

# BRITISH LICHEN SOCIETY BULLETIN

£0.50

December 1979

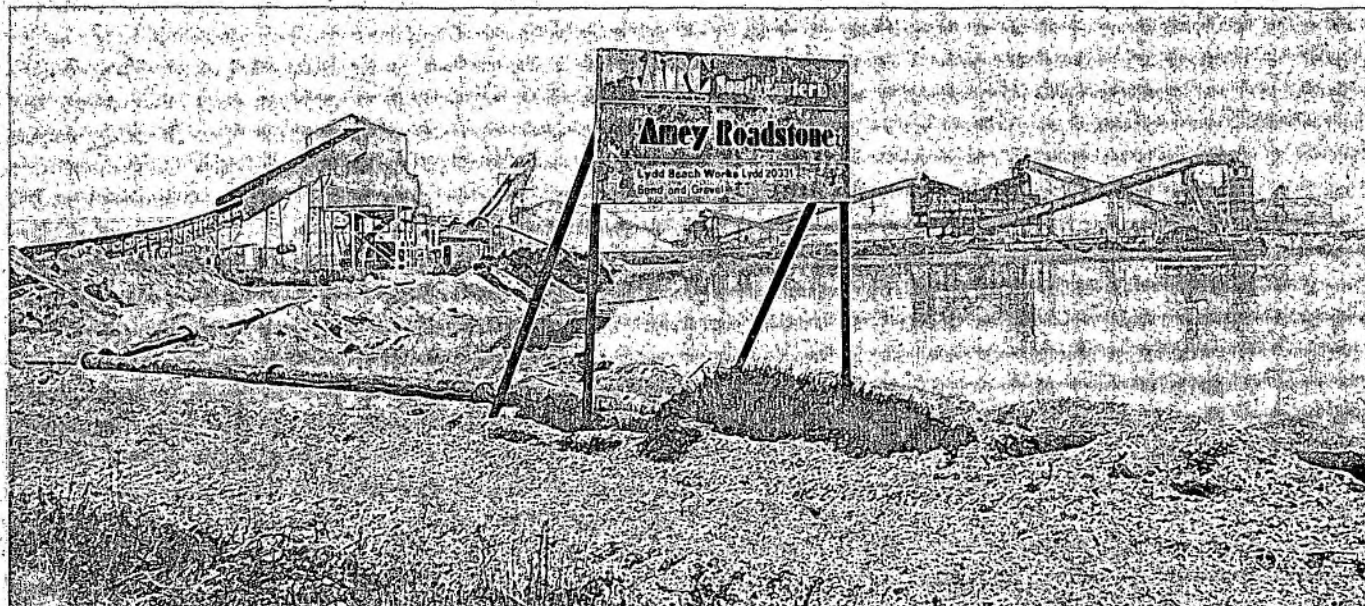
No. 45

President: F. H. Brightman, B.Sc.

## Dungeness faces devastation

Way beyond the lonely reed-filled dykes of Kent's Romney Marsh lies Denge Beach, popularly called Dungeness - a name which in reality is that of the headland reaching out into the English Channel. The whole area consists of shingle ridges, forming the largest foreland of its kind in Europe. The scientific interest of Denge Beach is unique, it being most highly regarded in many differing disciplines (2, 5). Physiographers look upon it as one of the world's major coastal depositional features, whilst ornithologists list it as one of their most important localities for migration, together with notable breeding and wintering bird populations. Several moths and other insects have their only British localities in the vicinity, whilst the vegetation includes not only "particularly interesting species, but is of unique value for the study of colonisation of new natural habitats by pioneer plants in very adverse conditions of soil and exposure to wind and salt spray" (2). There are important marsh and aquatic communities at the Open Pits, the only completely natural bodies of freshwater, with undisturbed hydroseres to Sphagnum bog and fen carr, known in south-east England. The British Lichen Society has listed the area as an International Lichen Site because of its importance for small crustacean species which colonise the bare pebbles, the tracts of rich Cladonia turf which play a major role in the vegetation cycle, and for the fruticose epiphytes on the blackthorn Prunus spinosa scrub. One arctic-continental lichen, Cladonia mitis, occurs in England only on Denge Beach. Although the area appeared in the first national list of proposed nature reserves compiled in 1915 (2), incredibly, it has never been so declared, but has instead been gnawed away by various interests, so that today only

Denge Beach today. Lichen-rich shingle ridges are rapidly being replaced by water-filled gravel-pits. The picture shows the ARC Pit opposite Boulderwall, the elevators of the gravel processing plant dominating the horizon. Photograph: J. R. Laundon, September 1979.



fragments of its former glory remain.

The pressures on Denge Beach are of several kinds:

1. Electricity generation by nuclear reactors. The area between Dungeness and Pen Bars is owned by the Central Electricity Generating Board. The first power-station, Dungeness A, was begun in 1960 and came on stream in 1965. The second, Dungeness B, was started in 1965 and remains unfinished. A third station, Dungeness C, is also planned. The reactors were built on an isolated site of considerable botanical importance (2), and shingle was churned up over a wide area during the initial construction. Subsequently the site has caused little disturbance to Denge Beach, and the CEGB authorities there have been a model of co-operation over conservation matters throughout. Today the lichen vegetation appears to be quite unaffected by any pollution from Dungeness A, thus indicating that nuclear generation of electricity is much preferable to oil or coal-fired methods as far as the lichen flora is concerned.

2. Gravel extraction. Extensive workings are scattered over the landward side of Denge Beach. The largest of these is operated by the Amey Roadstone Corporation Ltd., a subsidiary of Consolidated Gold Fields Ltd. (formerly The Consolidated Gold Fields of South Africa Ltd.) (1). The removal of the gravel results in the formation of ugly pits which rapidly fill with water.

3. Military usage. The whole of Holmstone Beach - renown for its open scrub of holly Ilex - on the west side has been requisitioned by the army since the last century and access is still restricted. Although the Ministry of Defence is very sympathetic to conservation interests, there is much disturbance to the vegetation on the Lydd Ranges.

4. Ribbon-development along the strand. The coastline from New Romney to Dungeness has been built over, chiefly with bungalows. Fortunately this growth has been contained, especially by the activities of the Dungeness Preservation Fund Committee (1931 - 37) and by the measures of the Town and Country Planning Act (from 1947).

5. Water reserves. The north side of Denge Beach is owned by the Folkestone & District Water Company. The area is colonised by open grass-heath and there is now little disturbance.

Conservation interests to defend the area against the above pressures are chiefly represented by two bodies: the Nature Conservancy Council and the Royal Society for the Protection of Birds. The Conservancy planned in 1954 to establish a National Nature Reserve over all the most important part of the beach (2), but negotiations were woefully protracted. In 1958 the Central Electricity Generating Board issued a Compulsory Purchase Order for the land for its first power-station, which the Conservancy opposed at a public inquiry in December of that year (2). The CEGB won the case, whereupon, on 24 November 1959, the proposed Dungeness National Nature Reserve was abandoned, although the undeveloped area remained a Site of Special Scientific Interest (3). For practical purposes, therefore, the conservation of the area rested in the hands of the RSPB.

The Royal Society for the Protection of Birds has owned land at Denge Beach since 1931 (2), and it gradually increased its holdings to administer a large area, 1,234 acres (499 hectares) centred on the Open Pits, by 1956 (3). More recently measures to promote ornithological diversity were sought by the digging of a large gravel-pit within the reserve, thus greatly increasing the area of open fresh water. This extraction, on land undisturbed except for some signs of old military activity, was carried out by the Amey Roadstone Corporation, and the RSPB has stated that the "income from the gravel royalties would be a useful addition to RSPB funds" (4). In fact, in the year ended 31 March 1974 alone, it

received £56,304 in mineral royalties (6). Digging began in 1970 and was completed in 1977, the resulting lake ironically being called the Burrowes Pit (4), named after Mr R. B. Burrowes who devoted most of his life and savings to the conservation of Denge Beach in its undisturbed state. The RSPB has, of course, created important wholly artificial habitats within some of its other reserves - the Scrape at Minsmere is an outstanding example - but the destruction by open-cast mining of a large and vital part of the shingle nature reserve must be viewed as an act of most questionable value to the ecology of the area. Amongst the worst of the apparent effects of the Burrowes Pit is the probable lowering of the water-table on the beach and Open Pits. This seems to be the most likely cause of the death of the Prunus scrub, formerly so rich in Usnea spp. and other epiphytes, with the loss of all its remarkable flora.

