow's medical publications: "Some suicide statistics", ... "So-called accidental suffocation of infants", etc.

U. K. Duncan

A contain and and the fell at any tens Miss U. K. Duncan, Parkhill, Arbroath, Angus, has received an honorary doctorate (LL.D.) from the University of Dundee. The doctorate was awarded for her contributions to the study of lichens, bryophytes and vascular plants, as well as to agriculture.

Dr. Richardson and Dr. Kershaw accept posts in Canada

The Annie of the Committee of the Commit The Assistant Editor of The Lichenologist. Dr. D. H. S. Richardson, has left Exeter University and accepted a position at a University in Canada. His new address is Laurentian University, Department of Biology, Sudbury, Ontario, the hand the second of the first of the second of the seco Canada.

Dr K. A. Kershaw has left Imperial College, London, to work in the Department of Biology, McMaster University, Hamilton, Ontario, Canada.

Seed a new relations of the second of the second The departure of Dr. Richardson and Dr Kershaw for Canadian Universities makes Canada the leading country for emigrating British lichenologists. Dr. J. W. Sheard and Dr G. A. Yarranton are others who have recently obtained posts in Canada, not forgetting Dr I. M. Lamb many years before them. This exodus is further evidence that the facilities for lichenological research in Britain are in need of improvement.

Kew lichens transferred to British Museum

The exchange, referred to in Bulletin 24, of the cryptogamic plant collections between the British Museum (Natural History), London, and the herbarium of the Royal Botanic Gardens, Kew, has now taken place: The collections of lichens, mosses, and algae formerly present at Kew have been moved to the British Museum on permanent loan and interspersed amongst the Museum's own collections. The fungi which were formerly held by the British Museum have been moved to Kew, except for the Myxomycetes and a representative collection of British fungi which remain etathe Museum.

Hand lenses

A hand lens is the only essential piece of equipment for the study of lichens. The most useful magnification is x 10. The Society can recommend a Watson x 10 Aplanatic Magnifier in pocket mount (Code No. 70 381) for £4.10.0. plus postage from W. Watson & Sons Ltd., Barnet, Hertfordshire. These lenses are noted for their wide field, excellent definition, brilliant image and good working distance. They should be ordered by post and delivery takes up to: four months: The fact of the fact o

A leather boot lace makes a strong and fashionable neck cord fof wearing the lens in the field.

Cameras for lichen photography

The most useful camera for the photography of lichens is the single lens reflex because extension tubes can be fitted between the lens and body for close-up work to natural size, and the lichen can be viewed and focused on a screen which gives the same image as that appearing on the film. Recently a report on the cheaper single lens reflex cameras appeared in Which? July 1969, the journal of the Consumers' Association. All single lens reflex cameras available in the United Kingdom with list prices of under £50 were tested, together with the £80 Asahi Pentax Sla (one of the most popular and renown cameras of this type) for comparison. The cameras compared and reported upon were as follows:

Exa la, with f/2.9 Meritar lens. £20. 9. 4. plus case £4. 8. 1.

Exa 500, with f/2.8 Domiplan lens. £39.19. 6. plus case £4. 8. 1.

Pentaflex SL, with f/2.8 Pentaflex-color lens. £29.19.6. plus case £4.19. 6.

Praktica Nova 1, with f/2.8 Domiplan lens. £47.19.6. plus case £4.19.6.

Zenith B; with f/2 Helios lens. £40.18. 9. (case included)

Zenith 3M, with f/3.5 Industar lens. £22. 6. 0. (case included)

The report points out that the Exa la and both Zenith cameras do not have automatic diaphragms (for full aperture viewing), the Exa la has no pentaprism (for seeing the image the right way round) and the Exa la and Zenith 3M lacked instant return mirrors for continuous viewing. Moreover, the Exa la and Zeniths had plain viewfinder screens on which focusing was difficult. As regards performance, only the Pentax and Zenith 3M had reasonably accurate shutter speeds, those of the Exa la being particularly inaccurate, and of the lenses only the Helios on the Zenith B and the Super Takumar on the Pentax were outstanding. Forty per cent of a sample of 1,200 single lens reflex cameras developed faults, chiefly in the shutter, when they were still mostly under two years old, and of these, ten per cent still had these faults after being returned from repair which often took two months.

