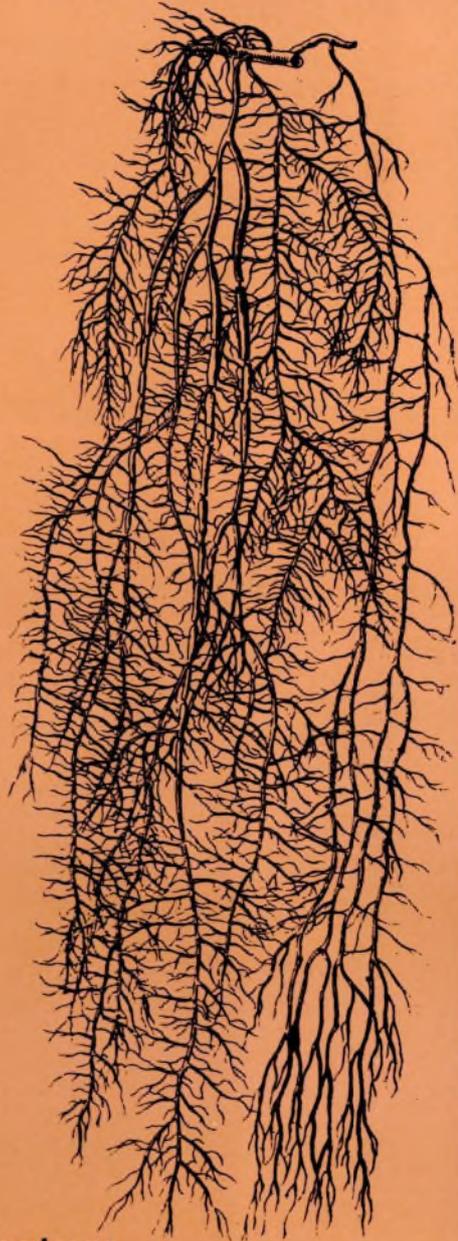


No. 59

Winter 1986

**BRITISH
LICHEN
SOCIETY
BULLETIN**



**Edited by O.L. Gilbert,
Dept. of Landscape Architecture,
The University, Sheffield S10 2TN**

Subject to the agreement of members at the Annual General Meeting during 1987 editorship of the Bulletin will be taken over by Frank Brightman, South London Botanical Institute, 323 Norwood Road, London, SE24 9AQ, to whom material intended for publication should be sent. After a sabbatical year I shall resume as editor from 1st January 1988.

Oliver Gilbert

Revelations of a Lichen Illustrator

To be a lichenographer you need some pencils, pens, brushes, inks, paints, paper, your husband's microscope, a little patience and a lot of guidance from a lichenologist (particularly if your formal study of botany, like mine, never progressed beyond the broad bean). Some lichens will also be useful.

To illustrate a species is not the same as to be able to recognise it from a few key features; it is rather to reconstruct it on paper, and lichens do not follow the rules of normal plants (e.g. broad beans) - they have their own arcane subtleties, full of pitfalls for the unwary (K.L. Alvin, c. 1974 "Where are the helmet-shaped soralia on this Physcia adscendens you've drawn?" CD: "er??" ... they had been eaten by mites, and CD had drawn what was still visible).

When starting on a new plant, the first morning is spent placing the available specimens in a row, and trying to work out what they have in common (see Fig. 1). It is necessary to compare the centre of thallus with the edge, look at overall colour and texture, structure of lobes/squamules/areolae, presence and density of fruits. Sketches are made, and the literature consulted. Questions are formulated... and the lichenologist patiently answers them over the telephone.

A single specimen will hardly ever suffice for an illustration (how do photographers manage?). One crust has good bits in the middle, another shows a decent glimpse of a prothalline margin (edges are always a problem: in nature your plant is often part of a mosaic but the lichenographer must show it more or less isolated for clarity which means that it has an unnaturally long 'coastline'), while a third shows the colour particularly well. A hazard with this kind of 'hybridisation' is that taxonomists may later split the single species being portrayed...

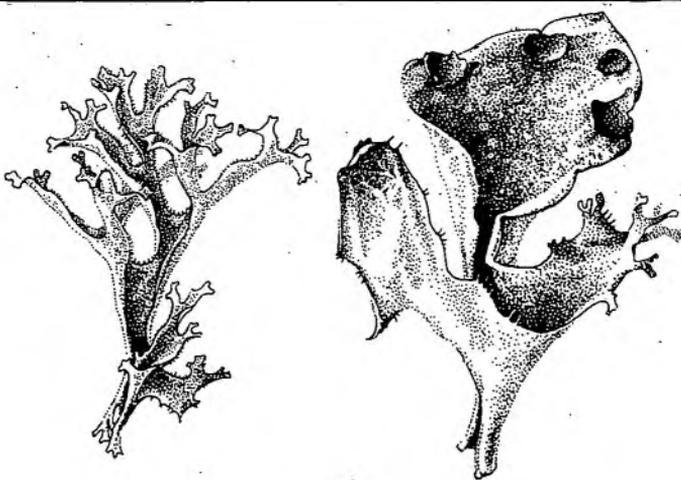


Figure 1

Cetraria islandica xl, two specimens from the same wood near Kongsvinger, Norway (reproduced by permission of the Field Studies Council)

Ideally all specimens would be newly gathered; in practice for 'Maritime Lichens' I am using my husband's herbarium, with a number of specimens collected recently from Shetland to show the colour when living. These are supplemented by material from the Natural History Museum, representing a greater range of localities as well as including the less common species.

Drawing begins with a dagger-sharp 4H pencil. Hundreds of areolae are drawn as accurately as possible from the specimens - their overall pattern is important but they cannot be improvised any more than can the lobes of a lichen rosette, though a few may be judiciously interpolated or extended subsequently ("If I were that lobe, where would I grow to next?" - one almost has to imagine being a lichen ...). Fruits are added, sometimes from another specimen. When that is completed, it is all re-drawn again over the top with a fine brush, but this time a little tone is added. A wetter layer of paint, approximating to the main thallus colour, is applied over the drawing. Alternate dryish layers of brush drawing and wetter colour washes ensue - usually at least five in all, and often more, in order to build up the necessary depth of colour and strength of shadows. It is a laborious method, adapted with the addition of white from that used for flowering plants by Francis Bauer, but I have not found an easier method which works well.

An enlargement may be needed now and the specimens are re-examined under the microscope - surely there must be a tiny fragment somewhere which, when enlarged, says it all? Ideally it would have a range of areolae from actively growing edge to mature centre, with fruits to match. Gradually I begin to see how the plant works visually, how for example the perithecia of Verrucaria fusconigrescens emerge in varying numbers, grow, mature and degenerate. Unlike those of V. mucosa they do not leave small craters - instead the walls of the perithecia persist as black shiny raised rings and crescents. Round dark fruit-sized stains found on the thallus baffled me at first (were they a fungal infection to be left out or - equally irrelevant to my illustration - traces of old junction lines between merged thalli?), but they appear to be lingering reminders of the sites of defunct perithecia and seem characteristic of the species. Such observations and many more, while not strictly scientific, are vital in order to build up a meaningful illustration of each plant. These enlargements of crustose species are probably the most satisfying illustrations of all to tackle. There is a kind of intimacy with the structure of the plant, and the chance to draw a few areolae in detail (see Fig. 2) instead of several hundred so small as to be scarcely visible, and the colours can be enjoyed to their full.

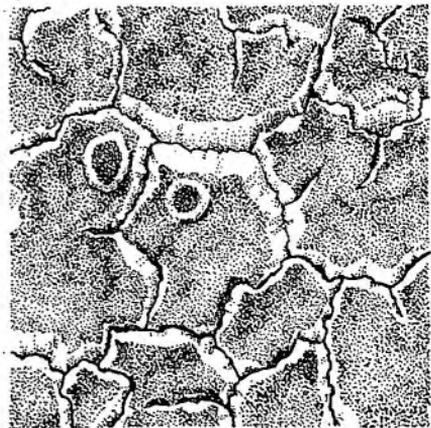
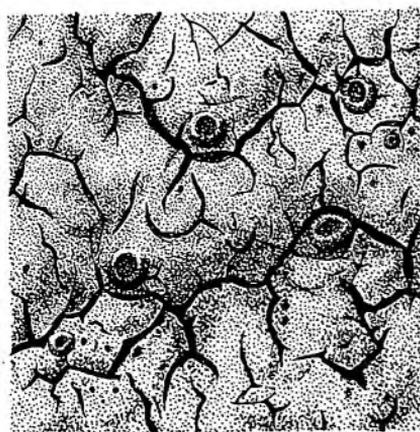


Figure 2

Patterns of areolae

(a) Lecanora helicopsis x 20, from Morfa Nefyn, Caernarfon. Claire Dalby 1986.

(b) Lecania erysibe x 20, from Nibon Shetland. Claire Dalby 1986.

The appearance of smooth glaciated rocks embellished with curved, often unfinished-looking cracks compared with a jigsaw of grubby, rumbled, stale bread. Cracks usually look more convincing if you make them dark: they descend into shadow; but the bared interior of L. erysibe is paler than the surface and this contributes to the plant's characteristic appearance.

When a few paintings have been amassed (and when working really hard I manage to complete about one species a week), it is time to take them to the lichenologist and hope he will approve. We will also discuss the next few species to be tackled. I have been very lucky in my lichenological advisors, working first for Ken Alvin who introduced me to these amazing plants, and more recently for Peter James. Meanwhile day to day advice is given by my husband, Kery.

Designing the wall charts

('Lichens and Air Pollution', 1981, and 'Maritime Lichens' in progress, publisher British Museum (Natural History) and B.P. Education Service).

