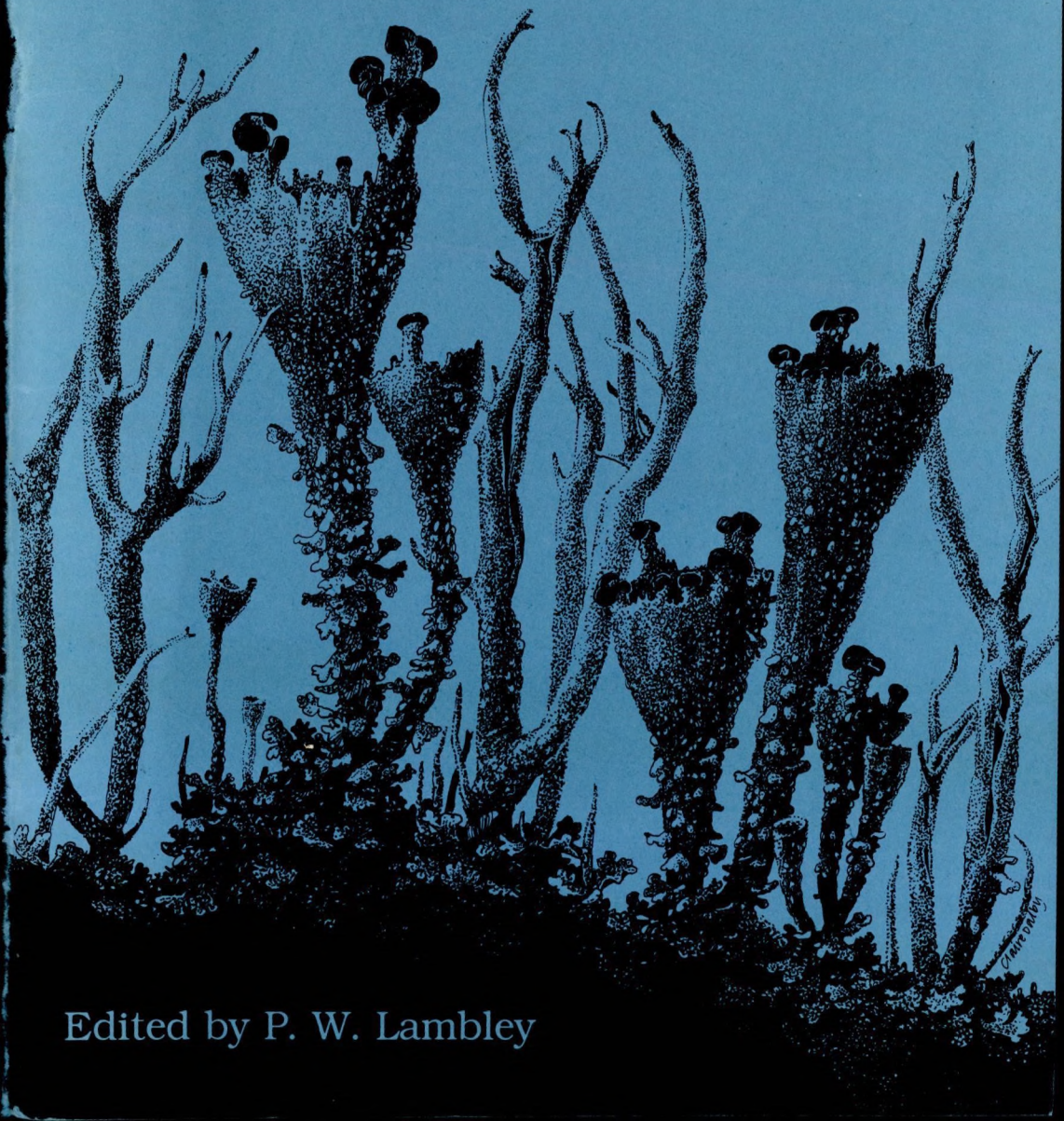
BRITISH LICHEN SOCIETY BULLETIN

No. 83 Winter 1998



Edited by P. W. Lambley

FORTHCOMING BLS MEETINGS

ISLES OF SCILLY
Leader Peter James — 6th - 13th April 1999

1999 MEMBERSHIP AND SUBSCRIPTION RATES

Annual rates except where indicated (dollar rates are double the sterling rates except where indicated)