Gravel extraction at Denge Beach has now reached alarming proportions. The west side by Scotney Court has been excavated, and further development is actively being sought within the Ministry of Defence Ranges. Large pits have been created by Mixconcrete Aggregates Ltd. by Denge Marsh Farm. At present Amey Roadstone is excavating the whole area immediately to the north of the Open Pits on the "area of greatest ecological and physiographical interest" (2). The RSPB has sought planning permission to substantially enlarge its own pit and thus reduce still further the undisturbed part of its reserve, as well as risking more damage to the remaining vegetation by an additional lowering of the water-table. If any of Denge Beach is to be saved for the future the Nature Conservancy Council must consider negotiating at once with the remaining owners (especially the RSPB) for the establishment of a national nature reserve. In 1959 the Conservancy abandoned such plans because "repercussions of the power station on the remaining area shows conclusively that the future scientific interest will be too much reduced to qualify it for National Nature Reserve status" (3). The Council now admits that this view was mistaken, and remarks that the "construction of a nuclear power station has detracted little from this value either physiographically or biologically" (5, Vol. 1: 52). Thus the Conservancy should now feel able to consider adopting a more active role in order to try to halt further deterioration. Otherwise Denge Beach will soon be nothing more than an extensive series of gravel-pits, and its international scientific value lost for all time.

#### References:

1. KNIGHT, J. R. (Editor) 1977. The Stock Exchange Official Year-Book 1977 - 78. Skinner, Haywards Heath.
2. NATURE CONSERVANCY. 1958. Evidence of The Nature Conservancy for the Public Inquiry into the Proposed Nuclear Power Station at Dungeness, Kent, to be held at Lydd, New Romney, Kent, on 16 December 1958. Nature Conservancy, London.
3. NATURE CONSERVANCY. 1960. Report of The Nature Conservancy for the Year Ended 30th September, 1960. HMSO, London.
4. PICKUP, A. R. 1978. Industrial revolution for Dungeness. Birds R.S.P.B. Mag. 7 (2): 17 - 19.
5. RATCLIFFE, D. (A.) (Editor) 1977. A Nature Conservation Review. Cambridge University Press, Cambridge.
6. ROYAL SOCIETY FOR THE PROTECTION OF BIRDS. 1974. RSPB report & accounts, 1973 - 74. Birds R.S.P.B. Mag. 5 (5): 1 - 8 (separately paged from journal).

#### Note:

The views expressed here are those of the Bulletin Editor, and do not necessarily coincide with the official policy of the Society or any other body.

## Nominations for Vice-president, Officers and Council Members

Nominations for Vice-president for 1980-81, Officers for 1980 and Council Members for 1980-81 should be sent to the Secretary before 22 December 1979 on the form at the end of this Bulletin. No person may be nominated without their consent. Any number of nominations may be entered, but not more than one per position. Miss Burnet, Mr Coppins and Mr James retire and are not eligible for re-election as Council Members.

The membership should give particular consideration to the nomination for Vice-president. In previous years the Council have been responsible for this nomination, but now the Rules have been changed so that all members can put forward someone for this position. The Vice-president holds office for two years and then normally (subject to nomination by Council and election at an Annual General Meeting) succeeds to the position of President. Therefore the Vice-president is potentially the head of the Society.

## Mapping meeting 4 January 1980

A meeting of persons interested in mapping to discuss problems and policy will be held on Friday 4 January 1980 from 10.30 until 12.00 in the Education Section's Laboratory (off Whale Hall, ground floor), British Museum (Natural History), Cromwell Road, London SW7 5BD. Items for discussion should be sent to the Mapping Recorder, Dr M. R. D. Seaward, Postgraduate School in Environmental Science, The University, Bradford, West Yorkshire BD7 1DP, before the middle of December 1979 for inclusion on the agenda. Non-members are welcome.

## Annual General, Lecture and Exhibition Meeting 5 January 1980

The Annual General Meeting will be held at 10.30 on Saturday 5 January 1980 in the Demonstration Room in the new East Wing (ground floor) at the British Museum (Natural History), Cromwell Road, London SW7 5BD. The nearest LT Underground station is South Kensington, and Cromwell Place or the subway connects with the museum. It is hoped that all members will endeavour to attend.

### Agenda

1. Apologies for absence.
2. Minutes of the last Annual General Meeting.
3. Matters arising.
4. Reports of the Officers.
5. Proposal by Council: the annual subscription shall be £10 from 1 January 1981; the junior associate and family subscriptions shall be unchanged.
6. Place, dates and leaders of annual general, spring, summer and autumn meetings 1981.
7. Election of Auditor.
8. Election of three Members of Council.
9. Election of Officers.
10. Election of Vice-president.
11. Election of President (Council's nomination: Dr F. Rose)
12. Any other business.

J. R. LAUNDON  
Honorary Secretary

Following the Annual General Meeting there will be a slide show from 11.30 until 12.00 and an exhibition meeting from 12.00 until 12.30. Members are kindly requested to make a special effort to contribute exhibits of lichenological interest. Demonstrations should include a title and name of exhibitor.

The lecture meeting will continue in the afternoon in the same room. The meeting is entitled LICHEN CONSERVATION. Non-members are welcome. Please display the enclosed poster. The full programme is as follows:

- 10.30 Annual General Meeting.  
 11.30 Slides of 1979 field meetings (arranged by Dr O.L. Gilbert).  
 12.00 Exhibition Meeting.  
 12.30 Lunch. Members are kindly requested to make their own arrangements. The restaurants Barino (1 Harrington Road) and Daquise (20 Thurloe Street) are recommended.  
 14.00 Introduction to the lectures on LICHEN CONSERVATION (Chairman: F. H. Brightman).  
 14.05 Lecture. J. R. LAUNDON (British Museum (Natural History)): Churchyard conservation.  
 14.30 Lecture. F. ROSE (University of London): Lichens of parklands and pasture-woodlands and their conservation.  
 15.00 Tea interval (tea gratis).  
 15.30 Lecture. D. JACKSON HILL (University of Bristol): Lichen dyes, conservation and a practical policy.  
 16.00 Lecture. P. W. JAMES (British Museum (Natural History)): Oceanic habitats.  
 16.30 Summary and discussion.  
 17.00 Close.

#### Day excursion to the New Forest March 1980

A day excursion in the New Forest, Hampshire, will be held on Saturday 22 March 1980 under the leadership of Dr F. Rose, in conjunction with the Southampton Natural History Society. Meet at Brockenhurst Station at 11.10. Train leaves Waterloo, London, at 9.35 for Southampton, arriving at 10.42; change at Southampton for 10.47 Bournemouth train which arrives at Brockenhurst at 11.09. Mark Ash (SU 2407) and Red Shoot (SU 1808) Woods will be studied. Gum boots and packed lunch are essential and OS map 195 desirable. Please note that collecting will be restricted to the common lichens only. There are return trains from Brockenhurst at 23 & 39 minutes past each hour. Please check train times before departure.

#### Day excursion to Kent May 1980

The eighteenth annual "wall-tour" with the Kent Field Club (the first was in 1963) led by Mr F. H. Brightman and Mr J. R. Laundon will be held on Sunday 4 May 1980. All groups of plants will be studied on walls and other saxicolous habitats, such as churchyards, on the east side of the Isle of Thanet, Kent. Meet at Broadstairs Station (grid TR 391680) at 11.00. Bring packed lunch. Train leaves Victoria, London, at 9.10 to divide at Faversham, arriving at Broadstairs at 10.58. There are return trains at 43 & 18 past the hour. Please check train times before departure.