As regards value for money Which? concludes that for good pictures from the cameras and lenses reviewed one should buy either the Zenith 3M body with the f/2 Helios lens for £37 or the Praktica Nova with the f/2 Helios lens for £54, or one of the dearer Prakticas (not reviewed) with a Tessar or Oreston lens. A disadvantage of the Helios lens was that it was pre-set and not automatic. For lichen photography the Helios lens (like the Super Takumar, Tessar and Oreston) would have the advantage in being able to focus to under 45 cm, whereas the other lenses reviewed focus to only 75 cm, and are therefore incapable of close-up work without extension tubes. None of the cameras was found to be as good in all respects as the Asahi Pentax costing £80.

Which? costs £1.10.0. for a twelve month subscription from Which?, Dept. W, Caxton Hill, Hertford, and the July 1969 back number is 3/-. Alternatively the report on these cameras can be consulted free in most public reference libraries. For a detailed account of lichen photography see I. S. C. Campbell's article in <u>Bulletin</u> 23.

Saving money on scientific equipment

Import Duty can be refunded on scientific equipment of foreign manufacture if it is to be used for research or the advancement of knowledge. A Board of Trade form for this purpose should be obtained from the vendor, on which reasons for the superiority of the foreign article over a named British one of similar price must be stated. The Board of Trade issues a refund to the vendor who passes it on to the purchaser. As an example a refund of about £20 on a £150 microscope is available by filling in the necessary form.

The following are additions to the list of members engaged on the projects listed in Bulletin 23. Additions are welcome for inclusion in future Bulletins.

A street to be a street to be ARMSTRONG, MRS. P. K., 535 South Washington Street, Naperville, Illinois 60540, U.S.A.

The ecology and distribution of lichens and bryophytes on the cliffs and talus of Devils Lake, Wisconsin, U.S.A.

WARD, DR S. D., The Nature Conservancy, Headquarters for Wales & Bangor Research Station, Penrhos Park, Bangor, Caernarvonshire. Study of the saxicolous lichen communities of the Holyhead region of Anglesey.

New members

The following members joined the Society between March and October 1969:

Ainsworth, Dr G. C., Long Hay, Treligga, DELABOLE, Cornwall.
Christensen, Dr H. A., 566 West 2nd South, TOOELE, Utah 84074, U.S.A.
Fox, Dr B. W., Tryfan, Longlands Road, New Mills, STOCKPORT, Cheshire, SK12 3BL..

Harker, M. J., Fairmount, Harleigh Road, BODMIN, Cornwall.
Harmar, A. J., 125 Home Park Road, Wimbledon, LONDON S.W.19.
Haslett, B. G., 21 Belle Vue Crescent, Clifton, BRISTOL 8.
Hemingway, G. E. C., Blatchington Court School, SEAFORD, Sussex. Lucas, C. F., 40 Holly Wood, Great Barr, BIRMINGHAM 22A. Lucas, C. F., 40 Holly Wood, Great Barr, Bintingham 200.

McWilliams, Miss M., Digby Stuart College, Rochampton, LONDON S.W.15. McWilliams, Miss M., Digby Stuart College, noemampton, Milnes-Smith, Mrs. M. D., 2 Darnley Terrace; LONDON W.11. Mullins, Miss B., Glasses Barn, Graffham, PETWORTH, Sussex.
Mullins, Mrs. G., Glasses Barn, Graffham, PETWORTH, Sussex. Nash, T. H., Department of Botany, Rutgers University, NEW BRUNSWICK,

N.J. 08903, U.S.A.

Ollerenshaw, B. M., Wyldacre, West Park, HYDE, Cheshire. Prince, C. R., B.Sc., Department of Botany, The University, Johnston Hall, College Bounds, OLD ABERDEEN, AB9 2TT.

Richards, G. P., Woodhouse Close, Penybout Road, KNIGHTON, Radnorshire. Richards, G. P., Woodhouse Close, Penybout Road, ANIGHTON, Radiology, Solberg, Dr Y., Chemical Research Laboratory, Agricultural College of Norway, P.O. Box 31, N-1432 VOLLEBEKK, Norway.