ORDINARY MEMBERSHIP for individuals (i.e. not available to institutions) who have signed the Application Form and paid the subscription, being entitled to all publications and facilities of the Society ..... for 1999 £25.00
..... for 1999-2001 £71.50
..... for 1999-2003 £112.50

LIFE MEMBERSHIP for persons over 60 years of age and having the same entitlement as Ordinary Members (10 times annual rate) £250.00

Each of the categories of **ASSOCIATE** membership enjoys full entitlement to all the facilities of the Society as well as the *Bulletin* but without *The Lichenologist*.

ASSOCIATE MEMBERSHIP £18.50

SENIOR ASSOCIATE MEMBERSHIP for persons over 60 years of age £7.50

JUNIOR ASSOCIATE MEMBERSHIP for persons under 18 years of age, or full-time students £5.00

FAMILY MEMBERSHIP for persons of the same household as a member, having entitlement to the facilities of the Society but receiving no publications and having no voting rights £5.00

***BULLETIN* only** subscriptions (from Assistant Treasurer) for institutions only £15.00

***LICHENOLOGIST* only** subscriptions (from Academic Press): institutions rate £245.00

Renewal membership subscriptions by sterling cheque, payable to The British Lichen Society, **drawn on a UK bank or on a bank with a UK branch or agent** should be sent, by 1st January, to Mr J M Gray, Assistant Treasurer, British Lichen Society, Penmore, Perranuthnoe, Penzance, Cornwall, TR20 9NF, UK (tel and fax 01736 710616), e-mail: jmgray@argonet.co.uk.

US dollar renewal membership subscriptions should be sent to Dr J W Sheard, Department of Biology, 112 Science Place, University of Saskatchewan, Saskatoon, Saskatchewan, S7N 5E2, Canada.

Overseas members may find it most convenient to pay subscriptions by GIRO (Girobank, Lyndon House, 62 Hagley Road, Birmingham, B16 8PE, UK): the British Lichen Society Giro Number is 24 161 4007, or by Eurocheque in Sterling.

Applications for membership should be made to The Secretary, The British Lichen Society, c/o The Natural History Museum, Cromwell Road, London, SW7 5BD, or through the Society's website at **http://www.argonet.co.uk/users/jmgray/**.

SUBMISSION DEADLINE - 23rd March 1999

Cover artwork by Claire Dalby

LICHENS AND THE UK BIODIVERSITY ACTION PLAN

Since the 1992 Earth Summit in Rio, there has been much talk about biodiversity and the urgent need to conserve it. In January 1994 the Government published *Biodiversity: the UK Action Plan* - a tentative but valuable step in the right direction. The Biodiversity steering group was set up to take the plan forward and the group passed its advisory report to Government in December 1995. The Government's endorsement of the report in May 1996 gave further impetus to the conservation of the UK's Biodiversity.

The plan involves the writing and implementation of Action Plans for a wide range of threatened habitats and species. These include habitats important for lichens such as native pine wood, upland oakwood, lowland heath, lowland woodpastures and parklands, maritime cliff and slope and coastal sand dunes. In addition seven species of lichen were put forward for the Short List and 29 for the Medium Lists. These are now combined as a Priority List. In addition there is a Long List with about 40 species of lichen, but Action Plans for these are unlikely to be written in the near future. The selection of species was based on a number of criteria including endemism, known rapid declines and species confined to a few localities. Whilst these criteria work well with the better known groups like birds and flowering plants, they do not always take into account those like lichens, where ideas on taxonomic status and distributional information are still in a state of flux. Nevertheless, whilst the selection of species is sometimes questionable, the plan does provide an opportunity to extend our knowledge on lichen autoecology, and to bid for funds to restore the fortunes of declining species. There are also likely to be benefits for other species not on these lists, which grow in similar habitats or are faced by the same threats.

