

**BRITISH
LICHEN SOCIETY
BULLETIN**

**No. 67
Winter 1990**

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Dept. of Botany
University of Nottingham*

FORTHCOMING BLS FIELD MEETINGS AND WORKSHOPS

CHICHESTER CHURCHYARDS

Leaders: Peter James and Francis Rose 3 - 10 April 1991

COUNTY MAYO AND COUNTY DONEGAL, IRELAND

Leaders: David Richardson and Howard Fox 6 - 20 July 1991

LICHENICOULOUS FUNGI

Organiser David Hawksworth 22 - 24 March 1991

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Annual rates except where indicated

(Dollar rates are two times the Sterling Rate)

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Application for Membership should be made to The Secretary, The British Lichen Society, The Natural History Museum, Cromwell Road, London SW7 5BD.

SUBMISSION DEADLINE

Please would intending contributors to the Summer 1991 issue of the Bulletin submit their copy to the editor by 28 March.

Cover design by Ceri Leigh

REINDEER LICHENS INJURED IN DENMARK

In the early eighties widespread injuries to reindeer lichens were observed for the first time in coastal lichen heathland in Denmark. This was believed to be a possible result of air pollution, nitrogen deposition in particular. The lichen mats were black at the edges and in some places large coherent areas of dead thalli were seen (Fig 1).

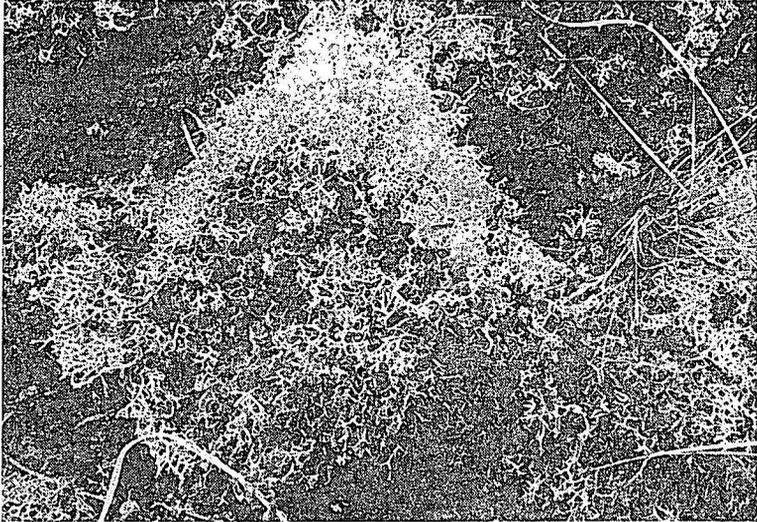


Fig 1 Injured thallus of *Cladonia portentosa* in coastal dune in North Jutland

As such extensive lichen injuries had apparently not been reported before, my colleague, Ib Johnsen, and I started a lichen heathland surveillance programme with permanent quadrats which included both injured and healthy populations. The project, which is financed by the Danish National Forest and Nature Agency, now includes 252 1 m x 1 m sample quadrats (Fig 2) situated in 15 localities from Northern Jutland to Schleswig in Germany (Fig 3). Once a year the quadrats are photographed in a standardised way (Fig 4) in order to document any vegetational changes and any change in the degree of lichen injury.

Danish heathland ecosystems occur on poor sandy soil and the vegetation is highly dependent on these conditions. Lichen rich heathland is particularly dependent on low nutrient status of the soil which results in reduced competition from dwarf shrubs and herbs. Heathland soils often contain considerable amounts of nitrogen, but mostly in organic forms hardly available to plants. Only ericaceous plants have gained access to this nitrogen pool by establishing symbioses with mycorrhizal fungi that are able to break down organic nitrogen compounds.

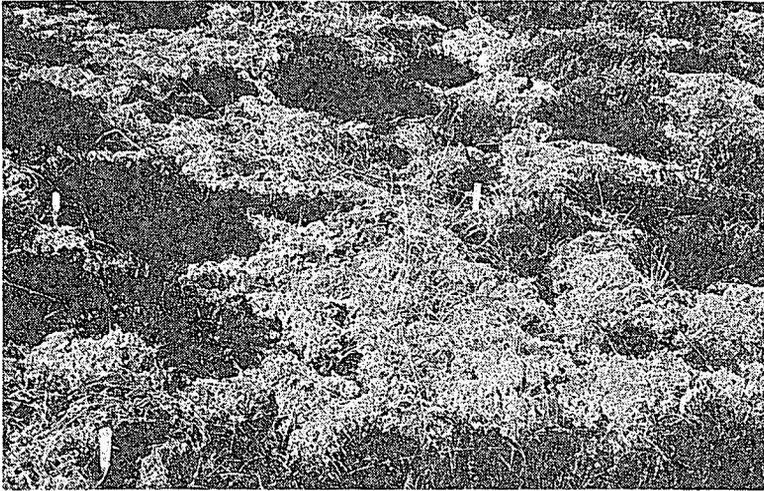


Fig 2 Sample quadrat with much reindeer lichen (the corners are marked with nylon sticks)



Fig 3 Localities with permanent plots in Denmark and Schleswig in Germany

The coastal dunes and heathlands are possibly to a large extent the result of harsh climatic conditions, whereas dunes and heaths further inland owe their existence to extensive sheep grazing, cutting of heather and stripping of turf in former days. During the past hundred years the majority of Danish heathlands have disappeared due to extensive tree planting, cultivation of heathland and reduced grazing pressure. When inland heaths are not managed they gradually develop into woodland.

Surveillance of lichen heathland in Denmark is important since nitrogen deposition resulting from air pollution is expected to impose significant change in the vegetation of these nutrient poor ecosystems. The fine balance between the herbs, dwarf shrubs and lichens of the heathland,

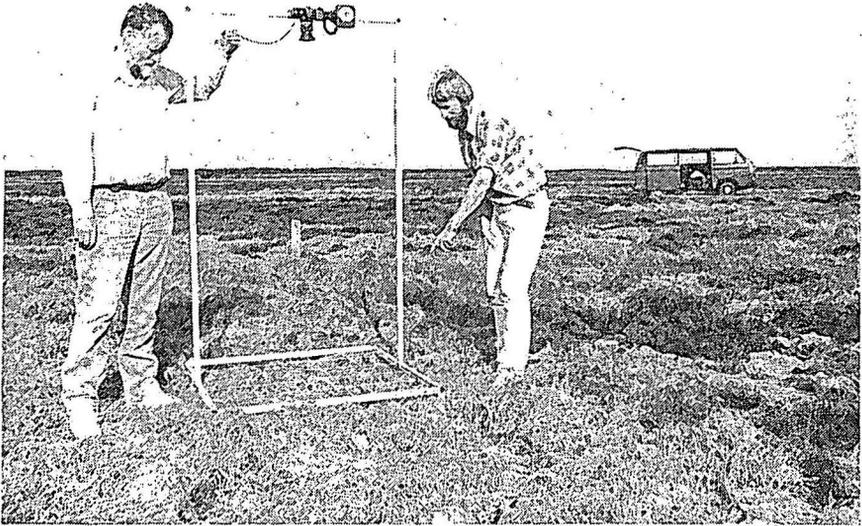


Fig 4 Photographing permanent plot with standardised photoframe

being dependent on the low availability of nitrogen, is changing due to the increased level of ammonia and nitrogen oxides in the air. The annual deposition of nitrogen is between 10 and 30 kg per hectare, and varies primarily according to distance from farms with livestock. The enrichment with nitrogen has led to increased growth of *Empetrum* and in many places *Deschampsia* and *Molinia* have become dominant. Such a development can be observed particularly in the Netherlands, where annual nitrogen deposition amounts to 60 kg per hectare.

Lichens as monitors of nitrogen deposition

A way to estimate nitrogen deposition to heathland is to analyse the total nitrogen content in reindeer lichens, as these efficiently absorb nitrogen from rain water. Nitrogen content in about 500 thalli of reindeer lichens from northern Europe, particularly Denmark, has been found to reflect the anticipated pattern of deposition (Fig 5).

The nitrogen content of terricolous lichens largely reflects the wet deposition, which shows only minor local variation. The dry deposition of ammonia, ammonium, nitrogen oxides and nitrate is, however, better monitored by using epiphytic lichens and it varies significantly according

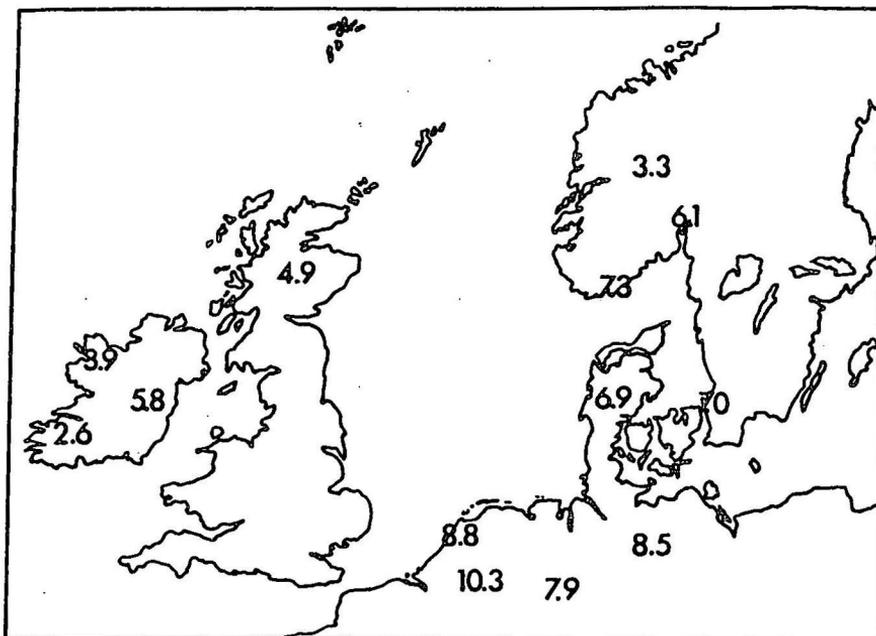


Fig 5 Nitrogen concentration in reindeer lichens (mg per g). The values are means based on different numbers of samples.

to level above the ground, exposure to wind etc. Epiphytic lichens have been used to investigate the pattern of deposition of nitrogen compounds to forest stands in Denmark.

Results

The standardised photos of the permanent quadrats can be analysed by conventional methods of cover estimation or by electronic image processing. The preliminary results show that vegetation changes, e.g. reduction in the cover of reindeer lichens seem to be faster in regions of intensive farming. No acceptable explanation of the blackening syndrome of the reindeer lichens has yet been found. Terrestrial communities rich in lichens are still abundant in Denmark but the cover of lichens has been significantly reduced in recent years particularly on inland localities. A similar development, again most probably due to eutrophication, has taken place in Germany and the Netherlands. Even in the Alps the cover and occurrence of reindeer lichens have diminished in recent years. Similar trends may be observed in the UK.

Ulrik Søchting
 Institut for Sporeplanter
 Copenhagen

NOMINATIONS REQUIRED FOR COUNCIL MEMBERS

Nominations for members of the Council for the period 1991-1992 should be sent in writing to the Secretary, Dr O W Purvis, Dept of Botany, The Natural History Museum, Cromwell Road, London SW7 5BD, before 21 December 1990, please. No person may be nominated without their consent. Mr T Duke, Dr D J Galloway and Dr F Rose retire from Council and are not eligible for re-election as Council members.

JANUARY MEETINGS

Council Meeting

Council will meet on the afternoon of Friday 4 January 1991 at 14.00 in the Council Room of the Royal Entomological Society of London, 41 Queen's Gate, London, SW7 5HU. Please let the Secretary have any items that you wish Council to discuss by Friday 28 December 1990.

Evening buffet/book sale/slide show

This event will be held on the evening of Friday 4 January 1991 between 18.00 and 21.00 in the Meeting Room of the Royal Entomological Society of London, 41 Queen's Gate, London, SW7 5HU. The buffet will cost £9.00 which will include one glass of wine. The book sale this year will be restricted to texts of a lichenological nature and will allow more time to show slides and for general conversation. Members are invited to bring 12 slides on their favourite lichen habitat, but please bring only lichen texts. All sales will be split on a 50:50 basis between the vendor and the Society. If you are unable to attend but have items for sale, please contact either Frank Brightman or Mark Seaward who will be the auctioneers. Unsold items will be auctioned the following day after the AGM.

Please complete the enclosed tear-off form and send your cheque for £9.00 (payable to "The British Lichen Society") to Dr O W Purvis, Department of Botany, the Natural History Museum, Cromwell Road, London SW7 5BD before Friday 28 December, so that arrangements for catering can be made.

Annual General Meeting/Exhibitions/Lecture Meeting

The Annual General Meeting will be held in the Demonstration Room of the Department of Palaeontology (ground floor), The Natural History Museum, Cromwell Road, London SW7 5BD, at 10.30 am on Saturday 5 January 1991. The Museum opens to the public at 10.00 am. Following the AGM there will be the usual exhibitions, to which members are invited to contribute. Please bring along your exhibits and help to make it a success. There are no formal arrangements for lunch, though members may eat in

the new Museum Restaurant, entrance on the ground floor between 'Creepy Crawlies' and 'Living Dinosaur' exhibitions - follow signs from Central Hall; alternatively there are numerous restaurants, pubs, etc, in South Kensington. The afternoon will be devoted to a lecture meeting on ecology and ecophysiology.