#### Field meeting in France, July 1980

See Bulletin 44: 3 (1979) for preliminary details. The full information for this meeting is still incomplete, but those intending to take part must inform Dr F. Rose, 36 St Mary's Road, Liss, Hampshire GU33 7AH, by 31 December 1979 as this will be the closing date for registration; the form at the end of Bulletin 44 may be used for this purpose. The provisional programme is as follows:

- Part one: lodging station biologique Avon-Fontainebleau. Arrival 3 July.  
 4 July: Trois Pignons (sandstones, heaths).  
 5 July: Gros Fouteau (forest reserve).  
 6 July: Vallée du Lunain (limestones).  
 Part two: lodging in Le Mans (7 July) then in Alençon (Orne). Departure 14 July.  
 7 July: Le Mans (arrival, reception, briefing).  
 8 July: Sillé le Guillaume (forest, sandstone cliffs), Vilaines la Juhel (open canopy woodland).  
 9 July: Ecouves Forest (heath, forest, rocks).  
 10 July: Saint-Léonard des Bois (Sarthe) (woods, stony slopes), Champfremont (Mayenne) (open vegetation).  
 11 July: Fresnaye sur Sarthe (limestone), Perseigne Forest (Sarthe) (woodland).  
 12 July: Mortain (rocks, open-canopy woodland).  
 13 July: Andaines (forest).

### Lichen courses 1980

DEVON. Slapton Ley Field Centre, Slapton, Kingsbridge, TQ7 2QP. 20 - 27 August 1980. Practical lichens. D. L. Hawksworth, assisted by F. S. Dobson.  
DYFED. Orierton Field Centre, Pembroke, SA71 5EZ. 23 - 30 July 1980. Lichens. F. S. Dobson.

NORTH YORKSHIRE. Malham Tarn Field Centre, Settle, BD24 9PU. 18 - 22 July 1980. Lichen weekend. M. R. D. Seaward.

SOMERSET. Leonard Wills Field Centre, Nettlecombe Court, Williton, Taunton, TA4 4HT. 19 - 21 September 1980. Hawksworth on lichens. D. L. Hawksworth.

SURREY. Juniper Hall Field Centre, Dorking, RH5 6DA. 6 - 8 June 1980. Lichens near London. F. S. Dobson.

TAYSIDE. Kindrogan Field Centre, Enochdhu, Blairgowrie. 20 - 27 August 1980. Lichens - identification and ecology. F. H. Brightman & Pauline B. Topham.

The wardens at the field centres will supply further details; members should ask for information regarding any bursaries and grants which may be available.

### Checklist out soon

The "Checklist of British lichen-forming, lichenicolous and allied fungi" by D. L. Hawksworth, P. W. James and B. J. Coppins is now at the printers for publication in The Lichenologist in February 1980. The manuscript list includes 1,700 species in 291 genera, with in addition 12 subspecies, 41 varieties and 12 forms. The species comprise 1470 lichenized fungi (i.e. lichens), 184 lichenicolous fungi (i.e. fungi growing on lichens) and 46 allied fungi. The publication will also include 54 new combinations, as well as other new names in press. Small amendments are expected to be made in proof which will doubtless affect these totals in their final form. It is expected that the checklist will run to about 70 pages and interleaved reprints will also be available.

### Lichenologists published

Part 2 of volume 11 of The Lichenologist was published on 20 June 1979 and part 3 of volume 11 on 31 October 1979. Any paid-up ordinary member for 1979 who did not receive both copies should inform the Assistant Treasurer, Mr P. W. Lambley, British Lichen Society, c/o Castle Museum, Norwich, NR1 3JU.

### Wanted to purchase

The Lichenologist 8 part 2 (1976). A reasonable sum will be paid for this part in good condition by Mr J. J. Heath, Keeper of Natural History, Colchester and Essex Museum, The Castle, Colchester, Essex. CO1 1TJ.

### Subscriptions

The 1980 subscription is due on 1 January and members should pay promptly in order to receive an uninterrupted supply of the Society's publications. The subscription is £7.00 for ordinary members, £1.00 for junior associate members and £0.25 for family members. The U.S. dollar rate is \$15.00 for ordinary members. Reading circle subscriptions are £1.00 per year. Subscriptions should be sent to the Assistant Treasurer, Mr P. W. Lambley, British Lichen Society, c/o Castle Museum, Norwich, NR1 3JU, United Kingdom, except for members living in North America, who should send theirs to the Regional Treasurer (North America), Dr J. W. Sheard, Department of Biology, University of Saskatchewan, Saskatoon, Saskatchewan S7N 0W0, Canada. Members may pay by Giro if they wish; the Society's number is 24 161 4007. Please note that acknowledgements are not sent unless requested because of postage costs.

### Lichen atlas in preparation

The preparation of a lichen atlas of the British Isles, compiled by M. R. D. Seaward, C. J. B. Hitch and P. W. James, is now in an advanced stage with some 190 maps fully prepared for the printers. Publication is expected in 1980. All members are gratefully thanked for their help in the mapping work which has made an atlas possible, and it is emphasised that the scheme is, of course, continuing, and all records should still be sent to the Mapping Recorder, Dr M. R. D. Seaward, Postgraduate School in Environmental Science, The University, Bradford, West Yorkshire BD7 1DP. The map showing numbers of species recorded for each ten-kilometre grid square which recently appeared in The Lichenologist 11 (3): 324 (1979) shows that numerous squares are still greatly underworked, and further records are therefore urgently needed.

### Inflation hits Bulletin

At the meeting of the Society's Council on 21 September 1979 it was decided that the price of the Bulletin should be increased from £0.25 to £0.50 post free forthwith, and that all available back numbers should also be sold at this price following an announcement in the Bulletin. The publication has remained at £0.25 since it was first put on sale in 1972, but with rampant inflation it is no longer possible for the Society to continue to sell it for this low price. Most persons receive the Bulletin free by virtue of their membership subscription, and, of course, this arrangement will continue.

### Binding the Bulletin

A title-page and index for Bulletin 36 - 45 are issued with this number for those who wish to keep their copies in a binding. This comprises two sheets of stiff card and a plastic slide binding spine three-quarters of an inch wide, obtainable from stationers and then cut to A4 size. Alternatively the Bulletin may be permanently bound by book-binders.

### Oliver Gilbert nominated as new Bulletin Editor

The Council of the Society have nominated Dr O. L. Gilbert, Department of Landscape Architecture, The University, Sheffield, S10 2TN, for the position of Bulletin Editor from January 1980. News and items of lichenological interest would be gratefully appreciated by Dr Gilbert. The column "literature on lichens" will continue to be compiled by Mr J. R. Laundon, Department of Botany, British Museum (Natural History), Cromwell Road, London SW7 5BD, who would appreciate reprints of papers for consideration for inclusion.

### Lichen books showroom

The Richmond Publishing Company have recently opened a showroom at their offices in Orchard Road, Richmond, Surrey. All the titles stocked by their botanical bookselling department are on display, including the largest selection of in-print lichenological titles in the United Kingdom. The showroom is open from 9.30 - 17.00 Mondays to Fridays without appointment, and on Saturdays by prior arrangement (phone: 01-876 1091).

### Lichen records for Warwickshire wanted

A "Fungus Flora of Warwickshire", including a section on lichens, is planned for publication during 1980. To ensure that the lichen section is as complete as possible, anyone who has made records of lichens in Warwickshire (V.C. 38), and who has not previously been contacted, is requested to send copies of their records to Dr D. C. Lindsay, EM Box 1380, London WC1V 6XX. At present, 55 genera and 140 species have been recorded recently from the vice-county and any additions will be gratefully received.

D. C. LINDSAY

Trees damaged by collectors on Costa Rica meeting

The International Lichenological Newsletter 12 (4): 1-3 (1979) reports that the tropical field symposium of the International Association for Lichenology held in Costa Rica from 27 December 1978 - 6 January 1979 ended in a particularly distressing manner. Angry homeowners in Monteverde demanded "recompensory payment for alleged trespass and tree damage caused by our activities." The newsletter publishes photographs showing tree boles with large chunks of bark removed, and remarks that in future "individuals should resist temptations to collect large samples from a limited number of similar trees. During group activities, a minimum number of duplicates should be collected and the group as a whole should be prepared to police itself ... collecting excessive quantities while participating in a large excursion should not be done." The article also remarks that collecting "may lead to tree injury if a cut is made to beneath the cork cambium" and that if a tree near habitations is aesthetically damaged "effort should be made to repair the injury." Although the article does not mention the outcome of the allegations, it is understood that significant compensation was paid by means of a financial levy on the participants.