In theory each species is allotted an equal amount of space, at least to start with. In 'Lichens and Air Pollution' they are arranged in vertical columns from left to right according to their pollution tolerance, and the columns vary in width according to the number of species that they contain. In 'Maritime Lichens' they are placed in horizontal bands according to height above sea level. The plants can then be arranged within their zones according to other considerations. With 'Lichens and Air Pollution' I made sketches (many, I confess, from imagination), then cut them out and physically churned them around on a blank sheet with just the columns ruled in. I discovered that if I drew in two largish branches, the oak epiphytes could be shown on one and the ash epiphytes on the other, while this arrangement gives some necessary visual structure to the whole design. The branches span several columns but the lichens are all attached firmly in their own zones. Plants growing on tree trunks were then placed on their own bit of bark, or just loose, for variety. It was originally suggested that I should show a landscape in the background, but I felt this would look far too confusing so banished it to a strip at the bottom.

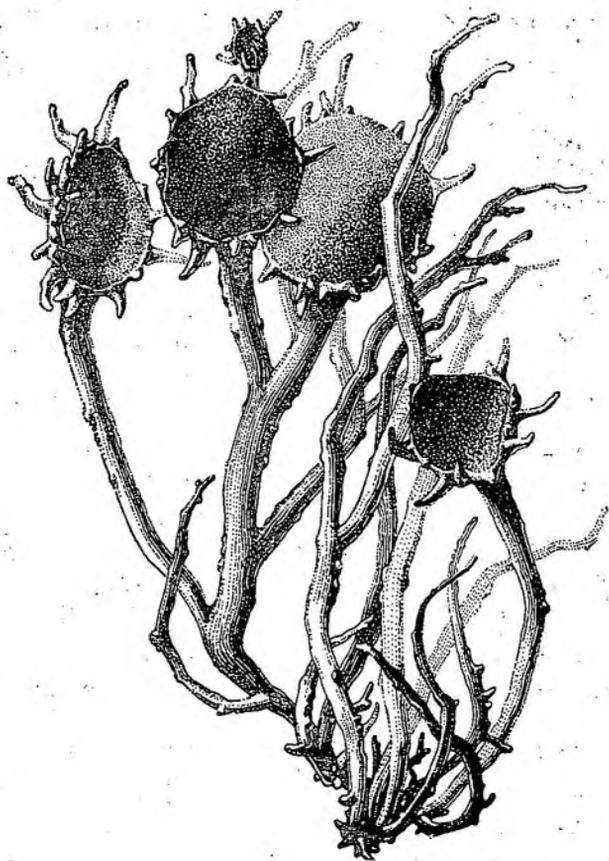


Figure 3

Cornicularia normoerica x 12 from Sør Flatanger, Norway. Claire Dalby 1986

In 'Maritime Lichens' most of the species illustrated are crustose, therefore it was necessary to show their substrates. However, if each lichen were displayed like a herbarium specimen on its own fragment of rock the result would be visual chaos, like crazy paving with the white gaps between the rocks looking far more prominent than the much subtler contrast between plant and stone. The best solution seemed to be to provide a continuous wall-chart-sized rock face for the crustose lichens to grow on, with an open chink to show off the species of Ramalina and Roccella, as well as to let a little light into a fairly sombre tonal scheme. A suitable rock was located at Manorbier, Pembrokeshire, and was drawn in chalk on a bitterly cold November day, and a few hefty lumps of the fine-grained sandstone were carted home as aides-memoire. I chose a grey rock rather than the exuberant red of most of that coastline and hope that the resulting background simply suggests 'acidic sedimentary rock' without being too specific or over assertive. A skilled field geologist may still feel uneasy...

The lichens were then sketched roughly in their correct zones on a thin sheet laid over the charcoal rockscape, but arranged where possible with related species near each other for comparison, while ornithocoprophilous species are in a roughly vertical column below a bird perch ("Oh, not another photograph of bird-splat?" "Yes please, it's not something that I can just make up").

It is impracticable to paint the whole wall chart on a single sheet of paper (it would have to be 97 x 73 cm, with a monster drawing board to match, as the art work is reduced to 5/6 in the printing) so I have divided up the rock surface along convenient cracks into a number of irregular segments. A master sheet is ruled with a grid, the appropriate part of which is traced onto each painted sheet to ensure (I hope) accurate joins. Careful planning of each segment is essential and includes leaving enough space for species names (hint to taxonomists: I pray that any new names will be no longer than the old versions - it is amazing how unstable the 'stable' nomenclature is over just two years), as there is no opportunity for moving things around once they are painted.

As work proceeds some species inevitably spread beyond their original boundaries; occasionally this is in order to make the

most of a patch of bright colour (Parmelia caperata and Xanthoria parietina in 'Lichens and Air Pollution') while sometimes it is simply because I happen to like a plant particularly (Lecanora poliophaea in 'Maritime Lichens').

I calculate that for 'Maritime Lichens' I shall have covered nearly 5,500 sq.cm six times over with my pencil drawings and five layers of paint. It is certainly one way of becoming acquainted with lichens....

CLAIRE DALBY

Nominations required for Officers and Council Members

Nominations for Officers for 1987 and three members of Council for 1987 - 88 should be sent in writing to the Secretary, T.H.Moxham, please. No person should be nominated without their consent. Mr. Mike Gosling, Mrs. Paulette McManus and Dr. Francis Rose retire from Council and are not eligible for re-election this year as Council members. Dr. Oliver Gilbert has asked to have a "Sabbatical" year off as editor of the Bulletin, and Frank Brightman has agreed to be nominated by Council to take on the office for next year (1987).

Joint British Lichen Society/Linnean Society Meeting

"Horizons in Lichenology"

"Variations in Lichens"

Thursday February 19th 1987

and Friday February 20th 1987

To be held at the Linnean Society of London, Burlington House, Piccadilly, London.

To mark the bicentenary of the Linnean Society of London a number of meetings with related societies have been arranged; the British Lichen Society is holding a meeting entitled "Horizons in Lichenology" to mark the event. It has been decided to add an additional meeting, "Variation in Lichens", and to link these with the AGM which for the first time for many years will be held in February rather than early January, (but still at the B.M.).

The ever-successful book sale is to be held at 6.30pm on Friday in the Library of the Linnean Society with Frank Brightman and Mark Seaward officiating with the gavel.

Please bring along any books, reprints, illustrations etc., of lichenological, botanical or natural history interest, and all sales will be split 50/50 between the person selling the item and the Society. If you are unable to attend but would like to sell any items, please make arrangements with either Mark Seaward or Frank Brightman, who will also be available to give advice on suitable reserve prices.

There are, this year, two evening dinners for people to have an opportunity to meet lichenologists of home and abroad. The price of £10.00 (Thursday, dinner) and £5.00 (Friday, buffet) covers the full meal.

One of the biggest changes is that the first two days of meetings are to be held in the Linnean Society rooms at Burlington House, Piccadilly. IF YOU WOULD LIKE TO COME TO THESE MEETINGS PLEASE FILL IN A REGISTRATION FORM. Registration is necessary as we have applied for a substantial grant from the Royal Society to help cover the considerable expense involved in inviting overseas visitors to come and talk about their work, but we have to make, understandably, some contribution ourselves.

The programme that has been arranged for the Thursday joint meeting with the Linnean Society is aimed at covering some of the significant growth points in lichenology, but the Friday seminars are being kept deliberately informal and it is hoped that as many people as possible will be prepared to give a brief talk about their area of research. Although the title is "Variations in Lichens", we are not being bound by this.

Please fill out your registration form and send it to arrive not later than 30th January 1987, together with your cheque made payable to The British Lichen Society; Tim Moxham, Dept. of Plant Sciences, University of Bath, Bath, Avon, BA2 7AY, U.K.

HORIZONS IN LICHENOLOGY

Thursday 19 February 1987

at The Rooms of the Linnean Society, Burlington House, Piccadilly, London, W1V 0LQ.

Location Burlington House is on the north side of Piccadilly

mid-way between Green Park and Piccadilly Circus underground stations. The Rooms are entered by the door on the left in the archway.

Record. Papers will be published in due course in the Botanical Journal of the Linnean Society.

Registration Details of the registration fee, and charges to cover the cost of catering for Thursday 19 February are on the booking form.

PROGRAMME

09.30-10.15 Coffee and registration

10.25 Welcome by Professor W G Chaloner, President of the Linnean Society.

10.30-11.00 The variety of mutualistic fungus-alga associations and their evolutionary significance Prof D L Hawksworth, President of the British Lichen Society, (Commonwealth Mycological Institute, Kew). Mutualistic associations between fungi and either algae or cyanobacteria vary in complexity of structure and in biology and can involve three or even four partners. In some fungus groups mutualism is evolving while in others it is being lost. These provide clues to the evolution of ascomycete orders.

11.00-11.30 The establishment, individuality and growth of lichen thalli Prof Dr H M Jahns (Botanisches Institut, Johann Wolfgang Goethe-Universität, Frankfurt am Main). Research on the development of lichens from the natural habitat and successful culturing of thalli have shown an unexpectedly complex life-cycle. Numerous preliminary stages of development with a low degree of organization exist, and chimera and adaptations to the environment are common. These problems will be discussed with several species.

11.30-12.00 Horizons in the understanding of pollution sensitivity in lichens Prof D H S Richardson (School of Botany, University of Dublin). There are two ways in which lichens are used to monitor air pollution around urban and industrial centres. Both relate to the interesting physiology of these plants. Firstly, pollution zones can be defined by examining lichen distribution. Secondly, by analysing lichens it is possible to discover what elements are emitted from a source and define the fallout zone. Our understanding of the effects of air pollution on lichens is presented together with an assessment of the potential and problems of using lichens as monitors.

12.00-12.30 Developments in understanding chemical variation in lichens with reference to recent cultural studies

Prof W L Culberson (Department of Botany, Duke University, Durham, U S A). Although crossing experiments are still impossible for lichen-forming fungi, some assessment of the limits of gene flow is obtainable by chemically analyzing the progeny, cultured in vitro, of various chemotypes of uniform morphology that grew densely intermixed in nature.