Programme

10.00 Museum opens to public.
10.30 Annual General Meeting.

AGENDA

- 1 Apologies for absence
- 2 Minutes of Annual General Meeting 6 January 1990
- 3 Matters arising
- 4 Officers' reports
- 5 Meetings 1989-1990
- 6 Election of members of Council
- 7 Any other business
- 8 Date and place of next AGM

11.30 Coffee and Exhibition Meeting
12.00 Lunch
14.00 Lecture Meeting
17.00 Close

Lecture Meeting: 'Ecology and Ecophysiology of Lichens'

14.00-14.25 Lichens & Soil Stabilisation (Mr R W Alexander)
14.25-14.50 Ecophysiology of *Lichina* (Professor J A Raven)
14.50-15.15 Graveyard Surveys (Mr T W Chester)
15.15-15.45 Tea
15.45-16.05 Some Woodlands in Co Fermanagh, Northern Ireland
(Mrs A O'Dare)
16.05-16.30 Growing Lichen Mycobionts in Culture (Dr P D Crittenden)
16.30-16.55 Introduction to Clare Island and Glen Veagh National Park
(Professor D H S Richardson)

CONSERVATION NEWS 4

In the *BLS Bulletin* 65, I outlined how the Conservation Committee would be seeking to satisfy the Nature Conservancy Council's need for information on certain habitats, in spite of the worsening financial climate. This Society has run various kinds of taxonomic workshop meetings over the years; the Conservation Committee has increasingly seen the need for equivalent field meetings to assist the BLS membership in recording for conservation purposes. I am happy to be able to comment, from my vantage point as Conservation Officer, on the Society's first workshop in coastal lichen

surveying (see preamble on p30 of *Bulletin 66*). This took place from 31 August to 2 September 1990, organised logistically by Pat Wolseley and taxonomically by Peter James. The meeting, in what was once Pembrokeshire, was attended by 10 further folk, with both the Nature Conservancy Council and the National Trust participating.

Lesson 1, I felt, was the essential need for field workers to have a sound knowledge of the species in their area of study. Accurate identification is the foundation stone for field survey work - no new concept for the BLS, but one that may be increasingly hard to sustain in years ahead as taxonomic training disappears from the higher education syllabus. (We will probably each need an electron microscope to handle the new British Lichen Flora . . . but that is a different story.)

Lesson 2 was the use of a short list of some 71 indicator species prepared by Peter James. The list is intended to provide a measure of species richness, and as a guide for whether a surveyed station has potential for further floristic or ecological study (we cannot assume that all field recorders will have the status of Lichen Boss, and in any case large and complex sites cannot be surveyed throughout with equal thoroughness). Lists of this kind must be drawn up rather subjectively but this is no defect when they are employed for guidance rather than for any precise statistical manipulation. We now have to explore how far this list needs to be modified to take account of regional floristic variation - if we were to find *Sclerophyton circumscriptum* in Shetland we would be very happy little lichenologists indeed (though we were happy enough in Dyfed).

Community identification, the logical next step, is still to be tested. The lichen communities present at each site will be identified, using the criteria described by James, Hawksworth & Rose (1977) in *Lichen Ecology*, (ed by MR D Seaward) 295-413. Academic Press, London. In practice some stands will not match the community descriptions exactly. This may be because they are intermediates or variants - phytosociologists are well aware that floristic communities are in fact no more than very frequently recurring groupings, and do not possess the 'reality' of the species themselves. Additionally we may have found a variant that is poor in species - the shortlist of indicator species will come to our rescue here. In the vast majority of cases however the principal communities (such as those typified by *Fulgensia fulgens*, or those of the dry sheltered rock faces, or the zones close to the sea) can be recognised without worry.

The final data sets and site descriptions will meet the requirements of NCC and will also help the National Trust and other site owners in pointing to specially valuable land that they hold - the assessments being on a national

scale, encompassing England, Wales and Scotland in one broad perspective. The information will be particularly useful when it can be used by NCC to strengthen its practical conservation arm at a time when there is a danger of nature conservation being transformed into some kind of exercise in landscape management.

All in all, I felt that the workshop was a very valuable introduction to the surveys that BLS members will be carrying out in the near future, and future workshops will build on the success of this initial enterprise. The BLS Conservation Committee will watch further developments with great interest and we will report progress to the Society.

Kery Dalby

COASTAL LICHEN SURVEY UPDATE

The coastal lichen survey is underway following the desktop survey of 525 sites in the British Isles, and anyone interested in participating should contact PAW at the NHM. Site recording forms and maps are an essential prerequisite of this survey in which we hope to locate lichen communities and rare species and to mark locations visited in what are often vast areas of uncharted rocky coast! Further workshops will be organised in different regions, with a special emphasis on Scotland (with over 300 sites) where there has also been a very good response to the coastal survey with additional sites suggested by regional NCC staff. Thanks to all those people who responded with site corrections and new information: it will all be incorporated in the next document. In collaboration with NCC (newly designated regions of England, Scotland and Wales) and National Trust we would like to cover many of the 220 SSSI's and NT rocky coastal sites. For surveyors we are hoping to provide maps and survey forms of a majority of sites, together with a revised version of the maritime lichen community descriptions in James, Hawksworth and Rose 1977 including a key to these, and a bibliography to enable you to find the relevant literature for your sites.

Please inform us of sites included in the survey that you are able to visit. We have applied for WWF funding* towards travel and subsistence for all BLS members taking part in the survey, but at the moment of writing have not heard the result.

Pat Wolseley and Peter James

* I have heard that this application was successful (ed).

THE MARITIME LICHEN WORKSHOP IN PEMBROKESHIRE

Friday 31 August - Sunday 2 September 1990

Those attending: Peter James, Pat Wolseley, Barbara Benfield, Claire and Kery Dalby, Trevor Duke, Elinor Gwynn (NT), Peter Jackson (NT), Peter Lambley, Sandy O'Dare, Ken Sandell and Mary Scruby (NT).

*Sites visited: 31.08.90 - Strumble Head, (SM/89-41-)
01.09.90 - Stackpole, Barafundle Bay, (SR/99-95-)
Stackpole Warren, (SR/98-94-)
02.09.90 - Wooltack Point, Martin's Haven, (SM/75-09-).*

The Pembroke coast was an excellent choice from which to run the first maritime lichen workshop. Pat Wolseley used her own home, Albro Castle, at St. Dogmaels, Cardigan, as the base, and organised a most successful and friendly weekend. She had described Albro Castle as an old workhouse in "pristine workhouse condition". Curiosity whetted, we discovered exactly that - a wonderful, unaltered, early 19th century stone-built workhouse, mellow in the autumn light, around a flagged courtyard, all dappled with late summer grasses, flowers and berries, butterflies and birds.

Of those staying at Albro, we were accommodated in the women's dormitory or men's dormitory, with the 'bridal suite' for Claire and Kery Dalby, which also doubled as the dining room, the lecture theatre and the laboratory.

Peter James, invigorated by his recent retirement, worked very hard and was most instructive both in the field and at his evening talks, illustrated by slides. We met at Strumble Head near Fishguard, an acid rock headland. This site is rich in maritime lichens, having a good variety of habitats, from well-exposed outcrops and cliffs, to sheltered, sunny rock faces, low sloping outcrops among short turf, deeply shaded crevices and underhangs. Of the more unusual and interesting lichens there was *Herteliana taylorii*, (*Lecidea taylorii*), recorded on wet rocks in seepage tracks; a white, crustose thallus, slightly waxy in texture, with rather unevenly scattered sessile black fruits with thick, rounded margins. Also among the damp vertical crevices of rock forming small crags and sheltered pockets, was recorded *Bacidia scopulicola* together with *Lecania hutchinsiae* (*Catillaria littorella*). Both *Solenopsis holophaea* and *S. vulturiensis* were also found in these moist, shaded crevices.

On the sunny, smoother faces of the rock outcrops lower down and beside a path, were mosaics of *Lecanora praepostera*, *L. gangaleoides*, *Lecidella subincongrua* and *Buellia subdisciformis*.

The next morning we set off for Stackpole with limestone cliffs, outcrops and dune systems. It was a beautiful day; the sun shone brightly and the sea was the colour of aquamarine. We had been informed by Peter James at the previous evening's lecture that there were fewer calcareous species that were strictly coastal compared to those on acid rocks. So for the most part the lichens recorded were typical of a good limestone site, with only a few notable exceptions. *Fulgensia fulgens* was found growing among very short turf; this was quite extensive and healthy material with some plants fertile. The thin soils among the rock outcrops supported *Psora lurida*, *P. decipiens*, *Placidiopsis custanii*, *Agonimia tristicula*, *Collema tenax*, *Leptogium schraderi* and *Catapyrenium squamulosum*. The hard limestone outcrops above Barafundle Bay carried quite a varied flora, from the abundant *Caloplaca flavescens*, *C. ochracea*, *C. dalmatica*, (useful to have these two species growing together, as they can at times present a problem to distinguish one from another) to the black fruited, thickly pruinose discs of *C. alociza*.

Also of interest were *Gyalecta jenensis*, *Petractis clausa*, *Clauzadea metzleri*, *Dermatocarpon miniatum*, *Solenopsora candicans* and *Squamarina crassa*, the latter frequent on horizontal rock fissures and cracks. Some fine material of *Placynthium subradiatum*, in characteristic marginal arcs, was found on the vertical face of this hard limestone together with *P. nigrum* and *P. garovaglii*. Also here on the more shaded vertical sides were quite widespread colonies of the small-lobed *Collema fragile*; the lobes very convex, olive-green, and slightly pubescent at the tips.

We dined that evening at The Salutation Inn, joined by various other family members and had a very jolly time before returning to Albro Castle for a further talk from Peter James, for which all but one of the members attending managed to stay awake!

The last day, Sunday, was again a fine bright day. The destination was Wooltack Point, Martin's Haven, a small peninsula that had at one time been walled off as a deer park. Here, as at Strumble Head, was a wide variety of habitats, the acid rocks around the various bays and cliffs all well colonized by lichens. This is a very rich site with *Ramalina polymorpha* growing on a single prominent boulder, although it is quite frequent on nearby Skomer Island. *Chiodecton albidum* is also found on the sheltered cliff-side outcrops of Martin's Haven. Both *Roccella fuciformis* and *R. phycopsis* occur on the shaded vertical cliffs.

Aspicilia epiglypta occurred on low sunny rock outcrops together with beautiful specimens of *Lecanora subcarnea*, the latter having a soft, creamy-beige thallus with a paler prothallus, the large fruits, with pale, pruinose

discs and in-rolled margins, concolorous with the thallus. Both these species, together with *Lecidella subincongrua*, prefer sites of slight nutrient enrichment.

The common *Pertusaria pseudocorallina* was here found fertile, the verrucae looking similar to those of *P. pertusa* (this species was called *P. microstictica* when fertile). Another unusual form of a more common lichen was *Aspicilia cinerea* agg., growing in a form similar to that seen at Dounan Bay in western Galloway by the BLS meeting in spring, 1989 (Coppins, B J and Gilbert, O L (1990) *Lichenologist* 22(2): 183-190), and described as having "abundant robust pappilose clusters towards the centre of its thalli". This form could well be a feature of maritime conditions. Other crustose species recorded on these sunny, sheltered rocks included *Rinodina luridescens*, *R. subglaucescens* and *Pertusaria excludens*.

During his evening talks, Peter James had attempted to explain why some maritime sites were richer than others, the key factors being the rock type, climate, degree of exposure and resulting variation in habitat being key factors. By the end of the weekend we felt that a lot had been gained from this intensive study of some prime coastal sites in Pembrokeshire.

Sandy O'Dare

A LA RECHERCHE DES LICHENS PERDUS: JARDIN DU LUXEMBOURG 1990

A visit to Paris in July of this year afforded me the opportunity to re-examine, in company with Mme M A Letrouit-Galinou, the trees in the Jardin du Luxembourg which in April 1986 (see *BLS Bulletin* 59: 23) had proved totally devoid of epiphytic lichens. Quelle surprise! A detailed examination of most of the mature trees furnished us with a list of 10 species which had successfully colonised their trunks for the first time since Nylander's report of their disappearance nearly 100 years ago (*Les Lichens des Environs de Paris*, 1896). Our list included *Parmelia sulcata*, *Hypogymnia physodes*, *Physcia adscendens*, *P. tenella*, *Phaeophyscia orbicularis* and *Xanthoria parietina*, many found on the bases of a variety of trees, *Aesculus*, *Betula*, *Quercus*, *Ginkgo*, *Acer* and *Tilia*, but in the case of *Fraxinus*, covering more extensive areas of the trunk as a whole.



News of this gratifying discovery was enthusiastically seized upon by the French press and other media, even the august *Le Monde* noted our exploits. However, the reporting was variable - one article credited us with the discovery of "discrets parasites arboricoles n'avaient jamais plus été observés dans la capitale"! We will continue to monitor this site made famous by Nylander's discovery.

Mark Seaward

Mme Letrouit - Galinov Examining epiphytic lichens on a tree in the Jardin du Luxembourg

COUNTRY DIARY: LINCOLNSHIRE

I had a disturbed night, which is often the case before a lichen expedition I've been looking forward to. By 7 am I was driving along empty roads anxiously listening to the weather forecast as the sky looked threatening. My destination was the chalk of the Lincolnshire Wolds, a large area to cover in a day, but preparatory work had identified a number of sites that were SSSI's or nature reserves; most of the rest is under barley. As I left the motorway and worked down through A, B and C class roads the countryside got more undulating and dry valleys started to appear.