Thestrup, Mrs. J., Rektorparken 14, 8 TV, DK-2450 KØBENHAVN SV, Denmark.

Politics and biological meetings. The Federation of European Biochemical Societies have adopted the following principles as a guide to the selection of towns and cities for the holding of international meetings:

1. Freedom for all foreign participants to enter and leave the country concerned. This requires recognition of valid passports and issue of visas without difficulty.

2. Complete freedom of speech on scientific matters at the meeting, both . in the official sessions and in private discussions. As a tradition, political, religious and racial questions should not be discussed at official sessions.

3. Freedom of movement in the city where the meeting is being held.

At a recent meeting of the Biological Council the difficulties involved in the implementation of the first principle were mentioned. It was implied that meetings might not be held in the U.S.A. because members of a Communist party in a western European country were not normally admitted, and neither could they be held in the U.S.S.R. because citizens of Israel were not at present issued with visas until it was too late for them to travel.

The Federation adopted these principles because of incidents concerning their international meeting in Madrid, Spain, in April 1969. In the preceding February the Spanish authorities declared a state of exception and closed The state of the contract of the state of th

some of the Universities. The Swedish Society suggested that this was sufficient cause to prevent the meeting being held, but the Executive Committee of the Federation of European Biochemical Societies proposed the above principles and considered that the conditions of the Madrid meeting would meet them. In the event the meeting in Madrid did take place and the state of exception was removed beforehand, and the Universities were opened. Nevertheless a number of individuals decided not to attend, and two people indicated that their presence at the meeting did not signify support for the present regime in Spain, despite such action being contrary to the second principle.

Literature on lichens

- AHMADJIAN, V. 1969. Factors influencing the establishment of lichens in artificial culture. Mem. Soc. bot. Fr. 1968: 27 34. (Review.)
- ANON. 1969. No lichen secrets here. <u>Dartington Hall News</u>, 2453: 5. (Newspaper article, regarding the seminar on lichen dyeing at Dartington College of Arts, Devonshire.)
- BAILEY, R. H. 1969. Dispersal of lichen soredia in water trickles. Revue bryol. lichen. nouv. sér. 36: 314 315. (Soredia of Lecanora conizacoides and Lepraria incana can be dispersed by water trickles.)
- BARKMAN, J. J. 1969. The influence of air pollution on bryophytes and lichens.

 <u>Air Pollution. Proceedings of the First European Congress on the Influence of Air Pollution on Plants and Animals:</u> 197 209. (Important review paper, relating chiefly to the Netherlands, with map of epiphytic vegetation.)
- BARKMAN, J. J. et al. 1969. The effects of air pollution on non-vascular plants. Air Pollution. Proceedings of the First European Congress on the Influence of Air Pollution on Plants and Animals: 237 241. (Summary of discussions amongst several leading authorities.)
- BROWN, D. H. & BROWN, R. M. 1969. Lichen communities at Blakeney Point, Norfolk.

 <u>Trans. Norfolk Norwich Nat. Soc.</u> 21: 235 250. (Detailed ecological study.)
- CHADEFAUD, M., LETROUIT-GALINOU, M.-A., & JANEX-FAVRE, M.-C. 1969. Sur l'origine phylogénétique et l'évolution des Ascomycètes des lichens. Mém. Soc. bot. Fr. 1968: 79 - 111.
- CULBERSON, W. L. 1969. The use of chemistry in the systematics of the lichens.

 Taxon. 18: 152 166. (Review article, dealing especially with the chemistry of Cetrelia and Platismatia and the Ramalina siliquosa chemical races. "The fact that major chemical races ... maintain their complete identity in places where they are sympatric suggests that such races are perhaps better regarded as distinct species".)
- FOLLMANN, G. 1969. Flechtensymbiose und Flechtenstoffe. Mém. Soc. bot. Fr. 1968: 161 167. (Functions of lichen substances.)
- GARRETT, R. M. 1969. Observations on the germination of lichen ascospores.