12.30-14.00 Lunch £3.00 if booked, otherwise make own arrangements.

13.45 Linnean Society business

14.00-14.30 Plate tectonics and the distribution of cool-temperate

Southern Hemisphere macrolichens Dr D J Galloway (Botany Department, British Museum (Natural History), London). Several lichen genera speciate richly in cool-temperate areas of the Southern Hemisphere, being common in Nothofagus forest, subalpine shrubland and grassland habitats. Affinities of southern lichen vegetation are discussed in terms of plate tectonics, with particular reference to the families Lobariaceae and Pannariaceae.

14.30-15.00 Developments in lichenometric dating techniques and its application to historic structures

Mrs V Winchester (School of Geography, University of Oxford). Lichenometry is a technique which uses the size/age relationship of lichens to date stone surfaces. The main problems concern growth variations in response to environmental changes. Current work suggests that these problems may be mitigated and a study of two neolithic stone circles has shown promising results.

15.00-15.30 Foliicolous lichens: ecological and distributional

Preferences E Serusiaux (Departement de Botanique, Universite de Liege). Six ecological groups (in the sense of P Duvigneaud) and five chronological types are recognised in the world flora of foliicolous lichens. They are present throughout the tropical and subtropical zones but are particularly common in undisturbed rainforests at low elevation. Emphasis will be laid on their relict distribution in Europe and correspondence analysis performed to determine their phytosociological communities in a peculiar area.

15.30 Tea

16.15-16.45 Phytogeographical and ecological aspects of Lobarion communities in Europe Dr F Rose (Liss, Hampshire). Since 1968, the author has surveyed the lichen communities of European forests, from S.W. Norway to the Pyrenees, Tuscany and Austria. Lobarion communities are still widespread in most montane forests but in the lowlands are now largely restricted to the Atlantic coastal zone, evidently through forest management practices and air pollution.

16.45-17.15 Progress in the study of the lichen flora of the British Isles Dr M R D Seaward (School of Environmental Science, University of Bradford). Advances in our taxonomic, ecological and geographical knowledge of the lichen flora of the British Isles are qualitatively and quantitatively assessed. The growth of literature and the development of field and laboratory techniques are critically surveyed, complemented by numerical and chorological analyses. The evolution of a comprehensive programme of network recording, involving a multi-faceted approach, is described and its strengths and weaknesses evaluated. The present and future use of technological advances, particularly in respect of computer databases, is examined.

17.15-17.45 Discussion and closing remarks

19.30 Dinner, Imperial College, South Kensington.

VARIATION IN LICHENS

Convenor Dr D H Dalby

9.45 Coffee (Library)

10.30 Provisional list of speakers; order not finalised, and there may be changes.

Brian Coppins

Kerry Dalby

Oliver Gilbert

Thorsten Lumbsch

Alan Pentecost

12.30 Lunch (No formal arrangements)

14.00 Continuation of meeting

15.30 Tea (Library) (End of paper-reading meeting)

18.30 Buffet Dinner and B.L.S. Book Auction (Library, Linnean Society).

ANNUAL GENERAL MEETING, EXHIBITIONS, SLIDES AND FLORA WORKSHOP

Saturday 21st February 1987

To be held as usual, in the British Museum (Natural History)

- BUT NOT IN JANUARY.

The Annual General Meeting will be held in the Demonstration Room in the Dept. of Palaeontology (ground floor) at the British Museum (Natural History), Cromwell Road, London, SW7 5BD at 10.30 a.m. Saturday 21st February 1987. Following the A.G.M. there will be the usual exhibition meeting and members' slide show, but after lunch, instead of the normal lecture meetings - which will have been held on the previous two days, there will be a "Flora Workshop" where members will have a chance to discuss the progress of the new British Lichen Flora, and to try out some of the keys. Please do try to attend and see what progress is being made. This will be a good opportunity to make use of the microscopes left to the Society by Alice Burnet.

Programme

- 10.00 Museum opens to the public
- 10.30 A.G.M.
1. Apologies for absence
 2. Minutes of last A.G.M.
 3. Matters arising.
 4. Officers' reports.
 5. Meetings 1987-88.
 6. Proposal to alter RULES of the Society.
Resolution 1. Subscriptions line 5
'....payment of the subscription'.
to read '.... payment of the current
subscription'.
 7. Election of Auditor.
 8. Election of three Council members.
 9. Election of Officers.
 10. Any other business.
- 11.30 Exhibition Meeting
- 12.30 Lunch (No formal arrangements)
- 14.00 Members Slide Show
- 14.30 Flora Workshop
- 17.00 Close

Lichenologia

Across the Channel on the islands of Guernsey and Herm, Peter James led a party of Lichen Society members on an excursion to study the lichen flora which, apart from abundant Roccella phycopsis and the usual maritime lichens along the shore, tends to be continental rather than oceanic. There were no Stictaceae, and not even many species of Peltigera; while on the other hand, species like Fulgensia fulgens could easily be found in the rabbit grazed turf. The weather was good on the whole but deteriorated towards the end of the trip. One night the tail end of a hurricane that had been much publicised in the newspapers and on television tore down the Union Flag, complete with its jackstaff, from the front of the hotel and strewed it along the beach. Another accident that occurred before the party arrived also had a noteworthy result. Someone had driven his motor car through the wall of a churchyard and shattered the memorial stone on a grave. This enabled one member to achieve a life-long ambition, that is, to collect a lichen specimen complete with substrate from a tombstone.

At the other end of Britain, at Cuthill Links in Sutherland, British Rail proposed to shorten the railway journey from Aberdeen to Wick by laying a new track alongside Dornoch Firth. This would have involved raising an embankment straight across what appeared to the railway engineers, and to others, to be merely waste ground. However when apprised that the Links are designated as a Lichen Society Grade 2 site, the Nature Conservancy Council entered a protest. British Rail has now postponed the scheme indefinitely due to shortage of capital.

What do you call the photosynthetic cells in lichens? The Reverend Crombie (author of the first volume of the Monograph of British Lichens) in the last century used the word 'gonidium'. He never accepted Schwendener's symbiosis hypothesis, and to the end of his life he vehemently asserted "there is no algal in the lichen". For most members of the Lichen Society it was no doubt Ursula Duncan's book that made the word 'phycobiont', coined by Scott in 1957, the familiar and commonly used word. Not everyone is satisfied with it, however. Roger Lallement now offers 'phycosymbiote' as "plus correct que 'phycobionte' introduit par les anglo-saxons". Clauzade and Roux don't like this either, and prefer 'couche algale', which Crombie would have recognised (and

violently objected to).

Kingsley Amis is on record as saying "the great art of writing a column is getting the readers to do the work, certainly they often have an urge to draw your attention to things. As mentioned before, reference to the facts stated here will be supplied on application through the editor; but the names of some informants may be withheld in order to protect the guilty. Last time I mentioned a remarkable monotypic American genus with the rather odd name Masonhalea. There are of course, far odder names amongst lichens; the Irish monotypic genus named Blarneya by David Hawksworth and others comes readily to mind. But Albert Henderson has pointed out that it is the entomologists who specialise in really peculiar epithets; apparently there is a pyralid moth that has been validly named Leonardo davincia. Odd names are not a nuisance, though; it is name changes that people complain about. Inevitably name changing, like fate, as Lorelei the blonde whom gentlemen preferred, was apt to remark, "keeps happening". Recently Ted Anti and Mason Hale, who believe that the large genus Parmelia should be split up into smaller ones, changed Parmelia perlata to Parmotrema chinense partly for this reason and partly because Osbeck's description of the Dillenian specimen (using the epithet 'chinense') was published earlier than Hudson's (using the familiar epithet 'perlata'). They avoided making the corresponding combination in Parmelia; I wonder who will be the first to do this, thus linking his name with Osbeck's for ever ?

Oliver Gilbert drew my attention to the "nature conservation" set of commemorative postage stamps. All four of the stamps refer to the brute creation; no plants are mentioned in the leaflet supplied with the set, but lichens do appear in the backgrounds to the designs. They are quite realistically shown, but it is difficult to be sure of their identities. Francis Rose once suggested that it might be possible to obtain historical distributional data from the cryptogams pictured on the trunks of trees in pre-Raphaelite paintings. He found that lichens and mosses are portrayed quite realistically in these paintings, but that it is impossible to name them with certainty. The lesson of the stamp issue though is the sad one that the conservation of plants still has a very low priority with officials and with the public; and as for lichens, most people, like the railway engineers, don't even see them.

CUDBEAR

Etymological notes on lichen names. Part 2.

Carl Sumner Knopf has described biological etymology as "a veritable romance of linguistic adventure where research leads across seas and sands to natural habitats and original appellations". This second series of notes perhaps illustrates how detection and quest are the air the etymologist breathes.

8. Belonia nidarosiensis Like needles from Trondheim.

Derivation: belone (Greek) = a sharp point or needle (aptly descriptive of the long, thin spores of some species in the genus, e.g. B.russula; in B.nidarosiensis best applied to the long, sharp pointed tips of the spores).
nidrosia(Latin) = Trondheim, mid-Norway.

9. Chaenotheca ferruginea With gaping capsules, and rusty red.

Derivation: chaino (Greek) = I yawn, gape (a later present tense form of chasko).
theke(Greek) = case, container, box, chest; applied to the capsule of a moss.
ferrugineus (Latin) = light brown with some red admixture.

10. Hypogymnia physodes With the underside bare, and bladder-like.

Derivation: hypo - (Greek prefix) = below, under.
gymnos (Greek) = naked, unclad.
physa (Greek)"= air, air-bubble(used in the plural by Plato for wind in the stomach).
-odes(Greek suffix) = like, resembling.