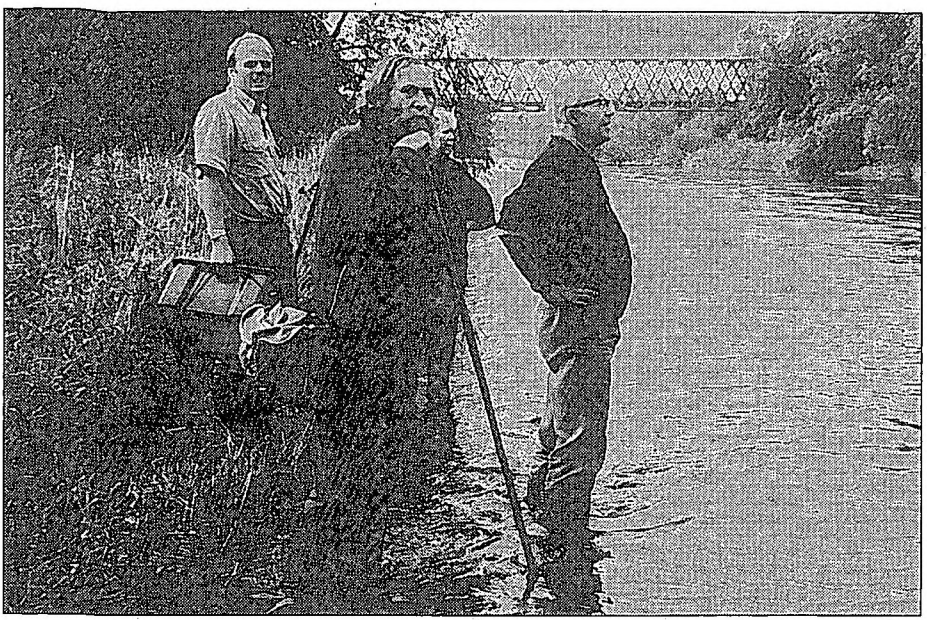
A theme in most Action Plans is the need for good specialist advice to land managers and others who cannot be expected to know where they occur or what they look like. There have been too many instances in the past where rare species have disappeared by neglect or accident. Most Plans also contain targets to maintain or restore viable populations of the species concerned, though defining viability is not always easy. Transplant techniques and other methods are still in their infancy compared with other groups. Therefore, efforts are more likely to be directed towards habitat management and protection of individual sites. Where transplants are concerned they must follow IUCN guidelines on reintroductions and translocations. Of particular concern in relation to lichens is the need to ensure that the genetic implications are considered and that other species are not accidentally introduced at the same time. *Ex situ* techniques for bryophytes are being developed and there may be scope for exploring culture techniques for the rarer British lichens. Clearly, each of the species presents different problems and requires individual consideration as the examples below indicate.

Species on the Short List include *Buellia asterella* a Breckland speciality which is now confined to one site though formerly on about four sites. This species (along with *Squamarina lentigera*, another Breckland speciality) have already been the subject of transplant experiments by Oliver Gilbert with funding from English Nature. This approach has not been very successful, and another approach involving turf-stripping may be tried in the near future. For other species the first action is to confirm their distribution, for instance *Collema dichotomum* is known from a number of rivers in Scotland, northern England and Wales. However, it has possibly been confused with *Leptogium plicatile* and it is only by checking old and recent records we can develop a base line to monitor its future status. Research on this species is likely to benefit other aquatic lichens. It is encouraging that the Environment Agency are taking a lead role in progressing this Action Plan, as it is likely that the greatest threats to this species are likely to be changes in river flows and water quality.

Other species pose particular problems. *Teloschistes chrysophthalmus* has always been scarce in the British Isles. It is probably at its geographical northern limit and was considered extinct, having been lost from one site where it used to occur on coastal scrub in south Devon, but one thallus has now been found on scrub in west Cornwall. Should we try and transplant it from populations further south in the Canary Islands or the Azores or should we wait to see whether it responds naturally to global warming? A possible way forward would be to work with groups restoring orchards as these are likely to provide suitable habitats for this species. Clearly there are no simple answers to some of these questions.