 <u>Revue bryol. lichen.</u>, nouv. sér. 36: 330 332.
- GILBERT, O. L. 1969. The effects of SO2 on lichens and bryophytes around Newcastle upon Tyne. <u>Air Pollution. Proceedings of the First European Congress on the Influence of Air Pollution on Plants and Animals:</u> 223 235. (Account of the author's important work at Newcastle.)
- HAWKSWORTH D. L. 1969. Chemical and nomenclatural notes on Alectoria (Lichenes) I. Taxon, 18: 393 399. (Revision of the taxonomy and nomenclature of Alectoria capillaris (Ach.) Cromb. (A. implexa auct.),

 A. implexa (Hoffm.) Nyl., A. nidulifera Norrl. ex Nyl., A. pseudofuscescens Gyeln., and A. subsarmentosa Stirt. Also discussed are A. furcellata
 R. Sant. and A. patagonica R. Sant.; which are concluded to be synonyms of other species.)
- HAWKSWORTH, D. L. & ROSE, F. 1969. A note on the lichens and bryophytes of the Wyre Forest. Proc. Bgham nat. Hist. phil. Soc. 21: 191 197. (Records of 37 lichens, with discussion regarding the poverty of the lichen flora.)

- HENNIPMAN, E. 1969. De Nederlandse Cladonia's (Lichenes). <u>Wet. Meded. K.</u>
 <u>ned. natuurh. Veren.</u> 79. (An account of the species of <u>Cladonia</u> in the
 Netherlands. Twenty-two plates of excellent drawings.)
- HENSSEN, A. 1968. Thyrea radiata, eine Lempholemma-Art mit Hormocystangien.

 Ber. dt. bot. Ges. 81: 176 182. (Account of Lempholemma radiatum (Sommerg.) A. Henssen (Thyrea radiata (Sommerf.) Zahlbr.).)
- KALGUTKER, R. M. & BIRD, C. D. 1969. Lichens found on Larix lyallii and Pinus albicaulis in southwestern Alberta, Canada. <u>Can. J. Bot.</u> 47: 627 648. (Study of the ecology and distribution of epiphytic lichens on these species.)
- KOFLER, L. JACQUARD, F. & MARTIN, J.-F. 1969. Influence de fumees d'usines sur la germination des spores de certains lichens. Mem. Soc. bot. Fr. 1968: 219 230. (Inhibition of the germination of the spores of Physcia pulverulenta by dust particles from air pollution; the "spores of <u>Xanthoria parietina</u> and above all of <u>Lecanora hageni</u> are much more resistant.")
- LEBLANC, F. 1969. Epiphytes and air pollution. Air Pollution. Proceedings of the First European Congress on the Influence of Air Pollution on Plants and Animals: 211 221. (Account of three polluted areas in Canada, in two of which the pollution damage is considerable.)
- LETROUIT-GALINOU, M.-A. 1969. The apothecia of the discolichens. Bryologist. 71: 297 327. (Detailed study of twelve species resulting in the distinction of six apothecial types.)
- LETROUIT-GALINOU, M.-A. 1969. Les algues des lichens. Mém. Soc. bot. Fr. 1968: 35 77. (Detailed account of 23 genera.)
- LEUCKERT, C., GUSE, K. & POELT, J. 1969. Zur Chemotaxonomie der Pertusaria hymenea-Gruppe. <u>Herzogia</u>, 1: 159 171. (Chemistry of <u>Pertusaria</u> spp.)
- PENTECOST, A. 1969. The lichen flora of the Lizard. Lizard. 4: 7 13. (71 species from the Lizard, Cornwall.)
- POELT, J. & JULICH, W. 1969. Uber die Beziehungen zweier corticioider Basidiomyceten zu Algen. Ost. bot. Z. 116: 400 410. (Relationship between the fungus Athelia epiphylla Pers. (Corticium centrifugum Lév.) and Lecanora conizaeoides and algae.)
- PYATT, F. B. 1969. Ascospore germination in Pertusaria pertusa (L.) Tuck.