I was glad to meet a farmer at the first site as it is more relaxing botanising with permission rather than looking over ones shoulder at every passing Landrover. He said I was too early for the orchids, in between times in fact, but agreed that I'd be doing no one any harm in examining a long steep bank of older grassland. I walked happily along terracettes in the sunshine, listening to a cuckoo and pocketing the occasional chalk fragment if prior inspection had shown it to have any black dots. The only area with potential

was a rabbit warren and, even here, there were no terricolous species or flints, just rather mobile chalk nodules some of which were red like pieces of brick. My haul of eighteen stones took an hour to collect and probably represented about 8 species, but in the field I could only recognise *Verrucaria muralis*, *V. nigrescens* and *Petractis clausa*.

As the weather was holding up I drove on a few miles to a disused quarry and, walking past some stern notices, told myself that membership of one County Trust gave reciprocal right to visit the reserves of those in adjacent counties. At this site the problem was too much exposed chalk; piles of it on the floor, slopes of it round the sides and faces of it above the scree. Few lichens looked well developed, most rock surfaces being covered with a dark indeterminate scurf. Past experience told me I wouldn't find much here, it was all too recent and I momentarily hankered for the maritime chalk of Dorset. Even so, it took till lunchtime to be satisfied every habitat had been sampled and that no *Veizdaea* lurked on the mossy path. I rarely get upset over disappointing sites as I go to find out what is there rather than to hunt for rarities though sometimes the following lines of poetry pulse through my head, I have no idea who wrote them:

Not every sea has pearls,
Not every branch will flower,
Nor the nightingale sing thereon.

A pub lunch, mostly spent poring over the map, left me physically and mentally refreshed. I headed for another disused quarry, it was very like the last, then for a small patch of downland at Red Hill. The best site here was, predictably, the over-steepened banks of an old chalk pit where I found *Leptogium schraderi*, more *Petractis* and *Polyblastia dermatodes*. A shower of rain had dampened the grass so I brought into use a carrier-bag to kneel on whenever soil needed scanning through a lens. Consolidated alkaline soil beside paths is always worth spending time on; I was rewarded with *Steinia geophana* and terricolous *Thelidium microcarpum*. It can be tiring getting up and down off your knees fifty times in an hour, so, well satisfied, I headed for the teashops in Louth. Here I learnt from a booklet that Red Hill is composed of a lower red chalk which explained the absence of flints and why some of the chalk fragments had looked like pieces of brick.

I left the last site till 6 pm having been warned it was very private. So, donning a tweed cap of the type favoured by land owners I strode past the "Strictly No Entry" notices and descended into yet another disused quarry, this time one full of rabbits which I hoped nobody had arranged to shoot that evening. This was very different from the previous two as it had a mossy

floor on which were growing large populations of *Collema texax*, *Leptogium biatorinum* and *Polyblastia gelatinosa*: well worth the risk. Large boulders of decomposing chalk used as bird perches helped extend the list towards 20 and I started to enjoy the dramatic scene of derelict buildings and abandoned machinery. A thorough search round sheets of corrugated iron lying on the ground failed to turn up the hoped for *Veizdaea leprosa*. By 8 pm I felt I had done the site justice and I hoped the same for the Wolds. I doubt if I shall be back; the area provided its moments, but there is a lot of unworked chalk elsewhere.

Oliver Gilbert

CONSERVING CHURCHYARD LICHENS

A phone call by a distressed resident of Middleton (near Pickering on the A170) sent me hot-wheels down to the church. "Do come quickly, they're scraping all the lichen off the tower and I remember you saying at the Seminar how special they were".

Like Tom Chester and others I am surveying North Yorks churchyards as part of the County Trust's participation in the Diocesan Churchyard Conservation Scheme. Middleton particularly concerned me since the north face of the tower was covered from top to bottom with *Ramalina siliquosa*, each block bearing a dozen or more plants. I wonder whether the sheer scale of colonisation by a *Ramalina* would make this church unique in lowland Britain.

When I arrived at the site, all but about 8 sq ft had gone. The workman was persuaded to cease work and sit in his cab while I sped to the building contractors. From there, a phone call to the architect enabled the remaining patch to be left as an indication of its former glory. However, the west face which was repointed a number of years ago is already sprouting, while nearby headstones resemble vertical forest land in miniature.

There are some very useful avenues of contact to be made by those surveying churchyards insofar as rare species are concerned. My reports always include, apart from the species list, comments on conservation if required together with a description of the state of preservation of the church fabric. These reports accompany the vascular plant list and conservation recommendations for a mowing regime which are sent to the incumbent. More importantly I have made contact with the Diocesan

Surveyors who are responsible for the upkeep of the properties and who have shown great interest in receiving copies of the lichen surveys. I gather that, where appropriate, extracts are included in their own recommendations and reports.

At one site in particular, at Kilham, I had stressed the protective nature of the lichen growth (which included *R. siliquosa*) and indicated where specific examples could be found of smoothly concave weathering and erosion in between lichen plants, which thus stood upon raised prominences. The architect concerned wrote to say that he would be discussing my report with the vicar, the Appeals Committee and the mason. Success! Trumpets sound forth!

All of this brings me to the regular confrontation between the lichen conservationist and those who would drench everything with masonry biocide on the basis that those nasty horrid blotches demolish stonework. What I would like to have available is something to allay the misconceptions of the 'spray and scrape brigade' which could also serve to instruct the mason and/or architect. The following then is an attempt to produce such a leaflet.

Lichens - for and against

- 1 Lichens do no harm, indeed they give memorials a pleasing, venerable appearance Extract from a British Lichen Society leaflet.
- 2 The very minor contribution by lichens to the cycle of rock > sand > sediment is on a geological rather than an historical timescale. Weathering is the real culprit.
- 3 It is true that in some crustose species, the fungal hyphae (threads) may penetrate a millimetre or so below the rock surface. This tends to consolidate friable surfaces and the plant itself acts as a shield to protect the substrate from the adverse effects of acid rain. The shielding effect can be seen to be quite dramatic in some cases.
- 4 Very occasionally a lichen thallus may be noted with its centre missing, together with a few millimetres of the substrate. In the two instances noted out of 70 or so yards surveyed, the masonry block involved was itself grossly substandard with faulty bedding planes. Far more serious frost damage was noted on the same block, in areas free from lichen growth.
- 5 If the architect decides that repointing is needed then some removal of lichen may be necessary. Any plants which overlap or lie directly on the mortar lines will have to go and, of course, any that may obstruct use of the mortar trowel, but those on the blocks themselves should be left. Removal by scraping can

only tend to damage the existing surface not only by mechanical action but also to some degree by exposing it to the effects of acid rain.

6 Summing up therefore, leave well alone if at all possible.

Before printing the above for handing out, the author, aware of entering shark infested waters, would be most grateful for amendment, correction or comment, stringent or otherwise. Incidentally, the damage mentioned in (4) above was by *Ochrolechia parella* in one case and *Lecanora muralis* in the other, and the damage photographed.

Don Smith
Westland, Westfields, Kirkbymoorside, York, YO6 6AG

CHURCHYARD LICHEN SURVEY

Many thanks to all who have contributed since the last *Bulletin*. The total number of species recorded has now risen to 435. Of these, 344 are saxicolous, 90 corticolous, 73 lignicolous, 34 muscicolous, 30 terricolous and 30 growing on other surfaces such as metal and rubber. A number of species, of course, occur on more than one substrate. Seventy percent are fruticose, 25% foliose and 5% foliose; fifty are found commonly within this environment, whereas 264 appear but rarely.

Detailed records have so far been received for Hampshire (VC 12), Sussex (VCs 13-14), Kent (VCs 15-16), Suffolk (VCs 25-26), Northamptonshire (VC 32), Warwickshire (VC 38) and Northumberland (VCs 25-26). I am indebted also to Don Smith of Kirkby Moorside for sending me species lists for almost 100 Yorkshire churchyards (VCs 61-62). It is especially important to compile records for yards in lowland vice-counties where there are no natural outcrops of rock, so please continue to send them. 'Complete' lists for sites with over 70 species would be appreciated. Such comparatively rich yards include Mickleham in Surrey (150 species!), Bitton in Somerset, Kirkdale in North Yorkshire, Ravenstonedale in Westmorland, Nacton in Suffolk, Burford and Wroxton in Oxfordshire, Long Compton and Whichford in Warwickshire, 13 in the southern half of Northamptonshire (notably Helmdon with over 100) and, no doubt, many more.

During the year, I have had the opportunity to visit churchyards in fourteen vice-counties and have recorded lichens on the tombs of such notables as

Captain Scott, Ronald Knox and Little Jack Horner! Highlights include finding *Cladonia gracilis* sprouting from the side of a sandstone headstone at Hope in Shropshire where a stream runs through the middle of the Churchyard ("Hope springs eternal!"). This was in April on Frank Dobson's Field Studies course. The journey home from Preston Montford took me no less than twelve hours! I drove through six vice-counties and close enough to twice as many churchyards to feel obliged to call in. Eventually bad light stopped play while I was still searching Shakespeare country for *Sarcopyrenia gibba*. The flush of success at finding it in Shropshire was still with me as I scanned every calcareous chest-tomb for this 'first' for Warwickshire. John Walton and I were at last to discover it in late August at Long Compton. More recently, I stayed on an extra day after the Gower meeting to enjoy immensely an afternoon in Rhossili churchyard high above the splendid sweep of the boundary walls well-decorated with such 'goodies' as *Catapyrenium lachneum* and *Squamarina cartilaginea*. At Cheriton there were a number of large thalli of *Lecanora rupicola* and *Ochrolechia parella* on the sandstone headstones and chest-tombs, one of the latter being 32cm in diameter (see *Bulletin* 65:22). Even more recently, guided by Mary Hickmott, I managed to locate a tiny churchyard on an island in a lake (Orchard Leigh, Somerset). It contained only a few rather shaded headstones but, by way of recompense, there were almost forty species on the trees and we found *Psilolechia leprosa* beside four copper wires hanging down the north wall. Since William Purvis suggested it might be an overlooked species (*Bulletin* 61:18), this lichen is turning up all over the place. One curious grave consisted of a box shrub (*Buxus sempervirens*) cut in the shape of a chest-tomb with a wooden cross 'planted' in the middle of it. We looked in vain for *Catillaria bouteillei*.

After travelling it is time to consolidate. Frustratingly, as new knowledge is gained, one feels the need to visit all the old sites yet again for the umpteenth time. What was regarded as possible *Lepraria membranacea* is almost certainly *Leproloma vouauxii*, much of the *Verrucaria viridula* is likely to be *V. macrostoma* and every *Lecanora crenulata* needs rechecking just in case it is *Lecania turicensis*. Still, it keeps one out of mischief!

Tom Chester
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A NEGLECTED HABITAT



Water dripping off metal pylon towers produces a toxic 'shadow' on the ground. The photograph shows the base of a pylon standing in grassland near Chesterfield, Derbyshire. Grass, unable to grow under the dripline, is replaced by a moss dominated community in which *Cladonia* spp. figure prominently. Such sites are also good places to search for *Sarcosagium campestre* and *Veizdaea* spp.

(Oliver Gilbert).

CITY DIARY - LONDON II

Following the very interesting and successful 'field meeting' in London after the 1989 AGM, we, that is Peggy Cayton, Peter Earland-Bennett, Albert Henderson and myself, decided on a repeat performance this year.

After the AGM was over, we settled down to tea and scones in the hotel lounge where some members of the group were staying, to plan our itinerary for Sunday although Peter, our driver for the day, did not meet us till the following morning. Saturday night's weather was a disaster. With thrashing rain but not a pair of wellington boots between us we wondered what we were in for. However, Sunday started bright and dry with quite

a cold wind, so, meeting Peter at 11.00 we set off and drove west to our first rendezvous: Barnes Common off Rocks Lane. Plenty of substrates presented themselves, such as concrete fence posts, trees, wooden seats and asphalt. *Lecanora dispersa* with *Arthonia clemens*, *Lecanora muralis*, *Verrucaria viridula*, *Phaeophyscia orbicularis*, *Lecidella stigmatea*, *Catillaria chalybeia* and a couple of *Caloplaca* spp. were seen on concrete, whilst *Lecidella stigmatea* and *Lecanora muralis* were found on asphalt of a local recreation area. Surprisingly, several trees had an abundance of young thalli. This was most noticeable on oaks with *Parmelia sulcata*, *P. subaurifera*, *Hypogymnia physodes*, *Evernia prunastri*, and *Ramalina farinacea* being present. A *Physcia* sp. was also noted but was too small to identify. Horse chestnuts were covered sparsely with *Lecanora conizaeoides* and their normal parasymbionts, although in crevices *Cliostomum griffithii* was recorded. The acidic bark of birch did not provide much of interest but *Buellia punctata* was seen at the base of one tree. The wood of the seats by the side of the paths on the common had such species as *L. saligna* and *Micarea denigrata* present but nothing else.