New members

The following joined the Society between April and November 1979:

- Mr D. Aamlid, Botanisk Institutt, Postboks 12, N-5014 BERGEN-UNIVERSITET, Norway.  
Mr F. Ambrose, 11 Archer Close, MAIDENHEAD, Berkshire SL6 6LH.  
Mrs B. Benfield, Penspool Cottage, Plymtree, CULLOMPTON, Devon EX15 2JY.  
Dr F. Bento-Pereira, Instituto Botanico, Faculdade de Ciencias, 1294 LISBOA CODEX, Portugal.  
Mr M. M. Bleakney, 173 Markethill Road, PORTADOWN, Craigavon BT62 3SL.  
Miss A. Botnen, Botanisk Institutt, Postboks 12, N-5014 BERGEN-UNIVERSITET, Norway.  
Mr H. Brunborg, Botanisk Institutt, Postboks 12, N-5014 BERGEN-UNIVERSITET, Norway.  
Mr E. J. Burdon, 49 Franklands, Longton, PRESTON, Lancashire PR4 5WD.  
Mr R. G. Burn, Parkmill Field Studies Centre, Parkmill, Gower, SWANSEA, West Glamorgan.  
Mr S. N. Christensen, Ved Klosteret 10, S.V., 2100 Ø, Denmark.  
Mr P.-A. Esseen, Department of Ecological Botany, Umeå University, S-901 87 UMEÅ, Sweden.  
Mr P. D. Evans, 33 St George's Avenue, Peverell, PLYMOUTH, Devon PL2 3PW.  
Mr R. Goodinson, 3 Westfield Drive, WORKSOP, Nottinghamshire S81 0JS.  
Mr M. Gosling, 150 Palatine Road, BLACKPOOL, Lancashire FY1 4DS.  
Professor Dr W. Grüniger, Friedrich-Ebert-Str. 46, D-741 REUTLINGEN, Germany.  
Mr P. M. Holt, North View, South Heath, GREAT MISSENDEN, Buckinghamshire HP16 9QJ.  
Mr G. Kantvilas, Department of Botany, University of Tasmania, Box 252 C, G.P.O. HOBART, Tasmania, Australia.  
Mr M. Lindquist, Helge Källas Väg 15, 433 00 PARTILLE, Sweden.  
Mrs K. Lofkin, 131 Carrington Lane, SALE, Cheshire M33 5WJ.  
Mr M. Lynes, 5 Grange Close, Hatfield, DONCASTER, South Yorkshire.  
Mr A. W. McCurdy, 25 Almond Avenue, LEAMINGTON SPA, Warwickshire.  
Mr D. G. Mellor, 19 Walker Street, PAISLEY, Renfrewshire.  
Miss J. M. Pirie, 26 Cliftonville Court, NORTHAMPTON, NN1 5BY.  
Dr M. C. Porcel, Departamento Interfacultativo de Botánica, Facultad de Ciencias, Universidad de Granada, GRANADA, Spain.  
Mr C. I. Rose, Room 117, Department of Applied Biology, Chelsea College, Hortensia Road, LONDON SW10 0QX.  
Miss L. Skjolddal, Botanisk Institutt, Postboks 12, N-5014 BERGEN-UNIVERSITET, Norway.  
Mrs G. N. Stevens, Botany Department, University of Queensland, St Lucia 4067, BRISBANE, Queensland, Australia.  
Mr K. J. Thorpe, Department of Biology, College of St Mark & St John, Derriford Road, PLYMOUTH, PL6 8BH.  
Miss M. Wall, 1 Chetwode Close, WOKINGHAM, Berkshire.  
Miss S. D. Webster, Newnham College, CAMBRIDGE.  
Mr M. J. Wigginton, 140 Bankside, BANBURY, Oxfordshire.



### Change of title at the Revue

From 1 January 1980 the Revue Bryologique et Lichenologique changes its title to Cryptogamie Bryologie et Lichénologie. The publishers hope that the change will enable the "numerous editorial problems" connected with the old Revue to be overcome. The journal is available from 12 rue de Buffon, 75005 Paris, for 160F/190F outside France, per year. Members of the British Lichen Society can take it by joining the Reading Circle, which is administered by Dr D. H. Brown, Department of Botany, The University, Woodland Road, Bristol, B8S 1UG. The subscription is £1 a year, which also covers The Bryologist.

### Botanical research fund

The Botanical Research Fund is a small private trust fund which exists to aid individual research workers in botany. Grants, usually not in excess of £100, are awarded for specific items of expenditure connected with their work and are generally made to those who are not in receipt of any official funding to support their research. Applications, accompanied by the name of an appropriate referee, should be sent to the Secretary, Dr K. L. Alvin, 2 Little Gaynes Lane, Upminster, Essex RM14 2JP, from whom further information may also be obtained.

K. L. ALVIN

### Extracts - 4.

For previous parts of this series see Bulletin 24: 9 (1969), 30: 7 (1972) & 35: 8 (1974).

"ERRATUM Journal No. 27 1972 p. 38 4th line, should read 04CEPRTUWZ/05ABCDGKQR/11DELJ/12AB/12BC" Beds. Nat. 28: 57 (1975).

"The hotel was a famous 16th century coaching Inn, and once inside you will feel the character of this historic building around you. All rooms are without bath." Grand Metropolitan Hotels brochure Birds for All Seasons (1976).

"A marked variability in quantitative characters was found, inside each specimen and from specimen to specimen. Even the variance was often heterogeneous." Bull. Soc. phycol. Fr. 20: 12 (1975) reporting on the total conclusions of four authors' work on one species of alga.

"The 'Schwendenerian hypothesis,' ... No lichenist, however, has as yet given it any support; nor, judging from present appearances, is at all likely to do so ... Professor Schwendener ... in 1869 ... (concludes) ... This master is a fungus of the order Ascomycetes, a parasite which is accustomed to live upon the work of others; its slaves are green algae, which it has sought out, or indeed caught hold of, and forced into its service... Schwendener still endeavours to maintain ... this sensational "Romance of Lichenology," or the unnatural union between a captive Algal damsel and a tyrant Fungal master." CROMBIE, J. M. 1874. On the lichen-gonidia question. Pop. Sci. Rev. 13: 260 - 277.

"I am grateful to Mr Ray Desmond for opening up these archives to me at a time when his mind was elsewhere - in India." LEMAY, J. A. L. & ROUSSEAU, G. S. 1978. The Renaissance Man in the Eighteenth Century (p. 102). University of California, Los Angeles.

"On 31 August Mr P. W. Cribb observed on Hounslow Heath several painted ladies at rest; this was at 7.00, but by afternoon all had disappeared, no doubt part of a big migration." Lond. Nat. 57: 90 (1978).

"The first field-meeting of the Woolhope Club, which should have taken place on May 17th, was altogether prevented by the rain, which began early in the morning and continued, more or less, throughout the day. Only a few of the members mustered, and they speedily decided to stop at home, and reserve themselves for the next occasion." Trans. Woolhope Nat. Fld Club 1877: 1 (1878?).

## Lichens per gallon

In these days of fuel shortages and high energy costs, the fuel consumption of cars used for lichen field work can be of special importance. The Department of Energy now issues an Official List of Results of Fuel Consumption Tests on Passenger Cars in which comparative information about the fuel economy of most models available in Britain is presented. The list for October 1979 shows that at 56 miles per hour the three most economical cars are, firstly, the Suzuki SC100 at 56.5 miles per gallon (5.0 litres per 100 km at 90 km per hour), secondly the Triumph Spitfire 1500 with overdrive at 52.9 miles per gallon and thirdly the Renault 17TS at 52.3 miles per gallon. The three most uneconomical cars are all Rolls-Royce models with 15 - 18.1 miles to the gallon. Copies of the Fuel Consumption List are obtainable free from the Department of Energy, Information Division, Thames House South, Millbank, London SW1P 4QT. It is expected that up-dated editions will be issued at six-monthly intervals.