 Revue bryol. lichén., nouv. sér. 36: 316 320.
- PYATT, F. B. 1969. Ascospore germination in the lichen Ochrolechia parella (L.) Massal. Revue bryol. lichen., nouv. sér. 36: 321 322.
- PYATT, F. B. 1969. An investigation into conditions influencing ascospore discharge and germination in lichens. Revue bryol. lichen. nouv. ser. 36: 323 329.
- PYATT, F. B. 1969. Studies of the periodicity of spore discharge and germination in lichens. <u>Bryologist</u>. 72: 48 53. (Peaks of spore discharge and germination generally occur during the period October to January.)
- RUNDEL, P. W. 1969. Clinal variation in the production of usnic acid in Cladonia subtenuis along light gradients. <u>Bryologist</u>. 72: 40 44. ("The percentage of usnic acid in the dry podetia is directly related to the percentage of full sunlight in the microhabitat of the plants")
- SCHONBECK, H. 1969. Eine Methode zur Erfassung der biologischen Wirkung von Luftverunreinigungen durch transplantierte Flechten. Staub. 29 (1): 14 18. (The use of Parmelia physodes for the indication of the level of air pollution. The Parmelia plants are transplanted on to a number of boards which are then exposed at different places. "Their reactions are recorded photographically at definite intervals. The biological test values determined permit evidence of the existing emission load to be obtained, which can then be used in addition to the chemical air analysis". Photographs and drawings show the methods and results.)

- SEAWARD, M. R. D. 1969. Bryology and lichenology. <u>Trans. Lincs. Nat. Un.</u> 17: 103 104. (Includes additional divisional records of Lincolnshire lichens.)
- SLOOVER, J. DE. 1969. Pollutions atmosphériques et tolérance spécifique chez des lichens. <u>Mém. Soc. bot. Fr.</u> 1968: 205 217. ("A quantitative estimation of specific sensitivity of lichens to atmospheric pollutions.")
- SLOOVER, J. DE & LEBLANC, F. 1968. Mapping of atmospheric pollution on the basis of lichen sensitivity. <u>Proc. Symp. Recent Adv. Trop. Ecol.</u> 1968: 42 56. (Partly a review article, but incorporating the results of a pollution survey of the Dendre district of Belgium.)
- SMITH, D., MUSCATINE, L. & LEWIS, D. 1969. Carbohydrate movement from autotrophs to heterotrophs in parasitic and mutualistic symbiosis. <u>Biol. Rev.</u> 44: 17 90. (Includes discussion of lichens, as well as several other groups of organisms living together.)
- STELFOX, A. W. 1969. A rare lichen on Pigeon Rock Mountain, in the Mourne Mountains, Co. Down. <u>Ir. Nat. J.</u> 16: 245. (<u>Cystocoleus niger.</u>)
- TAYLOR, C. J. 1968. The lichens of Ohio. Part II. Fruticose and Cladoniform lichens. Biological Notes. The Ohio Biological Survey. 4. (Second part of this remarkably fine identification book. Obtainable from the Mailing Room, Ohio State University, 242 W 18th Avenue, Columbus 10, Ohio, U.S.A., for \$3.00.)
- TRASS, H. 1968. (Chemical taxonomy in present day lichenology.)

 <u>Tartu Riikliku Ülikooli Toimetised.</u> 211: 172 184. (Review of the taxonomic value of lichen substances, with special regard to geographical distribution.)
- TRASS, H. 1968. Samblikud-ohu saastatuse indiknatorid. <u>Eesti Loodus.</u> 11: 80 83. (Review of the problems of the study of city lichens with reference to Estonian towns.)
- TRASS, H. 1968. Indeks samblikuriihmituste kasutamiseks ohu saastatuse määramisel. <u>Eesti Loodus</u>, 11: 628. (Employment of lichen-coenological analyses to ascertain the extent of urban air pollution.)
- TROTET, G. 1968. Précis de Lichénologie. Paris. (Elementary text-book.)
- WALLACE, N. 1969. The Lichens of Pilgrim Fort. Croydon Field Studies, London Borough of Croydon. (Duplicated booklet including an account of the components, structure and reproduction of lichens, the species recorded at Pilgrim Fort, Catherham, Surrey, and a key. Obtainable from Mrs. Scott, Nuffield Mathematics Department, Coombe Cliff, Coombe Road, Croydon. Surrey, price 2/-.)
- WERNER, R. G. 1969. L'élaboration de la synthèse lichénique. Mém. Soc. bot. Fr. 1968: 11 23. (Review.)