Close to Barnes Common was the derelict remain of Barnes Cemetery with ancient tombstones disappearing beneath large trees and scrub, and a tangle of blackberries. Where light could still reach the graves, lichens had colonised the stonework. Marble, acidic sandstone and granite tombs were present with some common basic species including *Caloplaca citrina*, *Rinodina gennarii*, *Lecania erysibe* form *sorediata* on the marble, *Lecanora dispersa* on lead lettering, and *Scoliciosporum umbrinum*, *Trapelia coarctata*, *T. obtogens*, *Psilolechia lucida*, *Lecidea* 'erratica' on sandstone and also *Micarea denigrata* on the top of a flaking sandstone memorial. *Lecidea fuscoatra* in this situation, on a fallen slab, was confusing in that it's C+ reaction was particularly strong; unusual for the pale lowland eastern form. Granite was devoid of any lichens at all.

An Acacia with a huge swelling at the base of the trunk supported *Bacidia cf arnoldiana* (det B J Coppins) in abundance and it is interesting in this context to note that a plane tree in Battersea Park (see City Diary: London - Bulletin 65:11-12) had the very similar *B. cf chlorotricula* on it. The trees were generally poorly covered in the cemetery due to shade and pollution though an exposed ash supported *Lepraria incana* in quantity quite high up the trunk and an oak had many thalli of corticolous species on horizontal branches.

Putney Cemetery close by, and still in use, was not looked at in detail. However, some of the outerwalls in deep shade were examined, and at the base of one, under a dense covering of algae, a thallus was seen and part

collected, and this turned out to be *Arthonia leucodontis*. This taxon is not unusual on stone in Suffolk and is more common as a saxicolous species than previously thought. *Catillaria chloroscotina*, now included in the *C. chalybeia* agg., was also recorded on the coping stones of the wall close by.

As time was getting on in the short hours of daylight, we progressed to Roehampton Lane to find food and had to dine off chocolate and peanuts. The lichens in the pub car park proved more interesting with *Cladonia chlorophaea* in unpointed niches of a high retaining brick wall and with *Lecanora stenotropa* and the variety of *Caloplaca citrina* which used to be referred to as forma *flavocitrina* (orange-brown squamules and bright yellow soralia) being found close by. On the coping stones of a low brick wall near the road, more of the C+ blood-red *Lecidea fuscoatra* was present.

Our final stop of the day was Wimbledon Common, a large expanse of open rough cut grass with bracken and extensive patches of *Calluna*, interspersed with oak and birch copses and criss-crossed with wide gravel trackways. The oaks were well covered with *Hypogymnia physodes*, *Evernia prunastri*, *Lepraria incana*, *Lecanora conizaeoides*, *Cladonia fimbriata* on moss and also *Athelia arachnoidea* and *Lichenocodium erodens* present. A rotting tree trunk supported *Lecanora saligna*. But perhaps the ground was the most interesting. *Placynthiella icmalea* was seen on peaty soil, as was a basidiomycete clubfungus *Clavaria argillacea*, subsequently determined by Roy Watling of Edinburgh, and two bits of brick were collected off the ground and taken home for examination.

By this time with cold wet feet, dusk rapidly falling on a wintry sun and with the mist rising, it was decided to call it a day. In any case, the hotel with more tea and scones was beckoning. There we could warm ourselves, deliberate over our interesting finds, dream of what might be, and not mind the rain pattering on the windows once more.

Our two last finds of the day were worth dreaming over for one turned out to be *Micarea lithinella* and the other *Thelidium minutulum*, exciting additions to the total list for the day of 52 species seen, 26 on Barnes Common, 25 in the Cemetery, 6 in Putney Cemetery, 9 in Roehampton Lane and 13 on Wimbledon Common.

Chris Hitch

SOME ANGLO-SAXON MENTIONS OF LICHENS

In a previous *Bulletin* (42:1) attention was drawn to the use in Anglo-Saxon charters of the adjective, 'har' (=hoar, i.e. of a white or grey colour with a shaggy texture), to describe trees or rocks with a conspicuous growth of fruticose lichen, such trees or stones often acting as boundary marks, the earliest example dated 675 AD.

Other references to lichens in Anglo-Saxon are sparse and employ the noun 'ragu' (=lichen). A few such references occur in a collection of magical/medicinal charms (Cockayne 1866) dating from the 10th century. Concentration here is not at all on the colour or morphology of the lichens but entirely on their substrate. For instance, for an effective charm against elf disease, along with 'bishopwort, fennel, lupin, the nether part of enchanter's nightshade and incense, of each a handful', one needs 'church lichen and moss or lichen from the hallowed sign of Christ'. A recipe in the same Leech Book for a wound salve calls among other things for 'the lichen of hazel'. Present-day lichen taxonomy has little in common with such descriptions from a pre-Linnaean era.

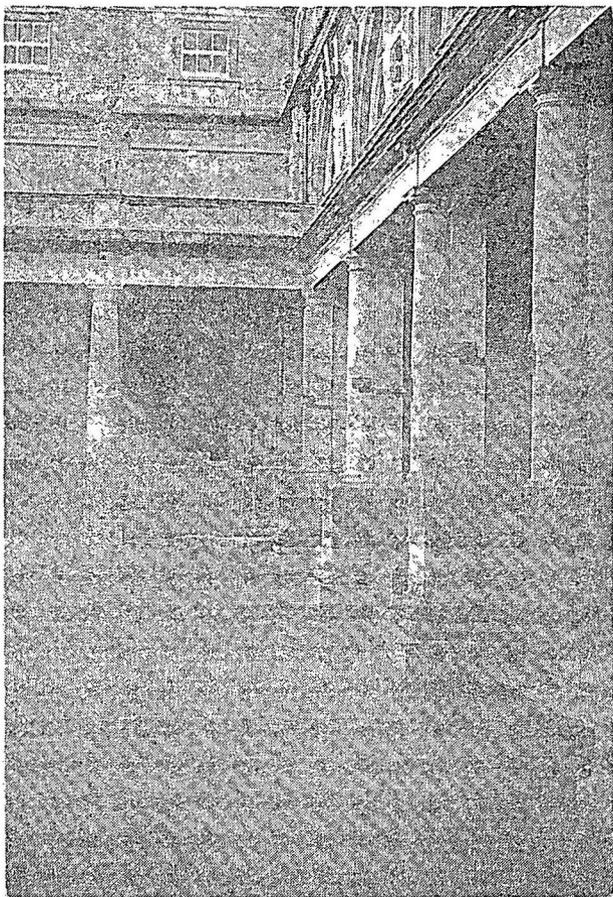
Perhaps the most impressive mention of lichens in Anglo-Saxon literature is encountered in the religious ode, *The Ruin* (Earle 1873 and 1884). In this fine, unfortunately fragmentary elegy, dated c 10th century, the poet meditates among Roman ruins which, despite their state of decay, are 'stupendous . . . the works of giants'. There has been considerable argument as to whether the Roman ruins in question are those of Bath, of Chester, of Hadrian's Wall, even of Babylon of the Apocalypse, or of some entirely fictitious city (Renoir 1983). However, the description is clearly based on extensive ruins where springs were used to supply warm baths. All in all, the Roman ruins in the city of Bath seem the likeliest contender. Gazing upon one of the ruined walls, the anonymous Anglo-Saxon poet comments:

'Oft daes wag gebad
raeghar ond readfah rice aefter odrum'.

(Time and again this wall endured,

Lichen-grey and red-stained, as kingdom followed kingdoms.)

Of special lichenological interest here is the use of the compound formation, 'raeghar', combining the two elements 'ragu' (=lichen) and 'har' (=hoar). In this poetically intense line and a half, as well as conveying a powerful image of the blood-flecked battle-ridden times the wall has endured, the poet also presents the stamina and durability of lichen and stone as a model of human stoicism in the face of time and changing fortunes. Also, for a lichenologist, the import of the phrase, 'raeghar and readfah' (=lichen-hoar and red-hued), merits close examination.



View of the Roman baths in the city of Bath (copyright Colin Baxter). On the ruined wall under the rounded arch below the colonnade '*opus signinum*' plaster has been preserved.

The Roman walls in Bath are of oolitic limestone and would support calcicolous epiliths. Before considering what lichen community is likely to be described as 'raeghar ond readfah', it should be noted that the Romans used a red plaster on the inner walls of the baths. This was of the '*opus signinum*' type, ie made of crushed brick, tile and lime, with a lime content (measured elsewhere than Bath) of 30 to 50 per cent by weight. Red pigmentation was imparted by either haematite (Fe_2O_3) which with age might easily go the colour of congealed blood, or cinnabar (HgS). The latter,

of a brighter vermilion hue was a more exotic and expensive alternative and unlikely to be used in Britain, which was considered a rougher, outlying part of the Empire. 'Readfah' (=red-stained) might thus apply solely to the colour of the inner wall plaster, in which case the poet would be describing an old wall with the inner side red-plastered and with a grey-white *Aspicilion* or *Physcietum* community colonising wall and/or plaster.

Secondly, 'readfah' might refer to patches or stretches of the alga *Trentepohlia aurea*, quite possibly in an *Aspicilion calcareae* community with *Belonia nidarosiensis*.

The third main possibility is a community of the *Xanthorion parietinae*, either *Caloplacetum* or *Physcietum*. A well-developed sunlit *Xanthorion* community with plenteous yellow to orange-red *Caloplaca* and *Xanthoria* thalli scattered among duller *Physcia* and other grey-white species might best meet the striking image of the blood of battles splashed on time's grey wall.

Acknowledgement

I should like to thank Mr M T Beaton, Field Officer, Bath Archaeological Trust, for informative discussion.

Albert Henderson

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SPRING MEETING 1990

A three-legged race round the Isle of Man

The Isle of Man meet was unusual in several ways, one of them being that there were only four of us on it: Peter E-B, Chris Hitch, Trevor Duke and myself. Other members were expected to participate but had to cancel at the last minute due to illness. As it turned out, four made quite a nice neat number.

The Throwers had arranged excellent accommodation for us at the Grosvenor Hotel in Port Erin, also the use of a splendid laboratory at the Marine Biological Research Station about a mile from the hotel. This made our evening lab sessions a particular pleasure as we spread ourselves in the unaccustomed space, with microscopes to spare, a coffee machine that dispensed cups of beef tea and a television room for brief escapes to catch up on the news and the next day's weather forecast. We shivered in Force 6 gales for four days, but when they subsided it was like a second spring with bare trees coming into leaf and primroses beginning to flower.

Peter had devised a programme of three or four sites a day for us. Work usually began at 6 am with Chris knocking hopefully on our doors to know if anyone was ready for a pre-breakfast slog up the nearest mountain! It finished in the lab around 3.30 am with Trevor opting for that shift as some of his finds demanded 8 hours attention.

We hope we were able to help the Manx Conservation Society a little by surveying the Langness area and providing a list of a hundred or so species that will be under threat (along with one rare caterpillar) should plans for another 18 hole golf course go ahead. Twenty-four glens had already been visited by Peter on a previous trip. We looked at several more but the corticolous species were somewhat disappointing, although there were sheets of *Thelotrema* and some *Normandina* on sycamore at Ballahowin. Apart from marine rocks, we tended to concentrate on mine spoil heaps which had not been done before. *Vezeadaea aestivalis* was abundant everywhere. A *Thelocarpon* the colour of oil-seed rape turned up on the banks near the Laxey wheel. Peter found *Rinodina conradii* at the Cross-vein mine - and promptly lost the specimen! We visited that mine about eight times looking for a brown envelope full of precious material and for hammers, chisels and notebooks lost while searching for it.

A disused copper mine at Agneash was perhaps the most fascinating of the mine sites. Three of us were crawling around the slag heaps when a shout from Trevor had us scrambling up through the debris to the second storey

of a crumbling mine house. The floor of the north-facing room was covered with a succulent layer of green crud which looked promising for *Veizdaea*. We spent about an hour cutting out squares of mud and excitement ran high as examination revealed variously-coloured fruits, like translucent quartz. The count of anticipated new *Veizdaea* species rose to four at one stage but reduced in the cold light of the laboratory to possibly one. There was also fertile *Psilolechia leprosa* on a damp wall nearby.

The highlight of the meet was undoubtedly the last day when the MBRS provided us with a launch and a helmsman and we were dropped off at 10.30 am on the Calf, a small island off the south-west coast. We met some old acquaintances among the acidic community on the Manx slates but hadn't really long enough to explore more than a small area - collecting as fast as we could go. Among the 120 spp. found in three hours were *Enterographa hutchinsiae*, fertile *Solenopsora vulturiensis* and *S. holophaea*. We were due to be picked up at 1.45. Luckily we were back on the shore earlier as the boat chugged up at 1.30 and we were given three seconds to jump on board before the tide receded. There followed a harrowing five minutes as the helmsman tried to negotiate a channel to get us clear of the rocks which were grinding against the bottom of the boat and causing the launch to judder as though shipwreck was imminent! But we finally made it. Later on the Calf Sound we saw the IOM speciality *Anaptychia ciliaris* f. *mammilata* and came across *Placidiopsis custanii*, a welcome basic species among the mostly acidic rocks.

By the end of ten days we had accumulated a mountain of potentially fabulous finds, including Chris's possibly new *Psilolechia*, Trevor's unknown *Sarcosagium* and Peter's collection of 'undreamed ofs'. As the boxes were being stacked into the cars, we spared a thought for Brian, unaware of the impending avalanche. Peter suggested a postcard advising him to take a long holiday - perhaps a year!