## Literature on lichens - 33

- AWASTHI, D. D. & AKHTAR, P. 1977. The genus Leptogium (sect. Mallotium) in India. Norw. J. Bot. 24: 59 - 71. (Taxonomic account of 13 species).
- BOWLER, P. A. & RUNDEL, P. W. 1978. The Ramalina farinacea complex in North America: chemical, ecological and morphological variation. Bryologist 81: 386 - 403. (The evidence ... is insufficient to warrant a species level taxonomy.)
- COPPINS, B. J. 1977. Field meetings, 1976. Drummond Castle, Crieff (Perthshire). Bot. Soc. Edinb. News 21: 5 - 8. (Account of the lichen flora of this old park.)
- COPPINS, B. (J.) 1978. Cryptogamic foray to Fife Ness 21st May 1977. Lichens. Bot. Soc. Edinb. News 24: 9 - 10. (Description of sea-shore lichen flora.)
- COPPINS, B. J. & JAMES, P. W. 1979. New or interesting British lichens IV. Lichenologist 11: 139 - 179. (Caloplaca ulcerosa Coppins & P. James, Lecanactis subabietina Coppins & P. James, L. umbrina Coppins & P. James, Lecanora quercicola Coppins & P. James, Lecidea carrollii Coppins & P. James, Micarea pycnidiphora Coppins & P. James, M. stipitata Coppins & P. James, Mycoblastus sterilis Coppins & P. James, Onegrapha corticola Coppins & P. James, O. pertusariicola Coppins & P. James, Phyllopsora rosei Coppins & P. James, and Sarcosagium campestre var. macrosporum Coppins & P. James are new taxa, whilst Micarea peliocarpa (Anzi) Coppins & R. Sant. and Pseudocyphellaria norvegica (Gyelnik) P. James are new combinations, and Lecidea erythrophaea Flörke and Rinodina efflorescens Malme are new British records.)
- DERUELLE, S. 1978. Étude comparée de la sensibilité de trois méthodes d'estimation de la pollution atmosphérique, et utilisant les lichens comme indicateurs biologiques, dans la région de Mantes (Yvelines). Revue bryol. lichén. II, 44: 429 - 441. (The Hawksworth-Rose scale is found to be the most sensitive method.)
- DOBSON, F. 1979. Lichens. An Illustrated Guide. Richmond Publishing Co., Richmond, Surrey. (£7.95) (About 450 species, most with descriptions, black and white photographs and distribution maps. Keys, glossary, etc., as well as some colour illustrations. Useful for both beginners and students.)
- EARLAND-BENNETT, P. M. 1979. New, rare or interesting Huntingdonshire lichens - 2. Rep. Huntingdon. Fauna Flora Soc. 31: 8 - 14. (Candelariella flavovirella (Nyl.) Lettau and C. heidelbergensis (Nyl.) Poelt (the last from Yorkshire only) are reported as new to Britain, and it is suggested that they may be "merely chemical races of C. vitellina and C. aurella respectively." Lecanora soralifera (Suza) Räsänen (L. intricata var. soralifera) and L. stenotropa Nyl. (L. polytropa var. stenotropa) are discussed and accorded species rank. Marked decline reported in the lichen flora of one wood.)
- EARLAND-BENNETT, P. M. 1979. A preliminary survey and assessment of the lichen flora of the Isle of Man. Proc. Isle Man nat. Hist. antiq. Soc. 8: 139 - 155. (269 taxa. List, notes and descriptive account.)

- GILBERT, O. L., WATLING, R. & COPPINS, B. J. 1979. Lichen ecology on St Kilda. Lichenologist 11: 191 - 202. (General account and list of 194 species with distributional data.)
- GUNNERBECK, E. & MOBERG, R. 1979. Lectotypification of Physconia, a generic name based on a misnamed type species - a new solution to an old problem. Mycotaxon 8: 307 - 317. (Physconia pulverulacea Moberg is described to replace the superfluous name P. pulverulenta, and the former is selected as the lectotype of Physconia Poelt.)
- HAWKSWORTH, D. L. 1979. ("1978") The identities of three species described in Verrucaria by Thomas Taylor. Nova Hedwigia 30: 549 - 556. (Species regarded as lichenicolous fungi. Pleospora peripherica (Tayl.) D. Hawksw. is a new combination.)
- HAWKSWORTH, D. L. 1979. The lichenicolous Hyphomycetes. Bull. Br. Mus. nat. Hist. (Bot) 6: 183 - 300. (Taxonomic account of 44 species in 23 genera. 60 excluded taxa discussed.)
- JAMES, P.W. 1979. Notes on Usnea rubiginea and U. rubicunda. Lichenologist 11: 322 - 323. (Usnea rubicunda Stirton is selected as the name for the reddish Usnea.)
- JAMES, P.W. & COPPINS, B. J. 1979. Key to British sterile crustose lichens with Trentepohlia as phycobiont. Lichenologist 11: 253 - 262. (21 species.)
- KARNEFELT, I. 1979. The brown fruticose species of Cetraria. Op. bot. Soc. bot. Lund 46. (World monograph of 14 species. Cetraria ericetorum and C. islandica are divided into subspecies. Distribution maps, photographs etc.)
- KROG, H. & SWINSCOW, T. D. V. 1979. Parmelia subgenus Hypotrachyna in east Africa. Norw. J. Bot. 26: 11 - 43. (Taxonomic account of 36 species. Includes critical discussion of some of the recent splitting of Parmelia s.l.)
- LÖFGREN, O. & TIBELL, L. 1979. Sphinctrina in Europe. Lichenologist 11: 109 - 137. (Monograph of five species, four of which occur in the British Isles.)
- MCCARTNEY, N. C. 1979 ("1978") Lichens from three archaeological sites, Somerset Island, N.W.T., Canada. Bryologist 81: 610 - 613. ("The uniqueness of archaeological sites in lichen studies is emphasized.")
- ROSE, F. & HARDING, P. T. 1978. Pasture-woodlands in lowland Britain and their importance for the conservation of the epiphytes and invertebrates associated with old trees. Chief Scientist Team Report 211. Nature Conservancy Council, Banbury. (£1.50 in microfiche from Research Reports Digest, Nature Conservancy Council, Information & Library Services, Calthorpe House, Calthorpe Street, Banbury, Oxfordshire OX16 8EX.)
- ROUX, C. 1978. Complement a l'etude ecologique et phytosociologique des peuplements lichéniques saxicoles-calciocoles du SE de la France. Bull. Mus. Hist. nat. Marseille 38: 65 - 186. (Lichen sociology on calcareous rocks in S.E. France.)
- RUNDEL, P. W. 1978. The ecological role of secondary lichen substances. Biochem. Syst. 6: 157 - 170. (Lichen "substances have significant ecological roles ... light-screen compounds, chemical weathering compounds, allelopathic compounds, (including antibiotic compounds), and anti-herbivore defense compounds.")
- SWINSCOW, T. D. V. & KROG, H. 1979. The fruticose species of Usnea subgenus Usnea in east Africa. Lichenologist 11: 207 - 252. (Taxonomic account of 23 species.)
- WEINBERG, E. D. (Editor) 1977. Microorganisms and Minerals. Dekker, New York. (Includes review by M. R. Tansey of the values of lichens as weathering and nitrogen fixation agents.)
- WILKINS, A. L. & JAMES, P. W. 1979. The chemistry of Pseudocyphellaria impressa s.l. in New Zealand. Lichenologist 11: 271 - 281. (45 substances from one lichen, separated by two dimensional chromatography.)