11. Icmadophila ericetorum Lover of moisture and dweller in heaths.

Derivation: ikmas(Greek) = juice, moisture.
phileo(Greek) = I love, like.
erica(Latin) = heath.

12. Porina aenea Dotted with tiny holes and of a bronzed hue.

Derivation: poros(Greek) = passage (NB later Latin = small hole).
-inus (Latin suffix) = having, like.
aeneus (Latin) = of copper or bronze, brazen.

13. Rinodina exigua Huge-shielded, but paltry in aspect.

Derivation: riños (Greek) = a hide, skin (hence) a shield.
deinos (Greek) = awesome, terrible, huge.
exiguus (Latin) = inconsiderable, mean; probably referring to the small fruits of this species (or the sometimes ill-developed thallus).

14. Sarcopyrenia gibba With fleshy, pored fruits in swollen humps.

Derivation: sarx (Greek) = flesh, body.
pyren (Greek) = fruit-stone, kernel; here most probably applied in the mycological sense descriptive of a perithecium.
gibba (Latin) = a hump, swelling.

15. Thelotrema lepadinum With bored out pustules, each of them haltered.

Derivation: thele (Greek) = nipple, teat.
trema (Greek) = perforation, orifice, borehole.
lepadnon (Greek) = a broad leather harness strap, fastening yoke to neck, and passing between forelegs to girth.

A. HENDERSON

Country Diary: A day on Ben Lawers 1986

For the last few days we've been completely absorbed in lichens. Eating to gain energy to search for them, watching the weather for gaps in the rain to look for them, sleeping well only when it is impossible to hunt for them, even asleep remembering not to roll over and crush the packets which cover the floor of our little tents. I don't know if I'm lucky to be able to give such complete concentration to a subject or not.

Modern tents are highly sensitive 'rainometers', the tent fly-sheet acting as a drum which makes even drizzle sound quite heavy. As I drifted into consciousness there was an unfamiliar silence, so I stuck my head through the flap and could hardly believe our luck; a calm Lochan-na-Cat sat in a sunlit landscape and not a cloud in sight. It was only 5.30 am but I called to the others that it was a superb day and time to get up. Gradually tent zips opened and soon we were brewing tea and having a quick bowl of muesli. By 6.30, brimful of anticipation, we were heading for

the ridge.

The richest area on Lawers is the summit but we were delayed by mossy boulders at the foot of a slope - often a good niche - which yielded, among other things, Ochrolechia geminipara and a rare looking Caloplaca. Ahead of us a shepherd with four dogs was rounding up sheep; he used a different tone of whistle to instruct each dog. In superb working conditions we gradually botanised our way to the summit where we halted for a snack in a hollow know as the Crater. Brian (C) likes to stop every hour and a half or so for a drink of tea from his thermos, a bite of cake and to enjoy a quiet pipe. The view was of ranges of hills getting successively paler and more indistinct until the curve of the earth hid the remainder. Clouds still lay in some of the valleys and I felt relieved our camp lay above them or we might still have been in our tents cursing the weather. Refreshed, we began working in earnest very aware that we were in one of the most exciting spots for lichens in the country. It was especially rewarding to rekind species recorded in Victorian times such as Biatorella hemisphaerica, Peltigera venosa, Schadonia fecunda and Thelopsis melathelia which gave the mountain its reputation. Though we were adding new species to the British list at the rate of one an hour we were at the time unaware of this. Brian (C) imagined the old collectors like Lindsay, Holl and Admiral Jones were standing at his shoulder giving advice "No, over there, a little to the left sonny".

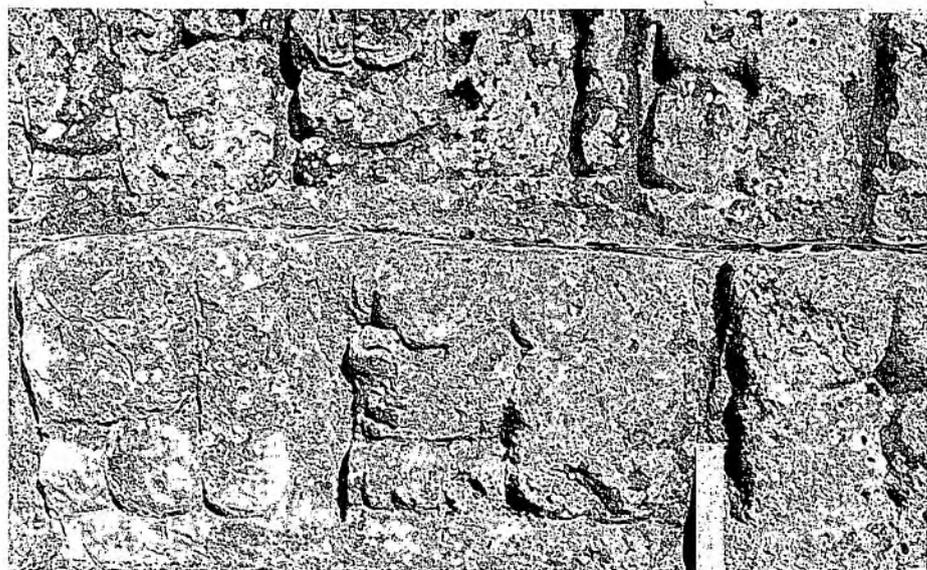
After working the Crater we moved into the short gullies which radiate out from it, as Brian (F) observed, in six visits this was the first time it had been free of cloud and we were at last able to appreciate the complex topography. It is difficult to imagine a more spectacular place in which to botanise than the gullies which are a treasure-house of rare alpines, both lichens and higher plants. Walls of gleaming mica-schist, ledges covered with spongy masses of soil, and species such as Collema ceranicum, Dacampia hookeri, Belonia russula and Gyalecta foveolaris so common that soon they no longer registered. Conditions were ideal and periodically I felt quite agitated not knowing whether it would be most effective to spend a long time examining a small area or to work extensively but less thoroughly. Time stood still. Thankfully we did not feel completely overwhelmed by this diversity as previous visits had provided a framework into which our observations could be fitted and most species had at least a

working name.

Just after midday, out of the clear summer sky freezing rain started to fall, soon a wind sprang up and the cloud descended. We put on gloves and pulled up our hoods but by 1.00 pm it was impossible to work effectively. As we stumbled back down the ridge I was already planning where to recommence once the weather improved.

Control of lichen growths on Mayan archaeological ruins

During the period 1895-1935 many archaeological ruins were rescued from dense jungle growth and opened up for tourism. As a consequence of the new light regime lichens, mosses, and algae started to flourish on the walls, altars, steps, buildings etc, obscuring features carved on the surfaces and, most importantly, contributing to weathering and breakdown of the stone. In this respect lichens are particularly troublesome. The photographs compare a portion of stairway preserved in a museum with a comparable stair in situ. Mechanical brushing to keep the stonework clean causes as much damage as the organisms. Mason Hale has been examining the problem in Guatemala and Honduras. The dominant lichen species are Phyllopsora corallina, Chiodecton antillarum, Physcia soresiosa, Leptotrema santense, Dirinaria piata and D. confluens. These were removed by spraying with biocidal solutions such as 'Clorox' or borates which act primarily on the algal component. Non-wettable crusts require several treatments. After observing trial plots a regime of three sprays at 6 month intervals was found to be effective in cleaning the monuments. Respraying with any one of the solutions every 2 - 8 years is thought to be adequate to prevent reinvasion. To complete the conservation programme consolidation solutions are applied.



Portion of an elaborately carved stairway preserved at Peabody Museum, Harvard (upper photo), compared with a similar stair in situ.

Photo: Mason Hale

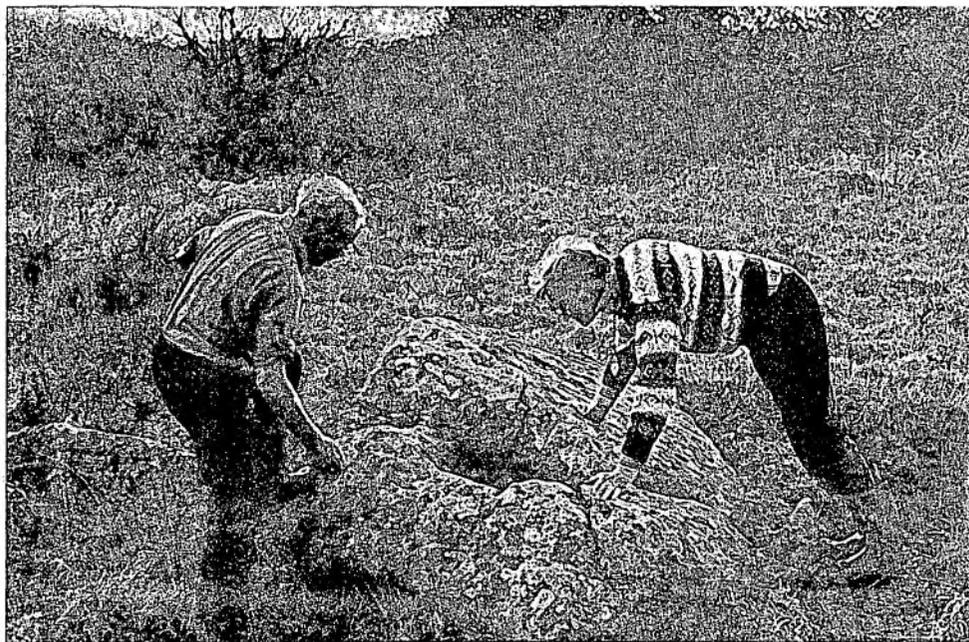
Down on the Lizard

This meeting was based at the Headland Hotel, Coverack, which had opened specially for us though I had explained to the owners that we would not be able to fill all seventy beds. The main attributes of the hotel are superb views, large rooms and a slightly rundown atmosphere which immediately makes you feel at home. One of the early alterations we made was to erect two enormous trestle-tables in the lounge having first moved out a lot of furniture the owner had moved in earlier that day. Thereafter the lounge was known as the lab. Every evening we gathered there and amid a tangle of extension leads, microscopes, books, dropper bottles and glasses we identified lichens, compiled lists, passed round specimens, packeted them, and talked till the early hours. One evening Peter James gave a talk on rare lichens of the south-west peninsula while we drank whisky and marvelled at his erudition.