Dutch elm disease and the subsequent death of most mature elms in England and Wales (and many in Scotland), has had a catastrophic effect on a group of lichens for which the elm is the principle phorophyte. Species such as *Caloplaca luteoalba, Bacidia incompta* and to a lesser extent *Gyalecta ulmi*. In this case the best solution would be to develop disease resistant elms, but even if we are successful we are talking of many years before mature elms return as a feature of the British countryside. In the mean time, we can at least identify the remaining colonies, monitor and get some protection for them. At present though it is not possible to put a Tree Preservation Order on a tree for purely conservation reasons, this would be a desirable approach to protect the remaining colonies of *Caloplaca luteoalba* growing on horse chestnut, maple, black poplar and sycamore. It may also be possible to undertake some transplants using this material. However, this is a group for which it is particularly difficult to get up-to-date distributional data, so that BLS members can play an important role in forwarding this information to the mapping recorder and also to Chris Hitch for the new and interesting records report in the *Bulletin*.

Other species such as *Lecanactis hemisphaerica* and *Calicium corynellum* provide a focus for considering the conservation of lichens in churchyards and thus benefiting other rare churchyard species.



Sandy and Brian Coppins, Oliver Gilbert and Environment Agency staff searching for *Collema dichotomum*, River Eden, Cumbria.

Buellia asterella - one of the BAP species restricted to Breckland.

Species in parkland and woodland which grow on old trees are likely to pose particular problems as in general they are poor colonists and are thus vulnerable to habitat loss through disease, drought and storm damage. There have also been losses due to inappropriate management as is well demonstrated in a recent survey by Sandy and Brian Coppins of *Schismatomma graphidioides* in England, where of the four sites known in the last years only two continue to support this species. Protecting the resource has to be a priority with measures such as developing techniques of tree surgery as practised on the tree with *Catapyrenium psoromoides* in Scotland plus a better understanding of the impact of agricultural chemicals and atmospheric pollution in its various forms. Do cultural techniques have a role in the case of such species?

Coastal heathland species are vulnerable to trampling and other pressures due to the demands of visitors, pressure and also changes in grazing regimes. Again, the first step is to establish the present status of a species before developing a strategy to protect and enhance the habitat for the species.

Sheila Street (page 24) has demonstrated that by focusing on a species like *Cladonia botrydes* it may be possible to find more sites once a more accurate understanding of its ecology has developed. Scottish Natural Heritage have taken this further with this species by producing a postcard for distribution to foresters, with photographs and a brief description, together with advice on recording locality and who to contact. *Peltigera lepidophora* is another species which had not been seen since the 1970s and which has benefited from a targeted search resulting in its rediscovery.

Finally, a number of species have been chosen as they are thought to be endemics, for example *Opegrapha paraxanthodes*. The first priority here is to clarify its taxonomic position before deciding whether action is really necessary.

As the Government is committed to the BAP process, these species are likely to attract funds for research on their status, on monitoring and the development of transplant and other techniques for restoring populations. This should be of benefit not only to these species but to a wider group facing similar problems. The Society, with its unrivaled expertise, has the opportunity to make a major contribution to this process.

Short list species

Buellia asterella
Caloplaca luteoalba
Collema dichotomum
Gyalecta ulmi
Pseudocyphellaria aurata
Pseudocyphellaria norvegica
Schismatomma graphidioides

Middle list lichens

Alectoria ochroleuca
Arthothelium dictyosporum
Arthothelium macounii
Bacidia incompta
Belonia calcicola
Biatoridium monasteriense
Lecanactis hemisphaerica
Bryoria smithii
Calicium corynellum
Caloplaca aractina
Catapyrenium psoromoides
Catillaria aphana
Catillaria subviridis
Chaenotheca phaeocephala
Cladonia botrytes
Cladonia mediterranea
Cladonia peziziformis
Enterographa elaborata
Enterographa sorediata
Graphina pauciloculata
Heterodermia leucomelos
Hypogymnia intestiniformis
Opegrapha fumosa
Opegrapha paraxanthodes
Peltigera lepidophora
Squamarina lentigera
Teloschistes chrysophthalmus
Thelenella modesta
Zamenhofia rosei

Species grouped by habitat or biogeographical features

Montane: subalpine & alpine Scotland
Alectoria ochroleuca
Hypogymnia intestiniformis
Halecania rhyzopodia