BULLETIN 45. Issued by the British Lichen Society, c/o Department of Botany, British Museum (Natural History), Cromwell Road, London SW7 5BD (telephone: 01-589 6323 ext. 552). Edited by J. R. Laundon, who is the author of all unsigned items. The views of the contributors are not necessarily those held by the British Lichen Society. Duplicated by F. H. Brown Ltd., Lithographic Printing Division, Helena Street Works, Burnley, Lancashire. December 1979

BRITISH LICHEN SOCIETY

EXPENDITURE & INCOME ACCOUNT FOR THE YEAR ENDING 31 DECEMBER 1978

1977	<u>Expenditure</u>	<u>1978</u>	<u>1977</u>	<u>Income</u>	<u>1978</u>
£		£	£		£
	Academic Press:				
2216	The Lichenologist	2743	2283	Members' subscriptions	2921
	Subscriptions paid to:		10	Reading Circle	7
26	Revue Bryol. et Lich. 26		654	Royalties - Symposium	175
7	American Bryologist 7		-	Lichenologist sales 1976&7	7.727
7	Council for Nature 7		9	Checklists	9
8	Biological Council 8		3	B.M.S. publications	1
-	Intern. Assoc. for		8	Donations	3
	Lichenology 22	70	5	Dr U.K. Duncan's book	6
243	Bulletin (less receipts)	285		(A.L. Smith's book	67
125	Stationery, typing, etc.	17	98	(Booklets	1
72	Postage	87		Interest received:	
10	Insurance	10	75	City of Cambridge bonds	63
5	Sundry small payments	56	47	Refund of tax on "	39
	Excess of income over		-	Welwyn Hatfield Bonds	17
573	expenditure	961	108	Bank	191
			2	Sundry receipts	2
		<u>£4229</u>			<u>£4229</u>

WORLD WILDLIFE FUND

	£		£
Payments authorised to		Grants received:	
1977	1335	1973	500
" in 1978	130	1974	500
Balance in hand	35	1976	500
	<u>£1500</u>		<u>£1500</u>

BALANCE SHEET AS AT 31 DECEMBER 1978

<u>Liabilities</u>	£	<u>Assets</u>	£
Subscriptions paid in advance	140	Investments:	
World Wildlife Fund	35	Welwyn Hatfield Council bond @ 10% p.a.	1500
Contingent liability: Stechert Macmillan	143	Cash at:	
General fund at 31/12/77 2286		National Westminster Bank	1915
Add excess of income over expenditure 961	3247	Canadian Imp. Bank	21
	<u>£3565</u>	National Giro	42
		Stocks - Pd	87
			<u>£3565</u>

S.N. Tallowin  
Hon. Treasurer

28 May 1979

Audited and in my opinion a correct record of the accounts of the British Lichen Society.

R.T. Ashby Hon. Auditor

13 July 1979

INDEX

Abbreviation: f.m. - field meeting

- Abbeyes, des, obituary, 38:4  
 Accounts, 37:10; 39:12; 41:12;  
 43:14; 45:12  
 Acid rain, 41:8  
 Acton, 37:8  
 Address list, 37:4; 38:15-24  
 Air mail, 37:5  
 Air pollution, 36:8; 41:8  
 Allorge obituary, 43:10  
 Alvin, 45:9  
 Annual General Meeting, 37:2-3;  
 39:3-4; 41:4-5; 43:4; 45:4-5  
 Archer, 42:3  
 Asahina obituary, 37:5  
 Ashby, 37:10; 39:12; 41:12;  
 43:14; 45:12  
 Association Francaise de  
 Lichenologie, 39:11  
 Atlas, 45:7  
  
 Back numbers Lichenologist,  
 39:9  
 Bailey, 36:10; 41:6  
 Banker's Order, 40:19  
 Beauty or blight?, 39:1-2  
 Bibliography, 38:7  
 Bicentenary Medal, 43:8  
 Bikes, 41:8  
 Binding Bulletin, 45:7  
 Blickling sphinx, 39:1  
 HM Bank Holiday closures,  
 43:10  
 EMS workshop, 43:7  
 Book review, 42:4-5  
 Books on lichens, 36:7; 37:6;  
 38:8; 40:9; 41:7; 42:4;  
 44:5  
 Books showroom, 45:7  
 Borders f.m., 39:5  
 Botanical Research Fund,  
 45:9  
 Bowen, 38:6  
 Bratt obituary, 42:6  
 Brightman, 41:5,6; 42:1;  
 43:9; 44:2,3  
 Brinklow, 44:4  
 British Bryological Society,  
 40:13  
 British lichen sites, 41:1-3  
 Buckinghamshire f.m., 39:4  
 Bulletin Editor, 44:1; 45:7  
  
Bulletin, price increase, 45:7  
 Buncle bust, 43:10  
 Buson, 44:7  
  
 Cain retires, 36:6  
 Canterbury f.m., 44:2  
 Cars as habitats, 36:10  
 Central Electricity Generating Board,  
 38:5; 45:2  
 Chapman, 42:1  
 Checklist, new, 44:1; 45:6  
 Chimeras, 37:1  
 Church, 38:10  
 Churches, survival, 43:1-3  
 Churchyard conservation, 44:3, 12  
 Churchyard f.m., 37:4  
 Cleden, 40:12  
 Collecting, ethics, 36:5-6; 45:8  
 Conservation Act 1975, 37:5  
 Conservation Committee report, 38:13;  
 40:18; 42:9; 44:10  
 Coppins, 39:5; 43:5-6  
 Cork tiles, 41:9-10  
 Costa Rica meeting, 45:8  
 Course on pollution monitors, 40:4  
 Crabbe, 38:10  
 Cram, 43:7  
 Crieff f.m., 44:2  
 Culture of soledia, 37:6  
 Curator, 44:4  
  
 Deed of covenant, 44:4,11  
 Denge Beach, 43:9; 45:1-3  
 Denmark, 38:9  
 Direct debiting, 44:4,11  
 Dobson, 40:5-8; 43:11  
 Duncan, 40:9  
 Dungeness, 43:9; 45:1-3  
 Dungeness Power-stations, 38:5; 45:2  
 Dutch elm disease, 38:8  
 Dyers threat, 40:1-2  
  
 Editor, resignation, 41:7; 44:1  
 Elms, 38:8  
 Ethics of collecting, 36:5-6; 45:8  
 Exhibition meeting, 36:6; 38:10; 40:10;  
 42:6; 44:7  
 Expenditure, etc., 37:10; 39:12; 41:12;  
 43:14; 45:12  
 Extracts, 45:9

- Farm nature reserves, 37:7
- Field meetings:
- Ambleside 39:5
  - Aylesbury, 39:4
  - Canterbury, 44:2
  - Crieff, 44:2
  - France, 43:6; 44:3; 45:5
  - Gregynog, 37:3
  - Kent, 37:4; 39:5; 43:5; 45:5
  - Kettering, 40:3
  - Lancaster, 38:2-3
  - Leek, 36:2
  - Loch Lomond, 41:6
  - London, 44:2
  - Louth, 39:4
  - Melrose, 39:5
  - Newbridge on Wye, 41:5-6
  - New Forest, 39:4; 41:5; 43:5; 45:5
  - Penrith, 43:5-6
  - St Andrews, 38:3
  - Spain, 37:4; 40:11-12; 41:8
  - Surrey, 41:5
  - Swaledale, 43:6
  - Tenerife, 40:3; 41:5; 43:9
  - Whitby, 41:7; 42:2
  - Worcester, 41:6
  - Yelverton, 43:5; 44:3
- Financial Statements, 37:10; 39:12; 41:12; 43:14; 45:12
- For sale, 42:5
- Fossil lichens, 36:4
- French f.m., 43:6; 44:3; 45:5
- French lichen society, 39:11
- Frey obituary, 39:11
- Fuel consumption list, 45:10
- Gilbert, 36:9; 38:2-3, 9; 40:4, 12, 14; 42:1, 4-5; 45:7
- Gold deposits, 36:4
- Gomm, 39:5
- Greenwood, 40:4
- Gregynog f.m., 37:3
- Guns, 37:8
- Hawksworth, 38:7; 39:4; 40:4; 42:5; 43:5, 7, 8
- Haynes, 38:13; 40:18; 42:9; 44:3, 10
- Henderson, 41:7, 9-10; 42:2; 43:9
- Herbarium catalogue, 42:5
- Hitch, 37:5; 38:13
- Honorary membership, 40:9
- Index of Ecological Continuity, 36:3
- Index of serial abbreviations, 42:7
- Industrial news, 38:5; 41:8
- Inflation hits Bulletin, 45:7
- International Association for Lichenology, 39:10; 45:8
- International Botanical Congress, 38:6; 43:7
- International Code, 44:5
- International Lichen Sites, 36:4; 41:1-3; 44:7
- International Mycological Congress, 37:6; 38:5; 39:6; 43:7
- Island, industrial, 38:5
- James, 37:1; 41:1-3, 7
- Jubilee quadrats, 41:9
- Kent f.m., 37:4; 39:5; 43:5; 45:5
- Kettering f.m., 40:3
- Killingholme Power-station, 38:5
- Kuopio meeting, 40:12
- Lake District f.m., 39:5
- Lancaster f.m., 38:2-3
- Landmarks in Saxon England, 42:1-2
- Laundon, 36:12; 37:2; 38:1, 14; 39:1, 3; 40:18; 41:4; 42:10; 43:1, 4; 44:10; 45:4
- Lecture & exhibition meeting, 36:6; 38:10; 40:10
- Lecture on symbiosis, 43:7
- Leek f.m., 36:2
- Letters to the Editor, 38:9; 39:9
- Lichen colonisation, 37:8
- Lichen courses, 37:5; 39:6; 41:7; 42:2; 43:7; 44:3; 45:6
- Lichen maps, 38:9
- Lichen photography, 40:5-8
- Lichen quilt, 36:1
- Lichen sites, 38:6; 41:1-3; 44:7
- Lichenologist, back number prices, 39:9
- Lichenologist, Editor, 41:7; 42:5
- Lichenologist, expansion, 43:8
- Lichenologist published, 36:7; 38:4; 39:11; 40:4; 41:7; 42:5; 43:7; 44:1; 45:6
- Lichenologist views, 42:5; 43:8
- Lichens as landmarks, 42:1-2
- Lichens in guns, 37:8
- Lichens on stone, 39:1-2
- Lichens per gallon, 45:10
- Lindsay, 45:7
- Literature on lichens, 36:10-11; 37:8-9; 38:11-12; 39:11; 40:15-17; 41:11; 42:7-9; 43:12-13; 44:8-9; 45:10-11
- Literature, references:
- Ahti, 43:12
  - Alstrup, 42:7
  - Alstrup & Hansen, 44:8
  - Alvin, 41:11
  - Anon, 37:8; 40:15
  - Armstrong, 36:10; 41:11
  - Arvidsson, 40:15; 44:8
  - Ascaso et al., 40:15
  - Asta & Roux, 42:7
  - Auld, 36:10
  - Awasthi, 40:15
  - Awasthi & Akhtar, 45:10