Peggy Cayton

SUMMER FIELD MEETING IN IRELAND: 6 - 20 July 1991

The summer field meeting will be in two parts: the first week in Co Mayo and the second in Co Donegal. First we plan to re-survey the lichen flora of Clare Island which was surveyed in the early part of this century by Miss Matilda Knowles and Miss Annie Loraine Smith. The Island is geologically very diverse but small enough for parts to be reached on foot. Secondly we aim to visit the Glenveagh area of Donegal and assist the recently established National Park by investigating its lichen flora. Both Clare Island and the Glenveagh National Park have dramatic scenery and a rich lichen flora in a diverse range of habitats, so the field meeting will, we hope, attract a good attendance.

The arrangements will be as follows: Whether you travel to Ireland by car ferry, train and boat or air, Participants will meet at the Botany Department, Trinity College, Dublin by 11.00 am on July 6. Travel to Dublin via air costs c. £80 return with advance booking. Catch the airport bus to the city centre from which Trinity is 10 minutes walk or a short taxi ride. Alternatively you can travel by train or car to link up with the Holyhead to Dunlaoghaire Ferry. A bus connects with this to bring you to Dublin. We expect some people to arrive by car but plan to have a minibus with six available seats as well. The combination should allow the whole party to travel from Dublin on July 6 to arrive in Louisburg, Co Mayo in time for dinner. One to two stops may be made en route. At Louisburg we will stay two nights at a B & B (Mrs Burns and Mrs Coin c. IR£11 a night). On the Sunday we may drive through the mountains to Delphi and on Monday morning visit Old Head Wood. We then plan to take the Ferry to Clare Island (c. IR£18 return). On Clare Island, the field meeting will be based at Bayview Hotel (B & B c. IR£15) but it is also possible to stay in the adjacent diving hostel (B c. IR£6 or IR£9 with breakfast). Mrs Mary Moran has a nearby B & B at around £11 a night. Our stay on the island will be assisted by Ciara Cullen who runs the excellent Island Restaurant. We will visit the many varied habitats on the Island returning by ferry on Friday morning. After a further one night stay at Louisburg we will travel on the Saturday to Donegal.

In Donegal the field meeting will be centred at the Gartan Outdoor Education Centre which is surrounded by 87 acres of old woodlands, many dripping with *Lobaria*. This centre provides dormitory type accommodation with rooms for 4 persons upwards. The price per day, including B&B packed lunch and dinner, is in the region of IR£15. Less than a mile away there is B & B accommodation with Mrs Greta McMonagle costing about IR£11 per night. The Education Centre is some six miles from the

Glenveagh National Park where we will spend much of our time surveying the lichen flora. We will be able to use the laboratory at the Glenveagh National Park. The meeting will end early on Saturday July 20 and we will return in time for people to catch the evening ferry from Dunlaoghaire or an evening flight from Dublin.

This field meeting involves considerable logistic organisation and booking at a time in the season when there is limited accommodation. It is thus essential that we make firm reservations. For this reason we are asking for a deposit of £10 from each participant (a sterling cheque will do) together with an indication of the type of accommodation that they require on Clare Island and in Donegal. This deposit must reach us before the end of February. Please address any further enquiries to:

David Richardson, Howard Fox & Mark Seaward.

FROM THE ASSISTANT TREASURER

Subscriptions for 1991 are due on 1 January but earlier payment is welcome. Subscription rates are unchanged at £20.00 per annum for Ordinary membership. Until the end of this year only it is possible to take advantage of the reduced five-year 1990-1994 membership rate by paying the difference between the annual rate and the five year rate. Alternatively you may wish to opt for the reduced three-year rate for 1990-1992 by paying the difference between the annual rate and the three-year rate. The three year rate only remains available for 1991-1993.

Please notify me as soon as possible of any change of address to ensure that you receive all Society literature without delay.

If you do not wish to continue your membership of the Society it would be helpful if you would kindly let me know so that our records can be kept up to date.

Jeremy Gray

FOURTH INTERNATIONAL MYCOLOGICAL CONGRESS (IMC - 4)

This splendidly organised congress was held in the old Bavarian town of Regensburg from the 28 August until 3 September. 1627 participants attended the congress from 60 different countries and of this number some 120 were lichenologists. In marked contrast to the last mycological congress which was held in Tokyo and offered very little scope for lichenological contributions, the Regensburg Congress allowed lichens a very high profile indeed. Not unconnected with this being the fact that the Congress President was Prof Josef Poelt and the Secretary-General of the International Mycological Association, the parent body of the congress, was our own Prof David Hawksworth.

In an extremely wide-ranging scientific programme (where up to 7 concurrent sessions were held) lichens were specifically discussed in the following sessions, (convenors in parentheses): *Lichen taxonomy and systematics* (H. Hertel); *Lichenicolous and fungicolous fungi* (D L Hawksworth & R Santesson); *Morphogenesis in ascomycetes (including lichenized taxa)* (R. Honegger); *Morphogenesis of lichens* (H M Jahns); *Distribution of lichenized and non-lichenized fungi in the Southern Hemisphere* (D J Galloway and E Horak); *The ecological role of lichens* (T H Nash); *General problems in Mediterranean lichenology* (J Poelt); *Lichens and air pollution* (R Türk); *Chemotaxonomy II* (P Blanz); *Nomenclature under the Botanical Code* (R P Korf). General lectures were given by Prof Poelt on "Analogy and homology in the evolution of lichens", and by Prof David Richardson on "Lichens and man".

The International Association for Lichenology held a general meeting and also organised a most successful Dinner at which 100 lichenologists were present. All in all lichenologists felt the Regensburg Congress to be a tremendous success, thanks to the efforts by Prof Andreas Bresinsky and his organising committee, with progress in lichenology being widely discussed on many fronts.

David Galloway

PUBLICATION ANNOUNCEMENT

Publication of *Tropical Lichens: Their Systematics, Conservation and Ecology*, the proceedings of the IAL-Systematics Association meeting in London last year, is due from Oxford University Press early in the New Year.

BRITISH LICHEN SOCIETY HONORARY MEMBERS

The rules of the Society state that "Honorary Members shall be distinguished lichenologists and persons who have rendered valuable service to the Society. They shall be nominated by the Council and elected on a majority vote of those present and voting at a general meeting of the Society. They shall enjoy the same benefits as ordinary members but shall pay no subscription."

Council decided (6 July 1973) that there should only be five Honorary Members at any one time, but although no further minute has since been recorded, Council now feels that with the increase in size of the Society, no more than ten Honorary Members seems more appropriate. This arrangement has been tacitly adhered to over the past few years. Honorary Membership is the highest honour that the Society can bestow on an individual and the decisions, therefore, are not taken lightly by Council. Below is a list of all the Honorary Members of the Society since its inception in 1958.

Honorary Member	Date of election at AGM	
H des Abbayes	1958*	(d. 1974)
V Allorge	1959*	(d. 1977)
W Watson	1959*	(d. 1960)
Y Asahina	2.1.71	(d. 1975)
F A Sowter	2.1.71	(d. 1972)
A E Wade	2.1.71	(d. 1989)
V P Savicz	6.1.73	(d. 1972)
E Mackenzie	5.1.74	(d. 1990)
G Degelius	3.1.76	
U K Duncan	8.1.77	(d. 1985)
P W James	10.1.81	
A Vezda	10.1.81	
T D V Swinscow	8.1.83	
R Santesson	11.1.86	
F H Brightman	9.1.88	
J R Laundon	9.1.88	
J Poelt	7.1.89	

* These three were elected as Honorary Members soon after the formation of the Society (see *Bulletin* 28: 4) but their election was not formally recorded in the minutes (dates according to a personal communication from A E Wade to J R Laundon).

Tim Moxham

DAVID HAWKSWORTH ELECTED PRESIDENT OF IMA

The Executive Committee of the International Mycological Association (IMA), which met during the 4th International Mycological Congress (IMC4) in Regensburg, Germany in September, nominated David Hawksworth as IMA President. David was duly elected by the IMA General Assembly and he will hold the office until 1994. The IMA is the coordinating body for mycology at the international level and constitutes the Section for General Mycology of the International Union of Biological Sciences (IUBS). The IMA is supported by both national and international societies with mycological interests including the BLS and the British Mycological Society. It sponsors the series of International Mycological Congresses which began in 1971, the next such event being IMC5 at the University of British Columbia, Vancouver, on 14-21 August 1994. The Society extends its congratulations to David for having this honour bestowed upon him.

LICHENS IN THE SHETLAND MUSEUM HERBARIUM

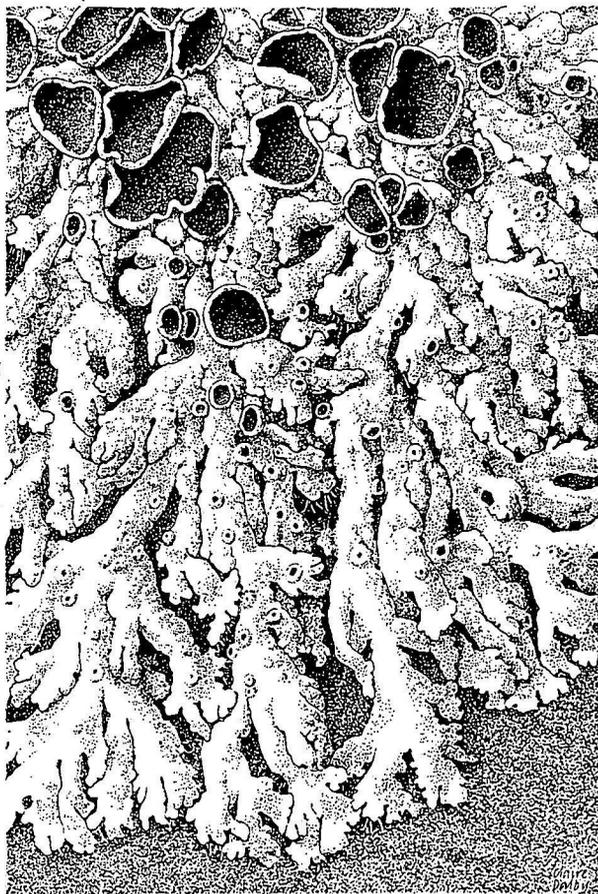
The Shetland Museum, Lower Hillhead, Lerwick ZE1 0EL (acronym ZCM) houses collections of Shetland origin or those directly concerned with the Shetland Isles. The lichen herbarium is small, consisting at present of about 100 specimens all collected in Shetland. Sixty of these are represented by specimens collected by Humphrey Bowen in August 1967, 7 were collected in association with the Shetland Oil Terminal Environmental Advisory Group monitoring programme and named by Peter James, and 35 species were collected between 1986 and 1990 by Kery and Claire Dalby. Many packets include species additional to those entered on the packet labels, and only a few of these have so far been examined critically. The lichen collection is primarily intended as a reference set for interested local users of the Museum and does not, as yet, contain much that is of wider phytogeographical importance. The total lichen flora of Shetland (including Fair Isle and Foula) is already known to exceed 420 species, so the Shetland Museum collection still has some way to go before it can be regarded in any way as being comprehensive in the local sense. I am grateful to the Curator, Tommy Watt, for allowing me to examine the lichen collection, and to Humphrey Bowen for lending me his record cards and annotated species lists.

Kery Dalby

LICHEN SOCIETY GREETINGS CARDS

Physcia aipolia

This is the fifth card in the series exclusively produced for the British Lichen Society by Claire Dalby. The cards are blank inside. They are sold in packets of 10 at £4.50 (post free) or packets of 5 for £3.00 (post free). Proceeds go to the *British Lichen Society* to which cheques should be made payable.



When ordering by post, send to The Assistant Treasurer, Myrtle Cottage, Church Lane, Kingston St Mary, Taunton, Somerset, TA2 8HR. These cards will also be on display at the Annual General Meeting. There are still some cards of *Ramalina cuspidata* available at a reduced price of 10 for £3.50

PITCAIRN ISLANDS SCIENTIFIC EXPEDITION

A multinational multidisciplinary expedition bound for the Pitcairn Islands in the South Pacific is at an advanced stage of preparation. Fieldwork will fill five 3-month phases, from 1 January 1991 to Easter 1992, and will concentrate on the raised coral island of Henderson, recently designated a World Heritage Site by UNESCO. Missing from the team is a person able to undertake a comprehensive survey of the mosses, lichens and fungi, many of which will be undescribed. Anybody interested in filling this role for one 3-month phase should contact Dr Michael Brooke, Department of Zoology, Downing Street, Cambridge, CB2 3EJ, as soon as possible.

LICHENS

Unknown by most, loved by a few,
How lucky I am to understand you.
Only noticed by many, when you're not there,
I'm glad that with me some secrets you share.
You brighten our walls and make our roofs mellow,
Passive delights of blue, grey and yellow.
Your infinite form, colour and size,
Blend into a harmonious feast for the eyes.
All of these things help brighten my day,
Such simple delights will last forever, I pray.

Anon

CALOPLACA LUTEOALBA (Turn.) Th.Fr.

Has anyone seen *Caloplaca luteoalba* recently? There are many 'recent' records on the BLS map for this species but most are from the 1960s, before the great elm decline itself, and anecdotal information suggests that it has indeed undergone a catastrophic decline, being almost elm-specific. It would be of interest to determine its current status. Therefore if anyone has seen this species in the last 10 years or so, could they please send the record(s), with site name, grid references, date, and, if possible, an indication of the condition and abundance of the plant, to me at the Nature Conservancy Council, Northminster House, Peterborough, PE1 1UA.