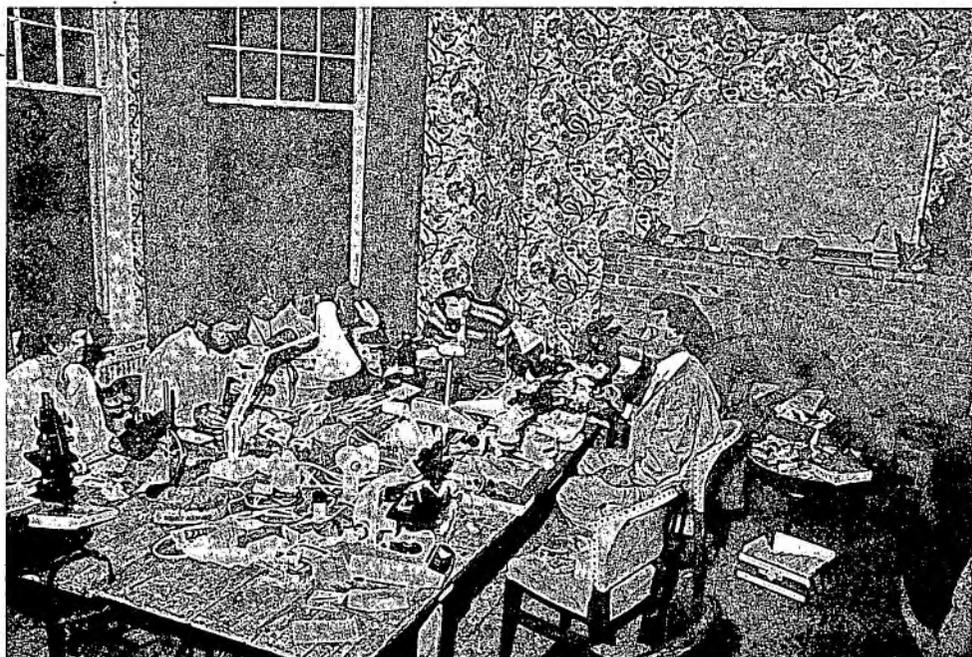
The hotel provided a major source of wonder to us. On the one hand, during the week a continual good-natured, undeclared conflict went on between the management trying to make a profit from our small party by employing such tactics as serving small portions at meals, stealing into our rooms to switch heaters off, removing tea-making equipment and controlling the supply of hot water, while we tried to make ourselves comfortable. This meant each day started with a visit to the post office to purchase chocolate with which to supplement our picnic of meat paste sandwiches. The first back in the evening managed tepid baths with which to soothe their gorse-scoured and aching limbs. On the fourth day, at breakfast, Chris Hitch proudly announced that he had had a hotbath with steam at midnight. On the other hand the management was delightful, varied, informal and happy to please. Particularly in the bar after supper when they sold out-of-date packets of nuts at half price to anyone who was still hungry and kept us amused with stories of the disasters which occurred while they had been running the place. One morning young Megan, the cook's daughter, cycled two miles to show us the Tide Rock. This is an inland boulder with a depression in it which fills with water and then drains as the tide rises and falls. This charming Victorian curiosity, now half-hidden, must once have attracted a lot of attention. We solemnly tasted the water but could not detect salt.

The weather was mostly unbelievably cold for mid-April with snow forecast on several days. This was one of the only two meetings on which I have suspected signs of exposure in members (the other was Melrose, July 1977). After a bitter first few days when everyone wore six layers of clothing, gloves, scarves, the lot, conditions improved and on the last day we got quite a tan. The weather was also kind for our visit to Kynance which might be considered a candidate for one of the great days of British lichenology with many new species discovered, and 14 people introduced to a major habitat. Another memorable expedition was to the gabbro east of Coverack. After lunch a woodland party had a terrible time in a spinney full of brambles and blackthorn which certain members never did penetrate. Meanwhile the veterans found a most interesting cliff-top in full sun.

The Headland Hotel once boasted the finest wine cellar in Cornwall so on the last evening Brian Fox explored the vaults in the hope of finding something special. Eventually he emerged triumphantly bearing two corky bottles but unfortunately one was the personal property of the owner and the other a somewhat passé claret. That evening we learnt that the owners were selling the hotel which is to be converted into self-catering flats. We were about the last party to stay there so future lichenologists visiting the Lizard will not be able to sample its Edwardian elegance, the unique hospitality or be able to participate in the legends which grew up during the meeting.



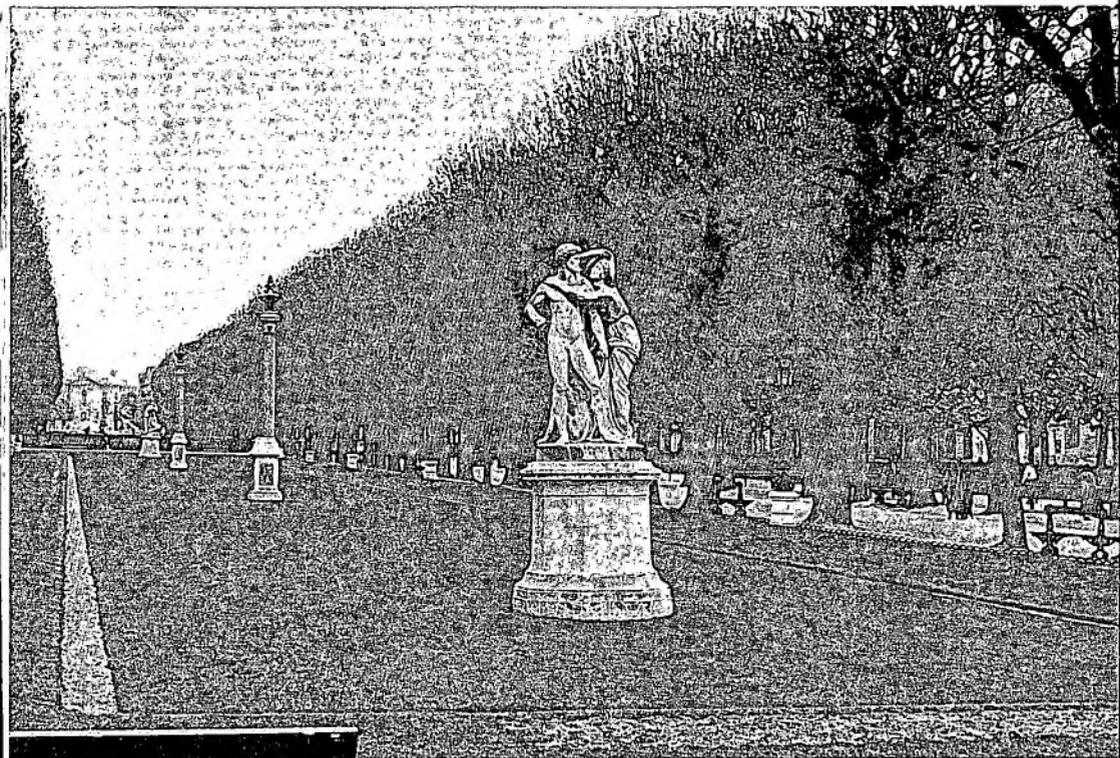
Examining the 'Tide Rock', Lizard Field Meeting 1986



'The Lab', Lizard Field Meeting 1986

Jardin du Luxembourg 1986

This famous Parisian park was surveyed by Nylander one hundred and twenty years ago, the data providing the basis for his pioneer article on the relationship between lichens and air pollution published in Bull.Soc.Bot.Fr. 13: 364-372 (1866). The avenue of chestnut trees pictured below featured in his work. In his day they supported a relatively good epiphytic flora, leading him to assert that the park was "le lieu le plus sain de tout Paris". Sadly, my own detailed search in April of this year, failed to find a single epiphytic lichen on these or any of the other trees in the park - "où sont les lichens d'antan?" as Villon might have said in a similar situation.



MARK SEWARD

New evidence for lichens on Mars

The argument about the possible existence of simple life on the planet Mars has been revived. Ten years ago the world was thrilled when two United States spacecraft programmed to search for life landed on the planet. A mechanical arm scooped Martian soil into experimental containers and the mixture of gases released was interpreted as showing signs of primitive life. However, another Viking experiment, to search for organic molecules, the expected waste products of life, was negative. This second result led Nasa scientists to conclude in 1976 that life was absent and a hitherto unexplained inorganic mechanism was responsible for the nutrient uptake and apparent respiration.

What Nasa scientists failed to consider in 1976 was that life on Mars could be ticking over at such a slow rate that little in the way of organic debris would be present in the Martian soil. Three years later a test of the Viking experiment carried out by Dr K. Biemann, using a soil sample from the Antarctic (in which micro-organisms were known to exist) produced results almost identical to those actually obtained on Mars. Two years later, Dr G.V. Levin and Dr P.A. Straat announced that all attempts to recreate the positive results in the Martian gas release experiment, using inorganic models, had failed. At a meeting held in Washington recently, Levin and Straat announced that it is much more likely than not that life was detected on Mars in 1976. After a decade of extensive experimentation carried out in the laboratory, it was confirmed that no inorganic explanation of the Viking results was possible.

The most intriguing claim concerns the nature of living systems that might have been detected on Mars. Dr Levin and Dr Straat showed that there is evidence of lichens. Photographs of a Martian rock taken some years apart by a camera on one of the Viking landers showed changing patterns of greenish patches similar to the behaviour of terrestrial lichen-bearing rocks.