Literature references (continued)

Bailey, 37:8; 41:11; 44:8  
 Bailey & James, 42:7; 44:8  
 Barkman et al., 40:15  
 Bates, 40:15; 44:8  
 Beltman, 43:12  
 Bevan & Greenhalgh, 40:15  
 Bishop, et al., 38:11  
 Bousfield & Peat, 40:15  
 Bowen, 40:15  
 Bowler & Rundel, 38:11; 45:10  
 Brightman, 36:10  
 Brightman & Lambley, 43:12  
 Brodo, 43:12  
 Brodo & Hawksworth, 41:11  
 Brodo & Richardson, 44:8  
 Brown, 36:10  
 Brown & Hooker, 41:11  
 Brown, et al., 39:11  
  
 Catcheside, 37:8  
 Chambers, et al., 40:15  
 Chater, 42:7  
 Christiansen, 38:11  
 Clauzade & Houx, 40:15  
 Cleden, 43:12  
 Cooke, 42:7  
 Coppins, 42:7; 43:12; 45:10  
 Coppins & James, 44:8; 45:10  
 Coppins & Seaward, 40:15  
 Coppins & Vezda, 41:11  
 Crespo & Barreno, 38:11  
 Crittenden, 37:8  
 Culberson, C.F., 36:10  
 Culberson, C.F. & Culberson, W.L.,  
 42:8  
 Culberson, C.F. & Hale, 36:10  
 Culberson, C.F. & Johnson, 42:8  
 Culberson, C.F. et al., 41:11; 42:8  
 Culberson, W.L. & Culberson, C.F.,  
 40:15  
 Culberson, W.L. et al., 42:8; 43:12  
 Cullinane et al., 38:11  
  
 Degelius, 36:10; 44:8  
 Delzenne-Van Haluwyn, 40:15  
 Deruelle, 45:10  
 Desmond, 41:11  
 Dobson, 41:11; 45:10  
 Dobson & Hawksworth, 40:15  
 Donk, 40:15  
  
 Earland-Bennett, 38:11; 40:15; 41:11;  
 45:10  
 Esslinger, 37:8; 42:8  
 Esslinger & Ahti, 37:9  
  
 Farrar, 36:10; 40:15-16  
 Farrar & Smith, 40:16  
 Feuerer, 44:8

Filson, 40:16  
 Fisher & Proctor, 43:12  
 Fletcher, 36:10; 38:11; 44:8  
 Fletcher & Jones, 40:16  
 Follmann, 37:9; 42:8  
 Friedman & Galun, 36:10  
  
 Galloway, 38:11; 44:8  
 Garty & Galun, 37:9  
 Garty et al., 42:8  
 Gilbert, 36:10; 38:11; 40:16;  
 41:11; 42:8; 43:12  
 Gilbert & Coppins, 44:8  
 Gilbert et al., 43:12; 45:11  
 Golubkova et al., 44:8  
 Green & Snelgar, 42:8  
 Grimshaw, 40:16  
 Gunnerback & Moberg, 45:11  
  
 Hafellner & Poelt, 40:16  
 Hallbauer, 37:9  
 Hallbauer & Van Warmelo, 36:10  
 Hallbauer et al., 42:8  
 Hawksworth, 36:10; 37:9; 38:11;  
 40:16; 42:8; 43:12-13; 45:11  
 Hawksworth & Chater, 44:8  
 Hawksworth & Coppins, 40:16  
 Hawksworth & Dyko, 44:9  
 Hawksworth & Riedl, 41:11  
 Hawksworth & Rose, 40:16  
 Hawksworth & Seaward, 42:8  
 Hawksworth et al., 39:11  
 Henderson, 42:8  
 Henderson & Seaward, 40:16  
 Hertel, 36:11; 37:9; 41:11  
 Hill, 36:11  
 Hitch & Millbank, 37:9  
 Honogger, 43:13  
 Hooker & Brown, 41:11  
  
 Jaggard et al., 38:11  
 James, 38:11; 45:11  
 James & Coppins, 45:11  
 Jermy & Crabbe, 43:13  
 Jølle, 42:8  
 Jørgensen, 36:11; 42:8; 44:9  
  
 Karenlampi, 40:16  
 Kärnefelt, 45:11  
 Kauppi, 44:9  
 Kerrich et al., 43:13  
 Kershaw, 43:13  
 King & Lehmann, 36:11  
 Kopaczewskaja et al., 44:9  
 Kristinsson, 37:9; 38:11  
 Krog, 36:11; 40:16  
 Krog & James, 41:11  
 Krog & Swinscow, 38:11; 40:16;  
 42:8; 45:11  
 Kurokawa, 42:8

Literature, references (continued)

- Laaksovirta & Olkkonen, 42:8  
 Laaksovirta et al., 41:11  
 Lamb, 44:9  
 Lamb & Ward, 36:11  
 Larson, 40:16  
 Laundon, 40:16; 41:11; 44:9  
 LeBlanc et al., 40:16  
 Leuckert & Poelt, 44:9  
 Leuckert et al., 38:11  
 Lindsay, 44:9  
 Llimona et al., 40:16  
 Lloyd, 40:16  
 Löfgren & Tibell, 45:11  
  
 Mansfield, 40:16  
 Margot & Romain, 40:16  
 Marton & Galun, 40:17  
 Mayhead et al., 37:9  
 McCarthy, 42:8  
 McCartney, 45:10  
 McGrath, 44:9  
 Millbank, 36:11  
 Mitchell & Scannell, 43:13  
 Moberg, 42:9; 44:9  
 Moore, 40:17  
 Morris & Perring, 36:11  
 Muhle & LeBlanc, 40:17  
  
 Nieboer et al., 43:13  
 Nourish & Oliver, 38:11  
  
 O'Hare & Williams, 38:11  
 Østhaugen, 40:17  
 Østhaugen & James, 42:9  
 O'Sullivan & Mitchell, 37:9  
  