Nick Hodgetts
NCC Lower Plant Specialist

RESULTS OF SUMMER QUESTIONNAIRE

Thank you very much to the 61 members who replied to the questionnaire sent with the Summer Bulletin. This was an 11.5% response which was quite encouraging. The distribution was fairly even; amateurs and professionals, regular attenders at events and lesser seen folks, overseas (12) and UK (49). Unfortunately 5 replies were received after I had produced the results so the survey is based on $n=56$. Ten people also sent lengthy letters, and a lot of effort was put in by many who completed the survey. Thank you all very much.

I propose to give only a brief resume of the results here; a ten page report was presented to Council and sent to the people who completed the questionnaire, so if you would like to receive a copy of this please send me a stamped SAE (address on inside rear cover).

Rome wasn't built in a day and neither is it going to be possible to put into operation all at once many of the good ideas that have come out of your responses. However, Council was quick to respond to some of the ideas and this Christmas you will be able to buy, in addition to the greetings cards, lichen postcards, T-shirts emblazoned with the Society's logo and name, sweatshirts with a neatly embroidered breast-pocket sized logo, mugs with logo and society name, and ties with a woven below-knot motif. All these items will be available for sale at the AGM. If this exercise is successful, it should be possible to expand the range of items for sale, but one step at a time . . .

Field Meetings

Gratifyingly for Council it appears from your replies that the sort of meetings that are currently arranged are about right. When asked how many meetings you would like per year, the response was - 2 (9), 3 (15) and 4 (12), and in reply to when you would like them - Spring (34), Spring/Summer (22), Summer (18), Autumn (38) and Winter (2). Obviously it is impossible to please all of the people all of the time and while some can only make vacation time, others would like to see events arranged in the quieter term-time. Again, most people were happy with the selection of venues chosen - Yes (36), No (7), and further suggestions were put forward which will keep the Society in business for years to come! Similarly, 35 people stated that they would like to see specific topics covered in workshop-type courses (3 said no) and an excellent range of subjects was given such as photography, chromatography (including TLC), lichenicolous fungi, difficult taxa such as *Cladonia*, *Usnea*, *Lecidea*, *Lecanora*, *Caloplaca*, sterile crusts, lichenometry, lichens and stone decay, pollution, seashore lichens and

many more. It won't be possible to cover all of these at once, but look out for this type of course in the years ahead.

Most people (Yes 31, No 6) said that they would like to see more courses for beginners, many saying that these should be based regionally and would introduce newcomers to the lichens of particular areas. Perhaps it is a good time to mention that Council recognises the different requirements of 'beginners', 'improvers' and those who are able to take part in field meetings and produce useful data from an area. Field trips of all three kinds will be arranged in the future to cover all members' needs.

Overseas Meetings

Most liked to see these advertised in the Field Meetings broadsheet (Yes 39, No 3) but fewer felt the need for the BLS to arrange its own overseas meetings (Yes 27, No 10). The feeling was that these had not usually been very well attended in the past, though there were quite a few suggestions of places to visit in sunny climes! Council took note of these comments and the Field Meetings Secretary will put some suggestions to the next AGM.

Other Facilities

Postcards came top of the popularity ratings (40), followed by earthenware mugs (25), woven ties (25), sweatshirts (24), T-shirts (24) and notebooks (22). As mentioned above all these items are being purchased and the aquapad notebooks are being re-ordered. It may be possible in the near future to supply other items such as key fobs, badges, car window stickers, tea-towels, etc., all of which received a favourable vote from the respondents, but a) we don't want to tie too much money up in this sort of commercial enterprise, and b) we really want to see how well the most popular items sell before embarking on other ventures. Various other suggestions were put forward such as the Society selling field and laboratory equipment (eg. hammers, chisels, knapsacks, herbarium packets, hand lenses, chemicals, etc). Although as a Society we do not intend to hold such stocks, I will be happy to supply any member with these items, and at the AGM I will have a small quantity of hand lenses and dissecting instruments. I will be happy to take orders for any other items or to provide names and addresses of suppliers - though many major suppliers are often reluctant to deal with 'small' cash sales.

Regional Representatives

44 people considered UK Regional Representatives to be a good idea (Yes 44, No 2), and 16 people offered their services. Several people commented that by choice they would prefer to see County Representatives, but in

practice Area Representatives would be more realistic. I will endeavour to present a plan to the AGM.

As far as overseas Representatives are concerned, from the small number of responses it is difficult to see the way forward. Council will look at the individual cases and decide what, if anything, should be done.

Annual General Meeting

From the multiplicity of answers to this question it would appear that variety is essential in order to cater for everybody's tastes.

Booksale	21	Buffet	18
Brains Trust	7	Conversazione . . .	11
Social Event	12	Slide Show	12

Comments were made about the frequency of the booksale and, in order to maintain a reasonable level of lichenological books, this event will now be held biennially. Other suggestions, such as costs, venues and activities, were noted.

Lectures

Council were again pleased to have confirmed that the sort of programme that is usually arranged is just what people want to see. One consistent point raised, however, was the need for adequate discussion time after lectures. The helpful suggestions for future lectures will ensure, no doubt, an interesting and varied programme for years to come.

Exhibits

Generally, most people would like to see better facilities and more room for their exhibits. At the January 1991 meeting there will be more table space and pin boards to display mounted exhibits.

Open Days

Several people would like to see the Open Days repeated at the venues already visited; other suggestions were the Royal Botanic Garden Edinburgh, the National Museum of Wales, Cardiff, the Chelsea Physic Garden and regional visits. Council will consider the possibility of holding the AGM at venues outside London, but the feeling was that any Open Days should be specifically lichenological, rather than generally botanical.

The questionnaire ratified the decision made at the 1990 AGM to continue holding the Meeting on the first full weekend in January (27 for, 6 against).

Literature

An *ad hoc* Publicity Committee has already met three times to discuss ways that the Society can improve the facilities which it offers to members and educational literature is something that everyone agreed would be of benefit. However, those most suitable for writing such leaflets, projects and booklets are already very busy people and this is going to take some time to get under way. Nevertheless, these items should appear in the next year or so. The suggestions from the questionnaire were helpful.

Membership

15 people said that they would like to see different grades of membership; 26 were happy with the current grades. However many UK 'amateur' members have for some time been advocating a grade of membership for a reduced subscription that does not receive the *Lichenologist*. This was quite a common theme of those wishing to see changes in the grade of membership and a proposal will be put by Council to the AGM in January 1991 to start in January 1992. Dr Brown, the Senior Editor, has discussed this with Academic Press and it is felt that such a grade of membership would not jeopardise the publication of the *Lichenologist*.

Also suggested were reduced membership for retired or unemployed members, family membership (also to be proposed at the AGM) and a Young Lichenologists' Club.

Other Suggestions

Many more comments and suggestions were made. Again, it is not possible to put all into operation, nor would it be desirable to do so. But these suggestions were very helpful and it will help Council in their decision-making to know the feelings of members on certain topics. The following is a handful of suggestions picked at random - to change the financial year so that the accounts for the preceding year can be presented to the AGM - a catalogue of archival material - encourage more use of computers among members - a second Atlas - highlight members' interests in the Membership List - to tape the AGM lectures - and many, many more . . .

Thanks again to all who participated.

Tim Moxham

"LICHEN BITES MAN"

No, not a genuine report but a recent request from the BLS Archivist/Librarian for help in scouring the non-academic literature. If you come across ANY reference to lichens in national or local newspapers, local conservation group or natural history society reports, newsletters or pamphlets please send a copy to Dennis Brown at the Botany Department, The University, Bristol BS8 1UG. Make sure that the original and date of cuttings or photocopies are included. Do not assume that someone else will send the obvious article in The Times or Sunday Sport; inundate the Archivist with copies! (The Archivist promises not to publish a list of which papers individual lichenologists read.) Old references, as well as future ones, will be much appreciated. Although many of the items will not directly refer to BLS members (don't be shy if you are involved) or the Society it will be interesting to get an indication of how lichens are being presented to the general public. Is the BLS having an impact on the media, will reporting be more informative and accurate in the future, and what are the current lichenological topics being mentioned? Without such a collection future lichenologists will not know how the perception of their subject has changed. There is no need to confine your cuttings to the British Isles; contributions from non-UK members and sources will also be much appreciated. If you have tape recordings of lichenologists on the radio/television, copies would be appreciated; we already have one video in the Library.

And don't forget to continue sending reprints, school or university projects, reserve surveys, reports to the NCC, etc, to the Library. We are gathering an unique collection of such documents, but we need your help.

Dennis Brown

NEW, RARE AND INTERESTING BRITISH LICHEN RECORDS

(Contributions to this section are always welcome. Please submit entries to Frank Brightman, South London Botanical Institute, 323 Norwood Road, London SE24 9AQ, in the form of species: habitat: locality: vice county (V.C.): grid reference (G.R.): date: comments: recorder. Grid references may be abridged in the interest of conservation; they will be omitted when the record has been published elsewhere).

Anaptychia runcinata: extensive colony on one small crag in pasture, Cragganester, Perthshire VC 88, GR 27/66-38-. About as far away from the sea as it is possible to get in Scotland.

Alan Fryday

Arthroraphis grisea: lichenicolous on thalli of *Baeomyces rufus*, on compacted sandy soil. Westleton Common, Suffolk. VC 25, East Suffolk, GR 62/44-68-, 1990.

P M Earland-Bennett, C J B Hitch and P Cayton

Bacidia saxenii: on old farm gate round rusty nails. Benacre Park, Suffolk. VC 25, East Suffolk, GR 62/50-83, 1990. New for the County.

C J B Hitch and P Cayton.

Bacidia saxenii: on an iron trailer, and on leather on the ground, in derelict saw mills, Westleton Heath, Suffolk, VC 25, East Suffolk, GR 62/45-69-, 1990.

P M Earland-Bennett

Baeomyces placophyllus: frequent above forestry, Two Mile River, Carlingford Mtn., Co. Louth, altitude 200m., VC H31, Louth, GR 33/164137, 1990. Most southerly Irish station currently known.

M D Allen, H Fox, K Lewis and S Murphy.

Buelliella physciicola Poelt & Hafellner: lichenicolous on *Phaeophyscia orbicularis* on roof tile blown off in a gale. Evenley, Northamptonshire, VC 32, Northampton, GR 42/585348, 1987. New to Britain. Previously recorded on *P. orbicularis* and *P. sciastra* from Czechoslovakia, Austria, Italy and Japan. Determined B J Coppins.

T W Chester

Chaenotheca chrysocephala: rare on rotting *Larix* in old forestry plantation, Tibbradden Mtn., Co. Dublin, altitude 390m., VC H21, Dublin, GR 32/151218, 1990. First Irish record.

H Fox

Chaenotheca ferruginea: on *Larix*, Ballynacarrick Lower, Corballis Hill, Castledermot, Co. Kildare, altitude 190m., VC H19, Kildare, GR 21/819876, 1988. A third Irish record to add to A M O'Dare's from counties Antrim and Armagh.

H Fox

Cladonia brevis: on bare peaty soil in burned heath, S E of Shappens Hill, Burley, New Forest, VC 11, GR 41/21-01-; May 5, 1990. New to the British Isles: on the Continent we can only trace records for N W Germany (Oldenburg) and the Black Forest, from which areas there are no very recent records. This *Cladonia* has abundant basal squamules resembling forms of *C. squamosa*, but these are strongly yellow-green sorediate, and react Pd+ vivid golden-yellow. Podetia are short (to only 1 cm tall), longitudinally fenestrated, and bear very dark brown globose ascocarps on stellately spreading, more or less horizontal branches. Further search in the New Forest and elsewhere has so far revealed no other populations, but the original population is now known to extend over some 250m² of heathland. It is easily overlooked but it may prove to be widespread in British lowland heaths if looked for carefully. Some young thalli appeared to be attached to the upper surface of *C. strepsilis* patches; there could be a replacement strategy here as in *Diploschistes muscorum*. Identification confirmed by B J Coppins and P W James.

F Rose and N A Sanderson

Cladonia peziziformis: on bare patches of peat on burnt heathland, Dowrog Common, VC 45, Pembrokeshire, GR 12/770269, 1989. New to Wales. Frequent over an area of approx. 1400m, with *Calluna vulgaris*, *Erica tetralix*, *Molinia caerulea*, *Ulex gallii* and *Campylopus introflexus*. Not seen elsewhere at Dowrog and likely to be lost as the vegetation recovers from burning.

A Orange

Coniocybe furfuracea: growing 4-6' up the trunk of a living elm by riverside in a dampish gorge, Shulhell Bridge, River South Esk, Angus, VC 90, Angus, GR 37/42-58-, 1990.

R C Munro, C J B Hitch and P Cayton

Lecanora dispersa with *Lichenocodium lecanorae* on mortar of cottage wall, Sebton Green, Suffolk, VC 25, East Suffolk, GR 62/37-71-, 1990.

P M Earland-Bennett

Lecidea erratica with *Lichenodiplis lecanorae* on cockscomb crystals of marcasite on the ground, Westleton Common, Suffolk, VC 25, East Suffolk, GR 62/44-68-, 1990.

P M Earland-Bennett, C J B Hitch and P Cayton

Lecidea erratica: on plastic fabric conditioner bottle 13/5/90 and on plasticised silver paper 20/5/90 in derelict saw mills, Westleton Heath, Suffolk, VC 25, East Suffolk, GR 62/45-69-.