Secretary's report for 1968

The membership at the end of 1968 was 425; compared with 405 at the end of 1967. The number of new members joining the Society was 41, which compares with 56 for the previous year: a decrease of 15. This is the first fall in the numbers of new members since 1962, and is probably partly due to the rather small number of copies of the Prospectus which were sent out during the year. It is with regret that the death of our member Miss E. E. Wilson is reported.

A number of important developments took place in 1968. Firstly, Blackwell Scientific Publications took over the production of The Lichenologist from the Society, and brought out volume four part one on 27 June; part two has reached proof stage. The editor, Mr James, and the authors are thanked for their valuable contributions. Secondly, the Bulletin included lengthy articles for the first time, for which Mr Campbell, Dr Richardson and Dr Swinscow are thanked; two numbers were issued during the year. Thirdly, the second edition of Dahl's Analytical Keys to British Macrolichens was issued in December and this work should prove a valuable aid in the identification of specimens; the Society is grateful to Dr Dahl and his collaborators for their extensive revision in bringing the keys up-to-date. Fourthly, a new record card, listing all widely distributed species, has been printed for use in the maps scheme. Fifthly, a Lichen Site Committee has been formed to aid in the conservation of lichen habitats.

The Society's meetings were stimulating and enjoyable. The Symposium, held in conjunction with the British Mycological Society, was the most important of these, at which papers were read on many different aspects of lichenology. The Annual General, Lecture and Exhibition Meeting was well-attended, and was addressed by Dr. Swinscow, Mr. Bailey and Dr. Richardson. Field excursions were held in the Isles of Scilly, Ashford (Kent), Cairngorm Mountains and King's Lynn, and Dr. Ranwell, Mr. Brightman, Miss Duncan, Mr. James and Dr. Rose are thanked for arranging and leading them and for making them a success. Two Council Meetings were held.

I take this opportunity of thanking the Officers for their efficiency in the running of the affairs of the Society, and all members for their helpful co-operation.

J. R. LAUNDON Honorary Secretary

(This report was presented at the Annual General Meeting, 4 January 1969).

BULLETIN 25. Issued by the British Lichen Society, c/o Department of Botany, British Museum (Natural History), Cromwell Road, London S.W.7. Edited by J. R. Laundon. Duplicated by Brown's Typewriting Service Ltd., Fulledge Works, Helena Street, Burnley, Lancashire. November 1969.

British Lichen Society

Income and Expenditure Account for the year ended 31 December 1968

Income		£. s. d.	•	Expendi ture	£. s. d.
Subscriptions Reading Circle Subscriptions Sales of "The Lichenologist" Sales of Check-list Sales of Keys Sales of Dahl's Keys Sales of Mapping cards Interest on Deposit Account Excess Expenditure over Income	for year	1005. 0. 3. 1. 5. 0. 203.12. 3. 18. 5. 0. 8. 4. 0. 25. 2. 0. 12.12. 6. 48. 0. 0. 1322. 1. 0. 235. 4.10. £1557. 5.10.		Printing "The Lichenologist" vol. 4, including net cost of reprints Duplication and printing Stationery, Addressograph plates etc. Postage Bank charges Blackwell Scientific Publications Ltd. costs Subscription to Council for Nature Subscription to "The Bryologist" Subscription to "Revue Bryologique et Lichen Mapping cards Refreshments at Annual General Meeting	5. 0. 0. 4.14. 0.
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		Balar	ace Sheet 31 Decemb	per 1968	
Subscriptions received in adva Sundry Creditors General Fund Balance 1 January 1968 4 Less Excess Expenditure over Income 1968		36.16. 3. 1172.17.11.		Cash at Bank and Petty Cash Cash on Deposit with The Central Investment Company Limited Sundry Debtors	315.15. 4. 1100. 0. 0. 30. 6. 0.
		£1446. 1. 4.		3	£1446.15. 4.
Department of Botany, The University, Bristol, BS8 1UG		Signed: D.	H. Brown Hon. Treasurer 1/8/1969	Audited and passed Signed: E. C. 1 Hon. A	100000000000000000000000000000000000000

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