K. Biemann and J. Mol. (1979) Evol. 14: 65

G. V. Levin and P.A. Straat (1981) Icarus 45: 494.

Condensed from Science Report, Times Newspaper, London, August 1986.

Patterns of field work

A growing number of members obtain their chief pleasure from lichens through fieldwork. For them this is what makes the subject vibrant. If fieldwork is denied for a period, frustration builds up and the next outing is anticipated with an excitement reminiscent of children before the summer holidays. Everyone has their own method of approaching fieldwork. Beginners tend to rush about from tree to tree, gravestone to gravestone skimming off all that glitters, while more experienced members get most satisfaction out of studying a habitat thoroughly with proper attention being paid to the microhabitats. I often find that the best discoveries are made after 3-4 hours at a site by which time a thorough understanding of the habitat has been acquired and those species one has seen several times already are no longer registering. A tip worth remembering is once a good spot has been found stick with it, if you don't you will probably feel obliged to return on another occasion.

It is encouraging that BLS field meetings are now taking several forms with the Autumn Meeting and Workshops general enough for everyone, but also on the calendar advanced meetings to top sites where it would be irresponsible to let a lot of inexperienced collectors loose. Yet others are concerned with supporting a member working on a county flora and are particularly useful in pointing out species they have overlooked, or just helping with the square bashing. Certain types of site such as remote islands and mountain tops are most suitable for privately organised expeditions of friends; these are flexible enough to box and cox with the weather and accommodation can be played by ear.

I believe the finest training is to compile a county flora where every habitat must be studied in detail and no sterile crust can be ignored. There is considerable excitement in finding any new species, the recent splits are eagerly sought, and becoming acquainted with the literature gives a sense of historical perspective. Some people become nearly as interested in the old lichenologists as in the existing flora. Less popular is to specialise in a habitat or distinctive region, consequently there is plenty of scope to study Breckland, Upper Teesdale, the Lake

District, Craven, North-York Moors or habitats such as sand-dunes, carboniferous limestone, posts in salt-marshes, asbestos roofs, lake margins or a river from source to sea. Opportunities for major contributions to lichen ecology and phytogeography through careful fieldwork are endless.

When out in the field I sometimes contemplate on how many other people are doing lichen fieldwork in Britain. Is there someone out every weekend? Every day? Does a fortnight ever go by without a lichen record being made? One must try to continue to operate at all levels and retain a delight in lichens for their own sake; not get like the hunter after ever bigger quarry who has forgotten the pleasure of the rough shoot. In the end one remembers longest the friends one met; the laughs you shared, the experience gained. Brian Coppins is the first person I saw working the exposed roots and underside of trees with his hand lens, he often never did get round to the topside, which 18 years ago was the only area most of us ever looked at. Peter James specialises in keeping well to the rear of any party and making remarkable records off outcrops the rest of the group has already examined. Francis Rose has the seeing eye and even from a distance can often pick out the one tree in a wood or parkland which carries the *Lobarion*. The recent spate of *Sarcopyrenia gibba* records shows that we all have plenty to learn from each other.

LICHENS by Jack Laundon

The new Shire Natural History series aims to provide concise accounts of current knowledge on specialist subjects for the student or informed reader. Jack Laundon's delightful contribution on lichens is No.10 in the series. Generously illustrated, it touches on their morphology, history, habitats, aesthetics, economics, reproduction and use as pollution monitors - in fact manages to contain within 24 pages everything you ever wanted to know about lichens but were afraid to ask. Amazing to learn that organisms similar to lichens existed in precambrian times when they played a vital role in the formation of gold deposits. The illustrations are well chosen. There is an expressive one of a lichen-free 'water run-off' from a lead plaque on a chest-tomb that speaks for itself. Perhaps *Lobaria pulmonaria* could have

been more flatteringly photographed, and the colour of Rhizocarpon alpicola has lost some of its bite, but these are small points. The cover illustration is stunning - every lichenologist's dream of a headstone. Reasonably priced at £1.25. LICHENS is an obvious choice for that Christmas stocking-filler.

PEGGY CAYTON

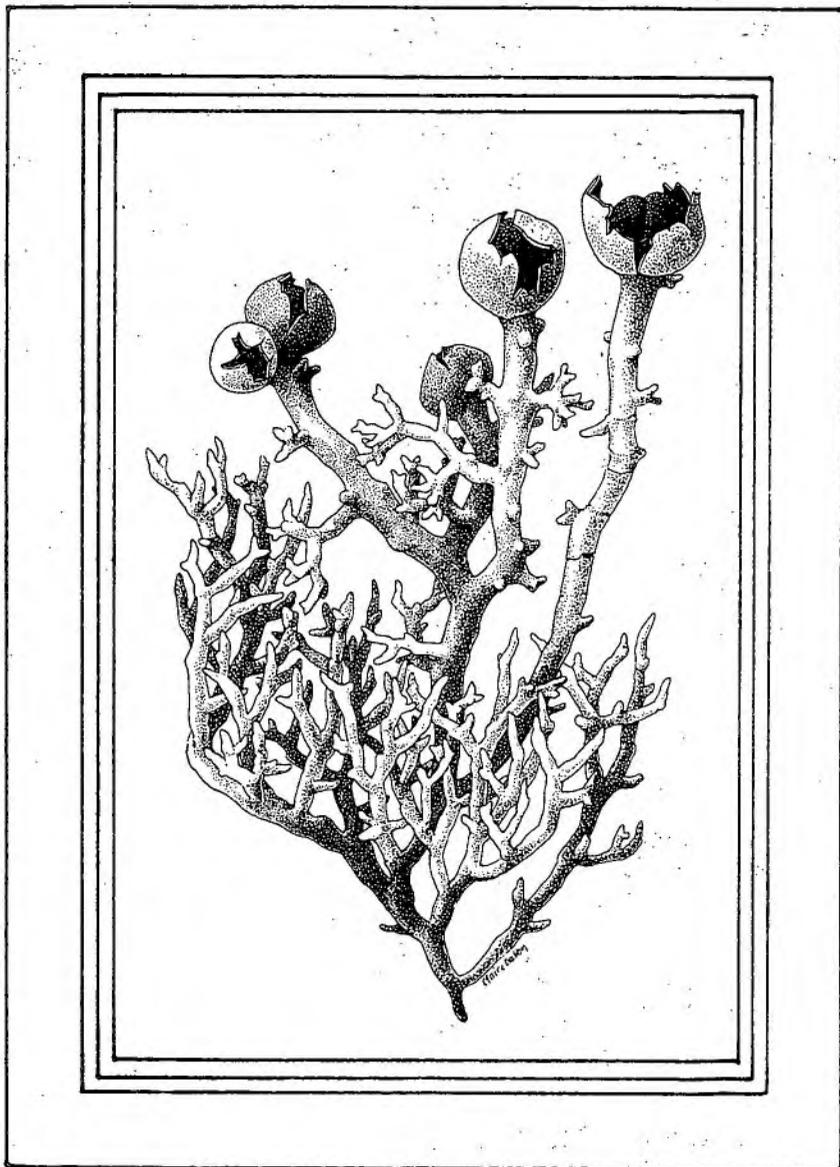
New periodical from the Nordic Lichen Society:

Last May, part 1 of GRAPHIS SCRIPTA, a new periodical edited by the Nordic Lichen Society was published. The style of production is very similar to this Bulletin. The first number contains an appreciation of Rolf Santesson to celebrate his 70th birthday (pp2, Norwegian); a list of lichens collected from Bjorkliden, Northern Sweden (pp4, English); an ecological account of the lichen flora on willow trees in Copenhagen (pp5, English); a list of lichens collected from east Finmark (pp3, English); a list of lichens found by 42 participants during a Nordic Lichen Society excursion in central south Norway in 1985 (pp11, Norwegian/English). Authors include Moberg, Tibell, Alstrup, Christensen, Sochting and Ovstedal.

The journal will contain announcements from the society about lichenological events in the Nordic countries and is open also for international announcements. Scientific papers of special interest to Nordic lichenology are given priority. Scientific papers will be published in English or Scandinavian with an English summary. Authors receive 10 free copies, extra can be ordered. The journal is expected to appear twice a year, the price is 50 Dkr. for volume 1, about 100 pages. The subscription fee should be sent to Postal Account 8 50 50 04, Nordisk Lichenologisk Forening, c/o U. Sochting, O. Farimagsgade 2D, DK-1353 Copenhagen K, Denmark.

Lichen Society Card

Spaerophorus globosus - this unusual and delicate design is the second in the series that Claire Dalby is producing exclusively for the British Lichen Society. The drawing is in black and white, surrounded by a blue border. The card is 4½ x 6 inches, and is blank inside so that it can be used for any occasion. Last year's design sold out very quickly so 850 cards are being produced in anticipation of similar enthusiastic support for this venture. The reproduction below is a copy so a little detail has been lost.



The cards, with envelopes, are sold in packets of 10 at £3.00 post free and proceeds go to the British Lichen Society to which cheques should be made payable. They will also be on sale at the A.G.M. on 19 - 21 February, 1987. When ordering by post, send to: Mrs.A.M. O'Dare, 13 Barrows Road, CHEDDAR, Somerset, BS27 3AY.

Nightmare

to the tune of

'To sit in solemn-silence in a dull, dark dock'

(Gilbert & Sullivan)

You're on a lichen survey and you realize you must
Attempt determination of a dull, dark crust
Spreading like an emanation on an urban roadside wall,
With no lens upon your person and no chemicals at all;
You've no hammer, you've no chisel, you've no gear for playing
games
With a stubborn, sterile 'nasty', so you pray to Peter James,
David Hawksworth, Brian Coppins, dear Jack Laundon and the rest
To renew your flagged acumen and reanimate your zest,
For your eyes are getting wilder and your breath is coming hard
And you've lost your Ordnance Survey map and dropped your mapping
card
In a murky pond five miles back and your feet are sopping wet
And your body's got the shivers and your head is in a sweat
And your penknife will not open and your pen is out of ink
And your pencil's got no lead left and your brains are on the
blink,
You go colour-blind and stupid and succumb to vertigo
And collapse "addressed to substrate". Isn't that the way to
go?