P M Earland-Bennett

Lecidea erratica: with *Lichenodiplis lecanorae* on old metal toothpaste lid in sand-dunes, The Ayres, IOM, during BLS field meeting, VC 72, Isle of Man, GR 25/43-03-, 1990.

P M Earland-Bennett

Leptogium byssinum: common on basic compacted sand in a low sand-dune area, Benacre Ness, Suffolk, VC 25, East Suffolk, GR 62/53-84-, 1990. New to the County.

C J B Hitch and P Cayton

Leucocarpia biatorella: over bryophytes on mica-schist (1000m.), Meall Corranaich, Ben Lawers range, Perthshire, VC 88, GR 27/61-41-. New to Britain. Associated species - *Protothelenella sphinctrioidella*, *Polyblastia gelatinosa*, *Thelopsis melathelia*. Confirmed B J Coppins.

Alan Fryday

Micarea lignaria: on compacted sandy soil, Westleton Common, Suffolk, VC 25, East Suffolk, GR 62/44-68-, 1990.

P M Earland-Bennett, C J B Hitch and P Cayton

Opegrapha demutata: on flint pebble in shady ditch in clay soil, Grove Farm, Pettistree, Suffolk, VC 25, East Suffolk, GR 62/29-55-, 1989. Determined B J Coppins. New to the county.

C J B Hitch, P M Earland-Bennett and P Cayton

Parmelia tiliacea: on the tops of 37 headstones and a buttress, Great Brington churchyard, Northamptonshire, VC 32, Northampton, GR 42/667652, 1988. Also on 25 headstones and a willow in Crick churchyard, GR 42/589725.

T W Chester, C J B Hitch, M Senior and J M Walton

Psilolechia leprosa: on a headstone erected in memory of Dame Edith Sitwell (1887-1964), Weedon Lois church, Northamptonshire, VC 32, Northampton, GR 42/602469, 1990. Immediately below, a bronze by Henry Moore, "The Hands of Youth and Age", is partly disfigured by the lichen. The stone is Hornton Stone from Edge Hill, Warwickshire. The species has also been found under copper window grilles on the ironstone walls of the churches of Culworth, GR 42/544469 and Lower Boddington, GR 42/483532.

T W Chester

Rinodina isidioides: on a group of mature oaks on the south side of the River Arnisdale, Glen Arnisdale, Westernness, VC 97. GR 18/87-09-. A new northern limit for this predominantly southern species.

Alan Fryday

Staurothele succedens: on soft base-rich sandstone near stream, alt. 480m, 6 km north of Pontsticill, VC 42, Breconshire, GR 32/054178, 1990. New to Wales.

A Orange

Strigula jamesii: on walnut discovered on a reassessment of Benacre Park, Suffolk, VC 25, East Suffolk, GR 62/50-83-, 1990. New for the county.

P M Earland-Bennett, C J B Hitch and P Cayton

Thelocarpon laureri: on old timber in derelict farmyard, Inish, Ballyteige Bay, Co Wexford, VC H12, Wexford. GR 21/949054, 1990. On wooden garden seat, Coursetown, Athy, Co Kildare, VC H19 Kildare, GR 21/654947, 1990. Apparently previously unreported from Ireland.

H Fox

Verrucaria dolosa: on old brick in cottage garden, Sibton Green, Suffolk, VC 25, East Suffolk, GR 62/37-71-, 1990. This was determined by P McCarthy and is new to the county.

P M Earland-Bennett

LITERATURE PERTAINING TO BRITISH LICHENS - 8.

Compiler's comments. The aim of this continuing series is to inform readers of publications dealing with British lichens, lichenicolous fungi, and lichen vegetation. To assist those who like to update their checklists, I will endeavour to mention new species reported for Britain and Ireland (prefixed by *) and any nomenclatural changes. [Incidental remarks by myself are given in square brackets.] The current entries lean heavily towards the lichenicolous fungi, a reflection of the surge of interest in these fungi sparked off in recent years by David Hawksworth.

Unless I hear a loud howl of disapproval, articles appearing in the *Lichenologist* will no longer be included - all members are expected to read it!

Many local British journals are not seen by me at Edinburgh, so I extend a plea to authors to inform me of their papers (preferably by sending a reprint!) so that these can be included in this series.

Finally, I extend my thanks to my predecessor, Jack Laundon, for his previous endeavours in compiling this series.

Lichenologist 22(2) was published on 11 May 1990 and *Lichenologist* 22(3) on 15 August 1990.

ALSTRUP, V & HAWKSWORTH, D L 1990. The lichenicolous fungi of Greenland. *Meddr. Grönl., Bioscience* 31: 1-90. Keys and information to 124 lichenicolous fungi are provided, with many of the treated species occurring (or likely to occur) in the British Isles. *Geltingia* Alstrup & D Hawksw. is divided and includes *G. associata* (Th. Fr.) Alstrup & D Hawksw. (syn. *Lecidea associata*). *Verrucaria peripherica* Taylor, long since lost in the synonymy of *Phaeospora parasitica*, is transferred as *Weddellomyces periphericus* (Taylor) Alstrup & D Hawksw.

BREUSS, O 1990. Die Flechtengattung *Catapyrenium* (Verrucariaceae) in Europa. *Stapfia* 23: 1-153 + 21 pp. of maps, drawings and plates. All ten British species are treated, including **C. boccanum* (Servit) O. Breuss, **C. daedaleum* (Krempelh.) B. Stein, **C. pilosellum* O. Breuss, *C. rufescens* (Ach.) O. Breuss [not a synonym of *C. lachneum*], **C. squamulosum* (Ach.) O. Breuss [the commonest lowland species], and *C. waltheri* (Krempelh.) Körber.

DIEDERICH, P 1990. New or interesting lichenicolous fungi. 1. Species from Luxembourg. *Mycotaxon* 37: 297-330. **Abrothallus prodiens* (Hoffm.)

Dieder. on *Hypogymnia physodes* is reported from E. Ross, and the genus *Marchandiomyces* Dieder. & D Hawksw. is described to accommodate *M. corallinus* (Rob.) Dieder. & D Hawksw. (syn. *Illosporium corallinum*). Many other potentially British species are described. [A later paper in this series will deal with the author's collections on the BLS meeting on Skye in 1988.]

HAFELLNER, J 1989. Studien über lichenicole Pilze und Flechten VII. Über die neue Gattung *Lichenochora* (Ascomycetes, Phyllachorales). *Nova Hedwigia* 48: 357-370. *Epicymatia thallina* is shown not to be a synonym of *Stigmidium dispersum* but to belong to *Lichenochora* Haf., as *L. thallina* (Cooke) Haf. This new genus includes 5 other species.

HALE, M E & FLETCHER, A 1990. *Rimelia* Hale and Fletcher, a new lichen genus (Ascomycotina: Parmeliaceae). *Bryologist* 93: 23-29. *Rimelia* encompasses the *Parmelia cetrata* group which includes *P. reticulata* (= *R. reticulata* (Taylor) Hale & A Fletcher). [To date few splits of *Parmelia* s. lat. have found general acceptance by those working on European floras.]

KNOPH, J -G 1990. Untersuchungen an gesteinsbewohnenden xanthohaltigen Sippen der Flechtengattung *Lecidella* (Lecanoraceae, Lecanorales) unter besonderer Berücksichtigung von aussereuropäischen Proben exklusive Amerika. *Bibliotheca Lichenologica* 36: 1-183. Although this monograph deals with extra-European taxa several British species are treated, including *Lecidella asema* (Nyl.) Knoph & Hertel (syn. *L. subincongrua*). The type of *L. prasinula* is shown to be *L. scabra*. [The identity of *L. prasinula* auct. is discussed by the author in a paper now in press.]

MATZER, M & HAFELLNER, J 1990. Eine Revision der lichenicolen Arten der Sammelgattung *Rosellinia* (Ascomycetes). *Bibliotheca Lichenologica* 37: 1-138 + 8 pp of plates. Lichenicolous species traditionally placed in *Rosellinia* or *Adelococcus* are revised. The following British '*Adelococcus*' species are included in *Roselliniella* Vainio: **R. atlantica* Matzer & Haf. (on *Parmelia mougeotii*), *R. cladoniae* (Anzi) Matzer & Haf. (on *Cladonia* spp.), and *R. nephromatis* (Crouan) Matzer & Haf. (on *Nephroma laevigatum*). British material of '*A. groedensis*' is stated to be either *R. atlantica* or the bark fungus *Peridiothelia fuliginecta* (Norman) D. Hawksw.

RAMBOLD, G & TRIEBEL, D 1990. *Gelatinopsis*, *Geltingia* and *Phaeopyxis*, three helotialean genera with lichenicolous species. *Notes R. bot. Gdn Edinb.* 46: 375-389. British species treated include: in *Gelatinopsis* Rambold & Triebel, **G. ericetorum* (Körper) Rambold & Triebel (on

Baeomyces roseus); and in *Phaeopyxis* Rambold & Triebel, *P. punctum* (Massal.) Rambold, Triebel & Coppins (syn. *Lecidea punctum*), and **P. varia* Coppins, Rambold, & Triebel (on *Trapeliopsis gelatinosa*). Two species of *Skyttea* are transferred to *Unguiculariopsis* Rehm: *U. lettai* (Grumm.) Coppins, and *U. refractiva* (Coppins) Coppins. A key to lichenicolous helotialean species is provided.

TRIEBEL, D 1989. Lecideicole Ascomyceten. *Bibliotheca Lichenologica* 35: 1-278. A monograph of lichenicolous ascomycetes on species of the Lecideaceae s. lat. The text is in German but an English version of the key to species treated is provided. Several British taxa are dealt with and many more can be expected [a challenge!]. *Skyttea* Sherw. et al. (1981) is shown to be a synonym of *Rhymbocarpus* Zopf (1896) and three species are transferred: *R. elachistophorus* (Nyl.) Triebel, *R. nitschkei* (Körber) Triebel, *R. gregarius* (Sherw., D Hawksw & Coppins) Triebel. [See also RAMBOLD & TRIEBEL above.] *Phaeospora supersparsa* is changed to *Lasiophaeriopsis supersparsa* (Zopf) Triebel. *Merismatium lopadii* auct. brit. is shown to be either *M. discrepans* (Lahm) Triebel (on *Protoblastenia rupestris*) or *M. nigritlellum* (Nyl.) Vouaux (syn. *Polyblastia nigritlella*; on *Catapyrenium lachneum*). **Dactylospora purpurascens* Triebel on *Amygdalaria* and *Porpidia* spp. is cited from Cumberland and Perthshire. The generic name *Hymenobia* Nyl. (1854, nom. illegit.) is replaced by *Hymenobiella* Triebel and the British record of *H. aporea* (Nyl.) Triebel (syn. *Nectria insidiosa*) is confirmed (on *Lecidea* cf. *auriculata* from S. Aberdeenshire). The common *Muellerella pygmaea* is divided into three varieties: var. *pygmaea*, var. *athallina* (Müll. Arg.) Triebel, and var. *ventosicola* (Mudd) Triebel.

Brian Coppins

TREASURER'S REPORT ON THE ACCOUNTS FOR THE YEAR ENDED 31 DECEMBER 1989

The society has made a good surplus this year due mainly to the hard work of the Assistant Treasurer Jeremy Gray in persuading a number of members to pay their outstanding subscriptions, and to pay the current ones promptly. Another factor in generating the surplus was that there were no supplements produced with the *Bulletin* this year. It will also be noted that we have obtained a substantial increase in the Society's various accounts.

The large increase in subscriptions paid to other societies is due to the decision of the Council to support the valuable work of CABS by a one-off payment of £500.

During the year we purchased waterproof notepads and printed a new design of greetings card. These items, together with the many other new items to be produced by the Publicity Committee, should increase our income in future years. It was also decided to write down the value of some of the old stock of check lists, etc.

The new system of paying for three or five years' subscription in advance looks like being popular with members and will ease the work of the Assistant Treasurer.

The Society has received a generous bequest from a former member but due to legal difficulties in administration there may be some delay before we receive this sum.

Last but by no means least, my sincere thanks are due to John Sheard for so ably looking after the transatlantic members, to Jeremy Gray for coping so efficiently with the office of Assistant Treasurer and to Mr D E W Oliver for taking over auditing of the accounts.

Frank Dobson
Hon. Treasurer

AUDITOR'S REPORT TO THE BRITISH LICHEN SOCIETY

I have been unable to examine the Register of Members or confirm it is complete, or the account of The Royal Bank of Canada Saskatoon; neither have I checked the Imprest Account of the Secretary. However, in the context of the Society's turnover the amounts involved are not material.

Subject to the foregoing, in my opinion, the attached accounts prepared under the historical cost convention and the notes thereon give a fair view of the state of affairs of the Society and the income and expenditure of the Society for the year ended on that date.

D E W Oliver, FCCA, FCIB, ATII, APMI
Certified Accountant

Notes to the Accounts

1 Manager's remuneration

No officer of the Society received remuneration and none is due in the twelve months covered by these accounts.

2 Status

The Society is a registered charity, number 228850.