Montane subalpine (more widespread)
Opegrapha paraxanthodes

South-westerly coastal species
Caloplaca aractina
Cladonia mediterranea
Heterodermia leucomelos
Catillaria subviridis
Pseudocyphellaria aurata

Coastal
Catillaria aphana

Calcareous grasslands (Breckland)
Buellia asterella
Squamarina lentigera

Churchyard species
Lecanactis hemisphaerica
Calicium corynellum

Wood pasture species
Enterographa elaborata
Enterographa sorediata
Catapyrenium psoromoides
Zamenhofia rosei

South-western woodland species
Bryoria smithii
Graphina pauciloculata

Rivers
Collema dichotomum
Peltigera lepidophora

Roadside and hedgerow trees and parklands
Caloplaca luteoalba
Bacidia incompta (also occasionally woodlands)
Biatoridium monasteriense (also woodlands)
Chaenotheca phaeocephala (on old wooden buildings and trees)
Thelenella modesta

Calcareous rocks in lowland and upland
Belonia calcicola
Catapyrenium psoromoides
Gyalecta ulmi

Coastal heath
Cladonia peziziformis

Caledonian pinewood
Cladonia botrytes

Peter Lambley
Ray Woods

JANUARY MEETINGS 1999

Nominations

Nominations for Officers for 1999 and four members of Council for the period 1999-2001 should be sent in writing to the Secretary, Dr O W Purvis, Department of Botany, The Natural History Museum, Cromwell Road, London SW7 5BD before 21 December 1998, please. No person may be nominated without their consent.

Please note there will be a vacancy for the post of *Secretary* as I shall be relinquishing this position having recently taken on new responsibilities at work.

Council Meeting

Council will meet at 14.00 on Friday 8 January 1999 in the Meeting Room of the Linnean Society, Burlington House, Piccadilly, London W1V OLQ. [Half way between Green Park and Piccadilly tube-stations on the north side of Piccadilly, the Linnean Society rooms are to the left immediately beneath the entrance]. Please let me have any items you wish Council to discuss prior to the meeting.

Evening Wine Buffet and 40th Anniversary Celebrations

Will be held from 18.00 – 21.00 (buffet at 18.30) in the library. Members wishing to attend are requested to complete the enclosed payment slip and send a cheque for £18.00 (made payable to the Linnean Society of London) before 21st December so that arrangements for catering can be made.

In celebration of the 40th anniversary of the BLS, founder members will be invited as guests of the society. Photographs illustrating aspects of 40 years of the work of the British Lichen Society will be on display. Members wishing to provide additional material should inform Mark Seaward, BLS Archivist. A lichen quiz will be held in place of the normal book sale.

Annual General Meeting/Exhibitions/Lecture Meeting

The Annual General Meeting will be held in the **meeting room of the Linnean Society** at **10.30 am** on Saturday 9 January 1999. Please bring along exhibits of lichenological interest for display in the library,

PLEASE NOTE MEMBERS WISHING TO DISPLAY ITEMS SHOULD DISCUSS THEIR SPECIFIC REQUIREMENTS WITH MARQUITA AT THE LINNEAN SOCIETY BEFORE MONDAY 21ST DECEMBER 1998

Programme

Saturday 9 January

10.00 Coffee and reception

10.30 Annual General Meeting

AGENDA

1 Apologies for Absence
2. Minutes of Annual General Meeting 9 January 1998
3. Matters arising
4. Officers' Reports
5. Meetings 1998-1999
6. Election of Officers:
   Secretary
   Other Officers
   4 members of Council
7. Election of Honorary Member(s)
   Any other business
   Date and place of next AGM

11.30 Exhibition Meeting

12.00 Lunch (to be taken at local venues)

Afternoon Lecture Sessions – Lichens in Unusual Habitats

14.00 – 14.30	Watch those Niches! - *Brian Coppins*
14.30 – 15.00	Lichens on Airfields - *Oliver Gilbert*
15.00 – 15.30	Timber Structures, Posts and Palings - *Vince Giavarini*
15.30 – 16.00	AFTERNOON TEA
16.00 – 16.30	Lichens of Snowbeds – *Alan Fryday*
17.00	CLOSE

TREASURER'S REPORT ON THE ACCOUNTS FOR THE PERIOD FROM 1/7/97 TO 30/6/98

This has been another financially successful year for the Society, achieved partly by the increase in interest rates and the continuing sales of the *Flora*. At the present rate of sales, we have sufficient copies to last about another four years. We will then have to spend ten to twenty thousand pounds on a new edition or reprint.