A. HENDERSON

Progress on British Lichen Flora

Preliminary drafts of over three-quarters of the macrolichens have now been prepared and are currently being keyed into a word processor at Reading University. It is hoped that the remaining macrolichens will be described before Christmas and that all accounts will be distributed to members of the advisory committee for comment by this time. The microlichen genera have now been allocated to myself, members of the advisory committee and other specialists. Draft keys to the macrolichens will be available for testing on BLS field meetings during 1987.

WILLIAM PURVIS

October 1986

MISCELLANEOUS

Steam Heat

When preserving for the herbarium foliose and fruticose lichens, collected in the dry state, if they are not to end up as broken thalli or even worse, unrecognisable dust - it is essential to flatten them and this needs moisture. Soaking the thalli in water, particularly with such lichens as Peltigera spp. produces badly stained thalli. If, as I do, you mount the material on a card where possible and subject the thalli to the steam from a boiling kettle spout for about 5 seconds, the thalli become quite lax when they can be pressed flat without harm. Held in this position particularly on a warm surface, like the edge of our AGA they soon become rigid again. The thalli obviously appear unnatural, but they are whole and not subsequently battered to bits. Discussions with P.W.James and Mrs. F. White show that this treatment is not harmful to any TLC treatment on the material.

C.J.B. HITCH

In the wake of Chernobyl

Lichens, the staple food of reindeer, absorbed substantial amounts of caesium 137 as a radiation cloud swept across central Scandinavia in May following the Chernobyl nuclear power plant accident on 26 April 1986. This was passed on up the food chain so in several areas reindeer meat contained 66 times the 600 becquerels safety limit set by Norwegian health authorities. It is estimated that meat from tens of thousands of reindeer due to be culled this autumn will have to be destroyed. The lichens themselves were not reported as overtly affected by the radiation.

Soil binder

For health and safety reasons Rohm and Haas (UK) Ltd no longer supply the acrylic resin Primal AC-33 in small quantities to private users. However I understand that a similar product, Primal AC-634 may be obtained from Spectrum Oil and Colour, Wimbledon, tel. 01-542 4729, in various quantities from 25 ml upwards. The 1 litre cost is £5.35 excluding VAT. I have not used this product yet, but am assured that it will perform in a very similar way to Primal AC-33.

C.J.B. HITCH

Logo competition

Several members of the Society have suggested having a logo which would simply and graphically depict a lichen and would easily identify the Society. It could be included on letterheads, Society literature, publicity, ties, etc. A few designs have already

been put forward, and Council thought that it would be a good idea to let all the budding artists, graphic designers and calligraphers in the B.L.S. put forward their ideas for a logo. So we are having a competition - with a prize for the winning choice - to design a logo which would include the Society's name (or initials). Please send all entries to the Secretary:- Tim Moxham, Dept. of Plant Sciences, University of Bath, Bath, Avon, BA2 7AY, by Friday February 13th 1987.

Death of Alice Burnet and 'Ted' Wallace

It is with a sense of sincere regret that we note the death of Alice Burnet and Ted Wallace earlier in the year. A record of their contribution to lichenology will appear in the next Bulletin.

New, rare or interesting British lichen records

Arthopyrenia monensis South Yorkshire: Sheffield. This minute lichen was found colonising damp stones at the edge of the industrial River Don in the heart of Sheffield (det. B. J. Coppins). 1986 O. L. Gilbert.

Candelariella medians f. steepholmensis North Essex, 52/8240. Scarce among the normal yellow form on oolitic limestone table tomb in a churchyard. 1986 P. Earland-Bennett and John Skinner.

Cetraria pinastri Scottish Highlands: north of Ballater 38/30. Abundant on the dead branches of juniper growing on a hillside between 450-600 m. 1986 B. Abbott

Lecanora epanora Abundantly fertile material was seen with Acarospora sinopica, Lecidea silacea etc., on vast iron-rich boulders in a quarry used for forming the dam wall of a lochan, Ben Vrackie (27/96); 1986 C.J.B. Hitch

Lecanora gisleri. Overgrowing L.epanora and turning the thallus grey, on iron-rich boulders, Ben Vrackie (27/96), 1986. The fruits are salmon orange with a pale margin. It has only recently been noted from material collected from Velvet Bottom, Charterhouse, in the Mendips. C.J.B. Hitch.

L. subaurea North-West Yorkshire: summit of Whernside where it is abundant on a wall of fine grained sandstone, 1986. Checked by T.L.C. Any slightly odd looking L.epanora should be carefully checked for this species. O.L. Gilbert:

Lecidea sublivescens North Hants, 1985; East Kent 1986; Berks 1986; Hereford 1986; this rare species of ancient open park-woodland has clearly been overlooked and is more widespread than was thought.

F. Rose

Menegazzia terebrata South Somerset. On alder in carr woodland, Slade Wood, Barle Valley; new to Somerset, 1986.

F. Rose.

Parmelia caperata Rare on mossy dry-stone walling under sycamore trees. Grogarry (08/73) South Uist, Outer Hebrides 1986.

Peggy Cayton and C.J.B. Hitch. On a heather stem in an open situation, by the side of Loch nam Faoileann, lower slopes of Beinn Mhor (08/72) South Uist, Outer Hebrides, 1986.

C.J.B. Hitch. New to the Outer Hebrides.

Rinodina isidioides Hereford. On ancient oak (with Lobaria amplissima which has increased by 300 per cent in area since 1969), Brampton Bryan Park; first English record between the New Forest and Cumbria, 1986.

F. Rose.

Sarcopyrenia gibba This species has been recorded at a number of churches recently, including Shipham, Somerset (V.C.6) 31/45; Whitwell, Derbyshire (V.C. 57), 34/57 and Great Ponton, Lincolnshire (V.C. 53), 43/93, on marble, magnesium limestone and oolite respectively. They are all new county records, 1986.

C.J.B.Hitch and Peggy Cayton

Solorina crocea Scottish Highlands: north of Ballater, 38/30. On either side of a constructed Land Rover track running through a conifer plantation, 480 m. This is the lowest altitude at which this species has been recorded in Britain, 1986.

B. Abbott

Thelomma ocellatum. New to the county of Norfolk, and the 5th and 6th British records. Seen on one of the derelict gateposts at the entrance to Waxham Church and also on the gatepost and gate of Sea Palling Church, 63/42. It was much less noticeable at the second site, 1986.

C.J.B.Hitch and Peggy Cayton

Trapeliopsis gaucolepidea On a dryish drained peat hag at the top of a boulder in blanket bog, covering the lower slopes of Beinn Mhor (08/73) South Uist, Outer Hebrides. New for the islands, 1986.

C.J.B.Hitch

The following members joined the Society between March and October 1986.

- Mr. F. Ambrose, 11 Archer Close, MAIDENHEAD, Berkshire, SL6 6LH
- Mr. P. C. Bowes, 5 Western Way, PICKERING, N. Yorkshire, YO18 8NP.
- Mr. L. E. Braddick, 7 The Green, CREDITON, Devon, EX17 3LH
- Mr. W. S. Brenneman, 255 Highway 10 Jelm, WYOMING 82063, U.S.A.
- Mr. B. Budel, Fabereich Biologie/Botanik der Philipps-Universität/Lahnberge, Karl-v.-Frisch-Strasse, D-3550 MARBURG/LAHN, West Germany.
- Dr. A. R. Burgaz, Professor Waksman No.11, 28036-MADRID, Spain.
- Mr. P. Burridge, 32 Holborn Avenue, SNEITON, Nottingham NG2 4LZ.
- Mr. A. E. Cannell, 310 Heysham Road, MORECAMBE, Lancashire.
- Ms. J. A. Dixon, Botany Dept. U.W.I. Mona Campus, INGSTON 7, Jamaica.
- Dr. A. Fletcher (change of address) Centre of Marine Biotechnology, Maryland Sea Grant College H.J. Patterson Hall, University of Maryland, College Park, MARYLAND MD 20742, U.S.A.
- Miss D. Gunn, (J.A.) 3 Foster Avenue, HEDNESFORD, Staffordshire WS12 4HG.
- Mr. J. James (J.A.) 9 Nailsworth Road, Dorridge, SOLIHULL, West Midlands, B93 9NS.
- Mr. J. W. Kilmister, (J.A.) 12 Pomfrett Gardens, Stockwood, BRISTOL BS14 8SU.
- Mr. J. H. J. Kruger, (change of address) Rubinsteinlaan 24, 5654 PD. EINDHOVEN, Netherlands.
- Mr. M. Lewis, 49 Beech Hall Road, Highams Park, LONDON E4 9NJ.
- Mr. H-W Linders, Reimersstrasse 6, D-2950 LEER, West Germany.
- Mr. A. Mair (J.A.) 21 Kenilworth Avenue, HELENSBURGH, Dunbartonshire, Scotland, G84 7JR.
- Mr. J-E. Mattsson, Dept. of Systematic Botany, O Vallgarten 18, S-223 61 LUND, Sweden.
- Mr. M. Murphy, Sherkin Island, Co. CORK, Ireland.
- Mr. P. Newland, 32 St. Stephens Road, SALTASH, Cornwall, PL12 4BQ.
- Dr. A. Nicklasson, Fögdegatan 6 352 36 VAXJO, Sweden.
- Miss M.A.A. dos Santos, Rua Prudente de Moraes, 1757/202 - IPANEMA, RJ - Brazil.
- Mr. A. Titze, Baumgarten 9, 3550 MARBURG-SCHROECK, West Germany.