BRITISH LICHEN SOCIETY
EXPENDITURE & INCOME FOR THE YEAR ENDING 31/12/89

1988	EXPENDITURE		1988	INCOME	
	Printing and distributing			Subscriptions	12240.95
	The Lichenologist	9680.73		Less in advance 1990	(2658.00)
5808	Less profit sharing	(3448.41) 6232.32		Less refunds	(15.00)
	Printing and distributing			Add 1/5 life members	38.40 9606.35
	The Bulletin	1684.77	7398	Sales of stock	322.13
2519	Less receipts	(122.90) 1561.87	236	Greeting card sales	145.50
150	Subscriptions paid	568.21	182	Interest received	
154	Grants, Seminars etc.	597.70		Banks	2558.32
11	Library	-	993	Nat Savings Bank	1555.33 4113.65
		50.00	1210	Sundries	30.00
165	Bank charges	122.52	47	Donations	61.00
164	Secretarial and committee expenses	420.21	-	Profit on exchange rate	15.71
-	Printing and note pads	500.25			Total £14294.34
39	A.G.M. net	101.35	10066	Excess income over expenditure	4139.91
958	Sundry item in prior year	-	98		Total £10154.43
<u>£9968</u>		Total £10154.43	<u>£9968</u>		

BALANCE SHEET AS AT 31/12/89

LIABILITIES			ASSETS		
10888	Current Liabilities (Inc. advance subs.)	4009.61		Debtors	3316.41
192	Life members	153.60		Cash at Banks	13999.48
	Conservation fund	160.90		National Savings Bank	16760.60
161	Less expenditure	47.28 113.62		Stock	1988 919.34
307	Burnett/Wallace Memorial Fund	307.50	1574	Less written down	(496.09) 423.25
1000	Royal Society Grant (Gwynedd Flora)	1000.00	20691		
400	B.P. Internation Grant	400.00	14140		
	General Fund at 31/12/88	24375.50	919		
<u>24376</u>	Plus surplus for year	4139.91 28515.41			
<u>£37324</u>		Total £34499.74	<u>£37324</u>		Total £34499.74

FACILITIES FOR MEMBERS

Council would like to ensure that members who do not have access to departmental facilities of learned institutions are able to obtain any items necessary for their interest in lichens through the Society. The Publicity Officer is willing to help any member obtain items that they have experienced difficulty in purchasing. The questionnaire highlighted some of these things, eg. microscopes, slides, coverslips, mountants, stage micrometers, eyepiece graticules, chemicals, stains, instruments, handlenses, hammers, chisels, etc., etc. Whether it is equipment for laboratory-type work or field-work, please let me know if I can help.

As a first stage, I can offer members a stage micrometer and instructions to calibrate the actual magnifications of your microscope using the different objectives. Providing that you have an eyepiece graticule in one eyepiece (I can supply one if you haven't), you can borrow a stage micrometer, calibrate the scale and work out the magnification factors for the different objectives - once you have done it you will always be able to accurately make measurements through your microscope using the eyepiece graticule. I will have one or two stage micrometers available at the AGM as well as various hand lenses. Perhaps you would like to purchase a good quality hand lens, or maybe buy a cheaper second one in case of emergency, or to lend to a friend who shows interest.

Tim Moxham

NEW ITEMS FOR SALE

In response to the demand evident in your replies to the questionnaire distributed with the last edition of the *Bulletin*, the Society will publish full colour postcards of lichens. It is planned to produce a pack of 16 cards illustrating lichens across the pollution scale, morphological differences and lichen communities. The cards will be available at £2.75 per pack from the Assistant Treasurer from early December and of course at the AGM in January.

An order for various garments, such as sweaters, sweatshirts, hooded sweatshirts, polo/golf shirts, T-shirts, embroidered badges and ties has been placed with a firm near Bath. These articles will be on display (and for sale) at the AGM to allow members to see the range of products which are available by order from the Publicity Officer. The embroidered stitching on these garments is done by producing a Jacquard; this is a computerised tape which instructs the stitching machine what pattern and colour to produce. It is possible to build a loop into this programme which

tells the machine whether or not to stitch the lettering as well as the logo. In the Publicity Committee Meeting and at Council there was some discussion whether or not to include the name of the Society on these items but now we have a choice. A range of colours and sizes will be available but, of course, it would be impossible to hold stocks of every available combination of colour and size of garment. Consequently orders will be taken at the AGM and regular orders will be placed throughout the year.

Some attractive earthenware mugs will also be available in November if you are struggling for ideas for Christmas presents.

For prices and other details, please see 'Other Items for Sale' at end of the *Bulletin*.

Tim Moxham

NEW MEMBERS

The following new members joined the Society between March and October 1990 (J M = Junior Associate Member).

Dr K J ADAMS, 63 Wroths Path, Baldwins Hill, LOUGHTON, Essex, IG10 1SH.

Mr K M ANDERSON, 7 Wallace Park, Lisbarnett Road, KILLINCHY, Co Down, BT23 6AP, Northern Ireland.

Mr D BANGS, 73 Whidborne Buildings, Tonbridge Street, LONDON, WC1A 8HE.

Dr U BECKER, Verdingerstrasse 15, D-5000 Koln 60, GERMANY.

Mr C C BRATT, Santa Barbara Museum of Natural History, 2559 Puesta del Sol Road, Santa Barbara, California 93105, USA.

Mr G BROWN, Botanisches Institut, Abt. Fur Exp. Okologie, Kirschallee 1, 5300, Bonn 1, GERMANY.

Mr P BUCKLE, 14 Roughdown Road, BOXMOOR, Hertfordshire, HP3 9BJ.

Mr C J CHARLTON, Dowland House, Grenville College, BIDEFORD, North Devon.

Mr M DIETRICH, Lorbeerstrasse 5, 3018 Bern, SWITZERLAND.

Dr K FALK, Institute for Polar Ecology, University of Kiel,
Olshausenstrasse 40-60, 2300 Keil 1, GERMANY.

Miss A FOREMAN, 22a Hertford Road, Clare, SUDBURY, Suffolk, CO10
8QH. (J M)

Mr N JONES, Pl 495, St Mary's College, TWICKENHAM, Middlesex, TW1
45X. (J M)

Mrs C KELLER, Systematisch-Geobotanisches Inst., Altenbergrain 21,
CH 3013 Bern, SWITZERLAND.

Miss KWANG-HEE MOON, 2-809 Kyung-nam apt, Pan-Po 2 Dong, Seo-
Cho-Ku, Seoul, KOREA.

Mr R H NEEDHAM, 489 Dunsbury Way, HAVANT, Hampshire, PO9 58E.

Ms A NIEBEL-LOHMANN, Huuskoppel 33, 2000 Hamburg 6, GERMANY.

Mrs Y M PEARCE, Kennels Cottage, Willington Road, COPLE,
Bedfordshire, MK44 3TH.

Mrs S G ROWLATT, Shotts Farm, Staunton, GLOUCESTER,
Gloucestershire, GL19 3NZ.

Mr J SIZER, 46 Scaview Road, MUNDESLEY, Norfolk, NR11 8DJ. (J M)

Mr M D SMITH, Glen Dare, Brinsea Road, CONGRESBURY, Avon, BS19
5JF. (was J M now Ordinary.)

Dr R M VEALL, 1 Plant's Close, East Wellow, ROMSEY, Hampshire, SO51
6AW.

Mr R WEBB, 2 Barton Terrace, DAWLISH, Devon, EX7 9QH.

Mr J WINHAM, 18 Orchard Brae Gardens, EDINBURGH, Lothian, EH4
2HJ.

Mr A W WOODS, Byhojen 3, 3600 Frederikssund, DENMARK.

PUBLICATIONS FOR SALE

All prices include postage and packing
(Dollar Rates are two times the Sterling Rate)

Write to **Academic Press, 24 Oval Road, London NW1 7DX, UK** asking for pro forma invoice (and stating for how many years you have been a member of the Society) for:

The Lichenologist backnumbers 6-7, 9-21 available as complete Volumes onlyper volume
for members £34.40
for non-members .. £86.00

Write to **Mr J M Gray, Myrtle Cottage, Church Lane, Kingston St. Mary, Taunton, Somerset, TA2 8HR, UK** sending remittance with order (payable to The British Lichen Society) for:

Bulletin backnumbers
Nos 1-47 available in sets of Nos. 1-12; 13-18; 19-21; 22-23; 24-25; 26-27; 28-29; 30-31; 32-33; 34-45; 36-37; 38-39; 40-41; 42-43; 44-45; 46-47; (photocopies of A4 sheets)per set
Nos 48-55 and 58-66 (normal format)each
for members £1.50
for non-members .. £3.00

Bibliographic Guide to the Lichen Floras of The World (2nd edition) by Hawksworth and Ahti (reprint from *Lichenologist* 22:(1) £5.00

Checklist of British Lichen-forming Fungi, Lichenicolous and Allied Fungi by Hawksworth, James and Coppins (1980)
for members £4.00
for non-members .. £6.00

Guide to the Literature for the Identification of British Lichens by Hawksworth (1970) £1.00

Horizons in Lichenology by Dalby, Hawksworth and Jury (1988) .. £2.50

Key to the Lichen-forming, Parasitic, Parasymbiotic and Saprophytic Fungi by Hawksworth (1983)
for members £3.00
for non-members .. £5.00

Guide to Microchemical Techniques for the Identification of Lichen Substances by White and James (1985) £1.50

Lichen Photography by Dobson (1976) (photocopies of A4 sheets) 50p

T-shirts with screen-printed full chest motif of BLS logo encircled by the words "British Lichen Society". Please specify size and colour options.

- 1 Size: 24/26", 28", 30", 32", S, M, L, XL, XXL.
- 2 Colours: sky, bottle green, grey, gold, black, navy, royal, pastel yellow, white, kelly green £8.00

Badges - embroidered from the same Jacquard as the breast-pocket size motif on the sweaters and sweatshirts.£3.00

Earthenware mugs (white) with coloured logo on both sides and the words "British Lichen Society" below. £3.00

Postage - please add the appropriate postage below

- UK..... £1.00
- Overseas surface rate . £2.00
- Overseas airmail £5.00

All the above items will be available for sale at the AGM though sweaters, sweatshirts and T-shirts will only be available in limited colours and sizes - orders will be taken.

Please send orders to T H Moxham, Dept. of Plant Sciences, University of Bath, Claverton Down, Bath, Avon, BA2 7AY, UK sending payment with order. Cheques payable to "British Lichen Society".

For overseas members requiring publications from Jeremy Gray and other items from Tim Moxham, you only need order from one person and send one cheque or International Money Order.

THANK YOU

It occurred to me the other day that so intent have I been in assembling articles into Bulletins and negotiating with printers that I have frequently forgotten to thank authors for their contributions. Most will probably feel that seeing their article appear in the Bulletin is thanks enough but I am also personally grateful since I would very soon begin to feel uncomfortable if copy did not appear as the publication date drew near! So many thanks to all the 1990 contributors, and to my trusty proof readers Albert, Oliver and Sandy, and also to the typist Jacqui Clay. Merry Christmas and a Happy New Year to all our readers. (Ed).

BRITISH LICHEN SOCIETY
OFFICERS 1990

- PRESIDENT** D H S Richardson, DPhil, FTCD., School of Botany, Trinity College,
University of Dublin, Dublin 2, Ireland
- VICE-PRESIDENT AND TREASURER** F S Dobson, FLS, 57 Acacia Grove, Malden, Surrey.,
KT3 3BU.
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F H Brightman, BSc, FLS, South London Botanical Institute, 323 Norwood Road, London
SE24 9AQ.
F S Dobson, FLS, Address under 'Vice President and Treasurer'.
O L Gilbert, PhD, Department of Landscape Architecture, The University, Sheffield, S10 2TN
D J Hill, DPhil, Department of Continuing Education, The University, Bristol BS8 1HR.
- REFEREES (Advanced)**
B J Coppins, PhD, Royal Botanic Garden, Inverleith Row, Edinburgh EH3 5LR. (*Bacidia* and
Micarea spp. only)
A Fletcher, PhD, Leicestershire Museums Service, 96 New Walk, Leicester LE1 6TD. (Marine
and maritime lichens.)
D L Hawksworth, DSc, FLS, FIBiol, CAB International Mycological Institute, Ferry Lane, Kew,
Surrey TW9 3AF (Lichenicolous fungi).
P W James, BSc, FLS, Department of Botany, The Natural History Museum, Cromwell Road,
London SW7 5BD.
J R Laundon, FMA, Department of Botany, The Natural History Museum, (as above)
F Rose, PhD, Rotherhurst, 36 St Mary's Road, Liss, Nr Petersfield, Hants GU33 7AH (Corticolous
lichens).
G Salisbury, 38 Lostwithiel Street, Fowey, Cornwall. (Thelocarpaceae).
J W Sheard, PhD, Address under 'Regional Treasurer'. (*Buellia*, *Rhizocarpon*, *Rinodina*.)
L Tibell, PhD, Institute of Systematic Botany, University of Uppsala, PO Box 541, S-751 21
Uppsala 1, Sweden. (Caliciales s. lat.).

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BULLETIN 67. Issued by the British Lichen Society, c/o Department of Botany, Natural History Museum, Cromwell Road, London, SW7 5BD (Telephone 071 589 6323 ext 552). Edited by P.D. Crittenden, Department of Botany, The University of Nottingham, Nottingham, NG7 2RD, who is author of all unsigned articles. The view of contributors are not necessarily those held by the British Lichen Society.

Printed by Trent Print Unit, University of Nottingham.

ISSN 0300 - 4562