A decision about the subscription rate for the next five year period (2000-2004) will have to be made at the next AGM. We again expect to be able to offer the chance to obtain a discount on the subscription by paying for several years in advance. This system has proved popular with the members and greatly assists the Assistant Treasurer in his paperwork. We continue to experience difficulties with identifying the sender of some Giro payments as only these include the first 20 letters of a message. **Please ensure that you put your name first in any message.**

Printing costs are lower this year as a number of projects, such as the next fascicles of the atlas, had not yet reached the printing stage. There were two standard issues of The *Bulletin* this year with no supplements, giving a reduced expenditure for the year.

The profit sharing with Academic Press, the publishers of *The Lichenologist*, continues to keep down the cost to the Society of this international journal. This publication forms one of the most important ways in which the Society can influence lichenology throughout the world, especially now that *The Lichenologist* can be accessed through the internet.

The increased activity of the sub-committees is reflected in the higher expenditure of these committees. Some of this activity is shown in the costs of the highly successful symposium held during the AGM weekend and the Habitat Workshop held at Bangor.

The public liability insurance premium has increased by 50% this year. This is due to the fact that we pay the minimum rate and this new figure is the lowest at which the insurance company now finds it viable to accept business. The Council rightly considers that it is essential that we are covered by insurance and fortunately, to date, we have not had to make a claim.

Since the end of the financial year, payments have been made under the small grant scheme for designated projects and the next atlas fascicle has reached the printing stage with several more in an advanced state of preparation.

A major expenditure will be on software for the new Society database. After much discussion it was decided to purchase ten copies of BioBase together with copies of the D-Base mapping program as required. This system will continue in tandem with the existing one run by Mark Seaward at the University of Bradford.

My thanks must go to the assistant treasurers, Jeremy Gray and John Sheard, for all their hard work and to Douglas Oliver for his valuable suggestions and for auditing the accounts.

F S Dobson Hon. Treasurer

Auditor's Report to The British Lichen Society

I have not checked the stock or examined the Register of Members but, in my opinion, the attached accounts prepared under the historical cost convention 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 30th June 1998.

D E W Oliver FCIB, ATII

Notes to the Accounts

1. Managers' 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 AND INCOME FOR THE YEAR 1/7/97 TO 30/6/98

1996/7	EXPENDITURE			1996/7	INCOME			
	Printing and distributing *The Lichenologist*	13,637			Subscriptions		16,683	
6,108	Less profit sharing	(8,056)	5,580		Add 1/5 life membership		486	
	Printing and distributing *The Bulletin*	3,008		11,485	Less refunds	(136)		
3.909	Less receipts	(240)	2,768	3,560	Paid in advance	(4,215)	(4,351)	12,818
1,252	Secretarial and committee expenses		1,674	45	Interest received			5,601
259	Depreciation		350	3,402	Donations			–
1,975	Printing		517	205	Profit on sales of stock inc. *Flora*			3,053
189	Bank charges		220	241	Profit/Loss on exchange rate			(33)
250	Symposium and A.G.M.		1,725		Profit on book sale			–
148	Grants, Seminars, Field trips etc.		1,003	£18,938			Total	£21,439
150	Accounting and audit		150					
103	Insurance		156	(£3,806)	Excess income over expenditure			(£7,044)
183	Subscriptions paid		236					
500	Donations paid		–					
106	Miscellaneous		16					
£15,132		Total	£14,395	£15,132			Total	£14,395

BALANCE SHEET AS AT 30/6/98

	LIABILITIES				ASSETS		
6,191	Sundry creditors (inc. advance subs)		5,548	110,932	Cash at Banks and in hand		118,351
1,429	Life members		1,943	7,950	Stock and work in progress		7,909
3,307	Burnet/Wallace Memorial Fund		3,307		Capital equipment £1,139		
900	Grants and funds in hand		900	779	Less depreciation	(£350)	789
	General Fund at 30/6/97	108,505		671	Debtors		198
108,505	Plus surplus for 12 months	7,044	115,549				
£120,332		Total	£127,247	£120,332		Total	£127,247

Signed and agreed on behalf of the British Lichen Society

President: Treasurer

FROM THE ASSISTANT TREASURER

New Address

Members are reminded that I moved house in May last year. Please send all communications to my new address in Cornwall (see inside front cover).