 Parmasto, 43:13  
 Pentecost, 42:9; 44:9  
 Peterken & Welch, 40:17  
 Poelt & Buschardt, 43:13  
 Poelt & Döbbeler, 38:12  
 Poelt & Sulzer, 38:12  
 Poelt & Vezda, 42:9  
 Prince, 38:11  
 Prince & Sommerville, 36:11  
 Proctor, 42:9  
 Puckett et al., 36:11  
 Pyatt, 40:17  
  
 Rackham, 37:9  
 Ramaut & Corvisier, 38:12  
 Ramkaer, 44:9  
 Ratcliffe, 43:13  
 Renner, 42:9  
 Richardson, B.A., 38:12  
 Richardson, D.H.S., 36:11  
 Riedl, 42:9  
 Ritschel, 42:9  
 Rogers, 42:9  
 Rose, 38:12; 44:9  
  
 Rose & Harding, 45:11  
 Roux, 45:11  
 Rundel, 43:13; 44:9; 45:11  
  
 Salisbury, 36:11; 38:12; 40:17  
 Scannell, 43:13  
 Seaward, 36:11; 37:9; 38:12; 40:17;  
 42:9; 43:13; 44:9  
 Seaward & Coppins, 43:13  
 Seaward et al., 44:9  
 Sheard, 42:9; 43:13  
 Sheard & James, 40:17  
 Smith, 38:12  
 Spöchting, 40:17  
 Somermaa, 36:11  
 Sutcliffe, 42:9  
 Swinscow & Krog, 38:12; 40:17; 44:9;  
 45:11  
  
 Thomson & Bird, 44:9  
 Tibell, 37:9; 44:9  
 Tomassini et al., 40:17  
 Tonsberg, 38:12  
 Türk & Wirth, 38:12  
  
 Vezda & Wirth, 40:17  
 Vick & Bevan, 40:17  
 Vickery, 38:12  
 Vobis, 42:9  
  
 Wainwright & Beckett, 37:9  
 Weinberg, 45:11  
 Wells et al., 40:17  
 Wilkins & James, 45:11  
 Wirth & Llimona, 36:11  
 Wirth & Türk, 38:12  
 Wit, de, 42:9  
 Wunder, 36:11  
  
 Yang & Lai, 38:12  
 Yarranton, 37:9  
 Yoshimura & Kurokawa, 42:9  
  
 Local collections conference, 40:4  
 Loch Lomond f.m., 41:6  
 London f.m., 44:2  
 Louth f.m., 39:4  
 Low-power photomicrography, 42:3  
  
Mammillaria busonii, 44:7  
 Mapping meeting, 37:2; 39:3; 41:3;  
 43:4; 45:4  
 Mapping scheme, 36:3; 37:5; 38:13;  
 39:6-8; 45:7  
 Martin obituary, 40:13  
 Medieval trees, 38:9  
 Members, list, 38:15-24  
 Membership comparisons, 40:13  
 Microbial Ecology Symposium, 43:6  
 Military victory, 40:14



- Millar, 40:13  
 Mobile lichens, 36:10  
 Monitors, 36:8  
 Morphotypes, 37:1  
 Mycotaxon, 36:9
- Nash, 39:6,10  
 National Vegetation Classification, 38:4  
 Nature Conservation Review, 42:4-5  
 NERC, 36:3  
 New Assistant Treasurer, 36:3  
 New Forest f.m., 39:4; 41:5; 43:5; 45:5  
 New members, 36:8; 37:8; 38:10; 40:14; 41:10; 42:6; 43:10; 44:6; 45:8  
 New Treasurer, 36:3  
 Nomination form, 37:11; 39:13; 41:13; 43:15; 45:19  
 Nominations, 37:2; 39:3; 41:3; 43:4; 45:4  
 Nordic Lichen Society, 39:11
- Obituaries:**  
 Abbayes, des, 38:4  
 Allorge, 43:10  
 Asahina, 37:5  
 Bratt, 42:6  
 Frey, 39:11  
 Martin, 40:13
- Oil, 38:5  
 Order form, 36:13; 37:12; 38:25; 39:14; 40:19; 41:14; 42:11; 43:16; 44:13; 45:19  
 Ordnance Survey maps, 38:7
- Para-phenylenediamine, 40:12; 44:5  
 Penrith, f.m., 43:5-6  
 Pentecost, 41:9  
 Perring, 44:6
- Photographs:**  
 Blickling sphinx, 39:1  
 Cork tiles, 41:9  
 Denge Beach, 45:1  
 James, 37:1  
Mammillaria busonii, 44:7  
 Pentecost, 41:9  
 Presidential confab, 42:1  
 Sarsen-stones, 38:1  
 Stoke-on-Trent, 43:11  
 Whiston church, 43:1
- Photography, 40:5-8; 42:3  
 Picnic at Castellfullit de Riubregós, 40:11-12  
 Planning application, 37:8  
 Plymouth Power-station, 38:5; 43:9  
 Pollution in Denmark, 38:9  
 Pollution literature, 43:9  
 Population growth halted, 36:4
- Preservation of countryside, 37:7  
 Preservation of trees, 37:6  
 Presidential confab, 42:1  
 Primal AC-55, 36:7  
 Provisional meetings, 36:3; 38:3; 40:2; 42:2; 44:2
- Quilt, 36:1
- Rackham, 39:9  
 Rail travel for bikes, 41:8  
 Recording in Scotland, 42:3  
 Regional experts, 38:8; 40:8  
 Reprinting articles, 38:6  
 Research Fellow, 37:5  
 Results of Lichenologist questionnaire, 43:8  
Revue bryol. lichen., 45:9  
 Rhein polluters, 41:8  
 Richardson, 39:11  
 Rose, 38:9-10; 39:4; 41:1-3, 5-6; 43:6  
 Royal Society, 36:7; 39:6  
 Royal Society grants, 39:6
- St Andrew's meeting, 38:3  
 Sarsens, 38:1-2  
 Seaward, 38:13; 39:4, 6-8  
 Second Mycological Congress, 37:6; 38:5; 39:6  
 Secretary's report, 36:12; 38:14; 40:18; 42:10; 44:10  
 Serial abbreviations, 42:7  
 Smith FRS, 36:7; 43:7  
 Society opposes gravel extraction, 43:9  
 Soil binder, 36:7  
Somerset Guardian/Standard, 37:8  
 Soredia, culture, 37:6  
 Spain f.m., 37:4; 40:11-12; 41:8  
 Spanish lichens for sale, 41:9-10  
 Specimens form, 42:7  
 Stampede, 43:11  
 Starkey, 40:1-2  
 Stoke postcards, 43:11-12  
 Subscription increase, 40:4; 41:3  
 Subscriptions, 38:3; 39:10; 42:3; 43:3; 44:4; 45:6  
 Subscriptions IAL, 39:10  
 Succulent?, 44:7  
 Sulphur dioxide, 38:6  
 Surrey f.m., 41:5  
 Surviving, 39:11  
 Swaledale f.m., 43:6  
 Swinscow, 36:5-6  
 Swiss keep moving, 43:9  
 Symposium, Microbial Ecology, 43:6

Tallowin, 37:7; 39:12; 41:12; 43:14;  
44:4; 45:12  
Tasmania, 40:13  
Tenerife f.m., 40:3; 41:5; 43:9  
Third International Mycological  
Congress, 43:7  
Thirteenth International Botanical  
Congress, 43:7  
Topham, 38:3; 41:8  
Trees damaged, 45:8  
Trees, preservation, 37:6; 39:9  
Uprooting lichens illegal, 36:1-2; 37:5  
Victoriana, 36:9  
Views on Lichenologist, 42:5  
Visual effects, 39:1-2  
Wales, mid. f.m., 41:5-6  
Wanted, 43:8; 44:4; 45:6  
Warwickshire lichens, 45:7  
Wasson, 43:11  
Whiston, 43:1  
Whitby f.m., 41:7; 42:2  
Wild Creatures Bill, 36:1-2; 37:5  
Wild Plants Act, 36:1-2; 37:5  
Worcester f.m., 41:6  
World Wildlife Fund, 38:3; 40:4  
Yelverton f.m., 43:5; 44:3