(J.A.) = Junior Associate Member. Please keep us informed of any change of address. Membership Secretary:- F.S. Dobson, 58 Parkway, London, SW20 9HF. This will ensure our mailing lists are altered and that you continue to receive your literature uninterrupted.

TREASURER'S REPORT FOR 1985

It is satisfying that the 1985 Accounts of the Society show a very healthy picture. I attribute this to the loyalty of members in continuing to pay their subscriptions despite the recent increases. I am sure members will feel rewarded when I state that it is my endeavour to maintain the subscription at it's present level for, at least, the next five years. Towards this end I have snured that all monies received by the Society are placed where interest is earned and only minimum amounts kept in hand. The Society operates two bank accounts ie: Girobank and the National Westminster. This is to facilitate the payment of subscriptions.

Notwithstanding the desire to keep subscriptions at the present level it is necessary to take a broad view of the future and this means making funds available for furthering the 'Objects' (as stated in the Rules) of the Society. In particular the continuation of the Mapping Scheme; helping the Conservation Committee to attain it's aims; the maintenance of the high standard of publications etc.

I will not itemize the accounts but it should be noted that despite the death of Dr Ursula Duncan the Society continues to receive royalties in respect of her book. During 1985 Council decided to support the formation of a Conservation Association of Botanical Sciences mooted by The Botanical Society of the British Isles. This explains the £20 under 'Subscriptions Paid'. It is envisaged that the appointment of a Conservation Officer by the Association will be of benefit to the Society. The other item needing explanation is the donation of £50 to The Woodland Trust for the purchase of Milltown & Lantyan Woods on the banks of the Fowey Estuary, Devon. Dr Jackson, on behalf of the Society, kindly inspected and reported on the lichen species to Council before making the grant. It was considered wise to be associated with The Woodland Trust because it tries to save any piece of ancient woodland which comes under threat and ancient woodlands are of particular interest to lichenologists.

In conclusion I would like to place on record my thanks to the two Assistant Treasurers - Mr Frank S. Dobson and Dr John Sheard and to the Auditor Dr T.D.V. Swinscow. These three do a tremendous amount of work behind the scenes without a murmur of complaint.

S.N. TALLOWIN

Literature pertaining to British lichens - 1

Lichenologist 18(3) was published on 28 July 1986.

BRIGHTMAN, F. [H.] & LAUNDON, J. [R.] 1986. Alternatives to lichen dyes. Hali 30: 4. [Reprinting of BLS leaflet article.]

CLAUZADE, G. & ROUX, C. 1985. Likenoj de Okcidenta Europo. Société Botanique du Centre-Ouest, Royan. [Keys to west European lichens, including Britain. In Esperanto. A number of closely related taxa are placed as subspecies or varieties, sometimes incorrectly, since the oldest name at species level is not always used (Art. 57.1).]

COPPINS, B. J., FLETCHER, A., GILBERT, O. L. & JAMES, P. W. 1986. Field meeting in Sutherland. Lichenologist 18: 275 - 285. [Many lichen records, including Verrucaria ceuthocarpa Wahlenb. ex Ach. new to Britain.]

ERIKSSON, O. & HAWKSWORTH, D. L. 1986. An alphabetical list of the generic names of ascomycetes - 1986. Systema Ascomycetum 5(1): 3 - 111. [List of 6031 generic names with their positions indicated.]

ERIKSSON, O. & HAWKSWORTH, D. L. 1986. Notes on ascomycete systematics. Nos 1 - 224. Systema Ascomycetum 5(1): 113 - 174. [Comments on the status, etc., of 224 names of order, family, and genus in the ascomycetes.]

HAWKSWORTH, D. L. & ERIKSSON, O. 1986. The names of accepted orders of ascomycetes. Systema Ascomycetum 5(1): 175 - 184. [Comments on 50 names. Seventeen new orders are described.]

HORNSEY, I. S. & FLETCHER, A. 1986. The lichen flora of the parish of Mepal. Nature Cambs. 28: 40 - 49. [Sixty-one species from this parish in the middle Fens; discussion.]

INNES, J. L. 1985. A standard Rhizocarpon nomenclature for lichenometry. Boreas 14: 83 - 85. [Four sections of Rhizocarpon are recognised.]

KÄRNEFELT, I. 1986. The genera Bryocaulon, Coelocaulon and Cornicularia and formerly associated taxa. Op. bot. Soc. bot. Lund 86. [Monograph of 11 species formerly included in Cornicularia. Bryocaulon Kärnef. is described, with B. divergens (Ach.) Kärnef. as the type.]

LAUNDON, J. R. 1986. Lichens. Shire, Aylesbury. [£1.25. Popular account of lichen biology. Photographs, maps, tables, figs, etc.]

O'DARE, A. M. & LAUNDON, J. R. 1986. Field meeting in north Wiltshire. Lichenologist 18: 269 - 273.

RUOSS, E. & AHTI, T. 1985. Die Rentierflechten (Cladonia subg. Cladina) im Herbarium wallroth, Strassburg. Nova Hedwigia **41**: 147 - 158. [Cladonia arbuscula (Wallr.) Flotow is lectotypified and contains psoromic acid. C. squarrosa (Wallr.) Flotow is lectotypified and contains fumarprotocetraric acid; it represents C. arbuscula auct. s.str.]

SEAWARD, M. R. D. 1986. Use of lower plants for biological survey and evaluation in urban areas. In BARKER, G. M. A. (Ed.) Biological Survey and Evaluation in Urban Areas: Methods and Application to Strategic Planning: 11 - 21. Nature Conservancy Council, Peterborough. [Review.]

SEAWARD, M. R. D., COLLINS, T. S., BYLINSKA, E. A. & MCCARTHY, P. M. 1985. Further additions to the lichen flora of Cape Clear Island, together with observations on the status of Teloschistes flavicans (Swartz) Norman. Cape Clear Bird Observatory Rep. **18**: 71 - 75. [List.]

TOPHAM, P. B. & HITCH, C. J. B. 1985. A study of lichens in relation to dune succession at Tentsmuir Point National Nature Reserve, Fife. Trans. bot. Soc. Edinb. **44**: 347 - 355. [Discussion, tables.]

VEZDA, A. 1986. Neue Gattungen der Familie Lecideaceae s. lat. (Lichenes). Folia geobot. phytotax. **21**: 199 - 219. ["Six new genera are designated for the predominantly foliicolous species. ...The campylidia ... are considered to be phylogenetically derived from apothecia". Catillaria bouteillei becomes Fellhanera bouteillei (Desmaz.) Vezda.]

J. R. LAUNDON

PUBLICATIONS FOR SALE

Orders to Mr. F.S. Dobson, 58 Parkway, London, SW20 9HF

	Price
<u>Bulletin</u> 32, 39, 41, 44, 46, 48-59	£1.50 (£3:00 to non-members)
<u>Literature Guide</u> by Hawksworth (1970)	£1.00
<u>Conservation</u> by Gilbert (1975)	£1.00
<u>A new guide to microchemical techniques for the identification of lichen substances</u> by F.J. White and P.W. James (1985) (Suppl. to <u>Bulletin</u> 57)	£1.50
<u>Check-list of British Lichen-forming, Lichenicolous and Allied Fungi</u> by Hawksworth, James and Coppins (1980)	£4.00 (£6.00 to non-members)
<u>A key to the Lichen-forming, Parasitic, Parasymbiotic and Saprophytic Fungi occurring on Lichens in the British Isles</u> by Hawksworth	£3.00 (£5.00 to non-members)

Cheques/PO payable to the British Lichen Society, Remittance must accompany order (note all items post free).

Back numbers of the Lichenologist can be obtained from Academic Press, 24 Oval Road, London NW1 7DX. Members must state that they belong to the Society and are therefore entitled to a discount.

Lichen Atlas by M.R.D. Seaward and C.B.J. Hitch (1982) From the Institute of Terrestrial Ecology, 68 Hills Road, Cambridge, CB2 1LA. Cost to members £3.85 (post free). When ordering please state you are a member of the Society. Cost to non-members £4.50.

CONTENTS

Revelations of a lichen illustrator	Claire Dalby	1
Nominations required for Officers and Council members		7
Meetings 19 - 21 February 1987		
Horizons in Lichenology, 19 February		8
Variation in Lichens, 20 February		11
A.G.M., Exhibition and Flora Workshop, 21 February		12
Lichenologia	Cudbear	13
Etymological notes on lichen names	A. Henderson	15
Country Diary: A day on Ben Lawers 1986		16
Control of lichen growths on Mayan archaeological ruins		18
Down on the Lizard		20
Jardin du Luxembourg 1986	M.R.D. Seaward	23
New evidence for lichens on Mars		24
Patterns of field work		25
'Lichens' by J. Laundon (Book review)	Peggy Cayton	26
New periodical from the Nordic Lichen Society		27
Lichen Society Card 1986		28
Nightmare	A. Henderson	29
Progress on British Lichen Flora	O.W. Purvis	29
Miscellaneous		30
New, rare or interesting British lichen records		31
New members		33
Treasurer's report and accounts for 1985 S.N. Tallwin		34
Literature on lichens	J.R. Laundon	36

BULLETIN 59. Issued by the British Lichen Society, c/o Dept. of Botany, British Museum, (Natural History), Cromwell Road, London, SW7 5BD (Tel. 91-589-6323 ext.552). Edited by O.L. Gilbert, Dept. of Landscape Architecture, The University, Sheffield, S10 2TN who is author of all unsigned articles, except Lichenologia. The view of contributors are not necessarily those held by the British Lichen Society.

Published by Tradeprint (Cromworth Ltd), 515 Abbeydale Road, Sheffield, S7 1FU

ISSN 0300 - 4562