Subscriptions 2000-2004

Council has reconsidered the subscription rates for the five year period 2000-2004 and in view of the present healthy financial state of the Society it is not considered necessary to seek approval of an increase at the 1999 Annual General Meeting.

Subscriptions for Ordinary membership for the three and five year periods will, therefore, be held at the current rates of £71.50 for 2000-2002 and £112.50 for 2000-2004. Annual subscriptions will be held at current rates from 2000 but an increase is likely before 2004.

Members who paid for a three or five year period which extended beyond 1999 will be sent receipts for the appropriate period.

Membership Renewal 1999

As a matter of expediency a Membership Renewal form is enclosed with this Bulletin whether or not your subscription is due for renewal. If you are unsure of the status of your subscriptions please contact me by post or e-mail. I have written to those members for whom the Society holds a subscription credit.

Please note that subscriptions are due by 1st January and that if payment is received after this date the despatch of the first part of *The Lichenologist*, which is published early in the New Year, may be subject to a delay of several weeks.

Members are reminded that claims should be addressed direct to Academic Press.

The continuation of three and five year subscriptions from 2000 means that these rates are also available from 1999-2001 or 1999-2003. Members who can choose this method of payment enjoy a number of advantages. Not only is there no need to remember to pay the subscription by 1st January during the period but there is a modest saving on normal annual subscription rates, reduced commission charges for overseas members, a considerable saving to the Society in administration as well as the assurance that any increase in the annual subscription rate during the period will not be applied.

It is regretted that it is not financially viable for the Society to offer the facility of payment by direct debit, credit or debit card. U.K. members may, however, make arrangements with their bank to pay subscriptions by Standing Order Mandate. A form is enclosed which should be returned to your bank.

Back numbers of *The Lichenologist*

Many thanks are due to the former member whose generous gift of back numbers of *The Lichenologist* for sale has benefited the Society by £420.00.

Membership Numbers

It is encouraging to note that membership of the Society has continued to increase steadily from 535 in 1991, 568 in 1995, to its present level of 605.

BioBase

The Society is negotiating the purchase and modification of BioBase for use as a comprehensive recording system for lichens and lichen sites.

BLS Website http://www.argonet.co.uk/users/jmgray/

On the site, which is regularly updated, you will find information about the Society and its Officers, a BLS Prospectus, the Rules of the Society, a Membership Application Form, the General Information sheet, details of Forthcoming Meetings, Publications and Other Items for sale, information about the *Parmelia* CD with an evaluation version, names of Regional and Specialist Referees, the Churchyard Lichens Factsheet, the texts of 'Lichens on man-made surfaces' and 'Churchyard Lichens', the British Isles List of Lichens (as up-to-date as possible) with BLS numbers, both as a text file and as a CSV file for importation into a database and Links to other Lichenological sites.

If you have not visited the site for some time or have recently acquired access to the internet you may find much of interest.

PRESIDENT'S REPORT FOR 1997

Your hard working and stalwart band of officers have reported elsewhere on another very successful year for the society.

Their activities have been steered by regular well attended meetings of Council, informed by Data, Conservation and Education and Promotions Committees. I would like to thank everyone for their time, effort and in many cases contributions from their individual financial resources, which they have selflessly given the Society.

It is no easy task to ensure the smooth running and continued development of a major international scientific society entirely voluntarily. *The Lichenologist* last year was published in 6 parts with authors from 22 countries, over 600 pages produced and 55 major papers. I can only marvel and be grateful for the work of our editor and his team. We offer speedy publication in a world class journal and I am confident we can meet whatever challenge the new electronic publishing era might lay before us.

Peter Crittenden has handed over the editorship of the *Bulletin* after 7 years. With such a far flung membership it is this publication which probably more than any thing determines the 'soul' of this society. Peter has reflected well what I perceive to be a vibrant and happy Society in his editorship of the *Bulletin* and I thank him for his hard work. It is up to us all now to supply the material for Peter Lambley, who has taken over as editor.

The Society has more overseas members than British. Council has therefore tried to take account of this by considering ways of better reflecting their views and opinions. Membership of Council is the obvious, but somewhat impractical solution, since the cost of travel would generally be prohibitive. It was however, resolved that should any non-British based member know sufficiently far in advance that they would be in London at the time of a Council meeting they should let the Secretary know and Council members could consider co-opting them for the meeting. Consideration was also given to ways of improving contact, perhaps by creating a small grants scheme.

Continuing the international theme, Mats Wedin and William Purvis, our secretary, have organised an international symposium on the taxonomy, evolution and classification of lichens and related fungi around the AGM. I hope everyone will take advantage of the opportunity to renew or make new friendships.

On the home front lichenology goes from strength to strength. The churchyard group continues to be embarrassed by its success. Tom Chester and his team look set in 1998 to complete what appeared the improbable task of recording the lichens in at least one churchyard in every lowland 10 km square in England, whilst providing advice, training courses, literature etc.

Our first CD rom has been produced covering the genus *Parmelia*. Jeremy Gray and Frank Dobson somehow made it happen, ably assisted by many others, around their otherwise "full-time" roles for the Society. Brian Fox continues to chivvy support to carry forward the important work of publishing the Atlas fascicles. None of this would be possible without the work of our Mapping Recorder, Mark Seaward. Please keep sending him records.

At a time when one major British botanical society is considering winding up its conservation committee, ours, under the capable leadership of Tony Fletcher, has never seen a clearer role. We held a major conference in Bangor to review our ability to conserve the most important habitats for lichens and we have identified a need to refine our ability to monitor their populations, hopefully the subject of a conference in 2000.

With our finances in a healthy state Council has looked at ways of stimulating the study of lichens and a small grants scheme led by Oliver Gilbert has been further developed. Thanks to Trevor Duke and local organisers, our now traditional pattern of field meetings has continued, including Peter James leading a very well subscribed *Caloplaca* workshop at Slapton.

In handing over the reins to Peter Crittenden, to whom I wish every success, may I thank you all for the help and support I have received in the last two years, in particular from the Secretary, William Purvis; the Treasurer, Frank Dobson; and his Assistant Treasurer, Jeremy Gray. They have willingly given so much of their time to the Society. Their skill and enthusiasm will, I am certain, ensure the Society enters the new millennium in Peter's hands in fine shape.

Ray Woods

FURTHER LICHEN OBSERVATIONS AT PLYMTREE, DEVON, 1992-1997

In 1986 and 1992 lichens on isolated oaks in the parish of Plymtree were surveyed across 4 km from a lightly grazed bog, too wet to be accessible to farm machinery, to an area of arable and pasture cultivation (Benfield 1994). It was found that the lichen flora changed across the parish from a community which preferred slightly acidic conditions to a nitrophilous assemblage. The sites were visited again in 1997. Since 1992 further lichens have disappeared, the range of others has become significantly reduced and additional species have been recorded. The greatest losses have occurred near the centre of the village where 36% and 50% of the lichen species have gone from two sites.

The pollution sensitive lichens which have disappeared from all sites where they were previously recorded are, *Usnea florida, U. rubicunda* and *U. ceratina*,1 all frequent on trees in the bog in 1984, and *Hypogymnia tubulosa*, which has declined in a broad band across the centre of Devon since 1980. The range of the slightly acidic bark species, *Usnea subfloridana, Hypogymnia physodes*, and *Parmelia saxatilis* formerly widespread in the area furthest from cultivation, has become reduced and *Evernia prunastri, Lepraria incana* and *Parmelia sulcata* continue to retreat, while *P. laciniatula* has become common in the middle range of exposure to the incidental effects of agriculture. *Buellia punctata, Physconia grisea, Ramalina canariensis, Xanthoria parietina, X. polycarpa* and the green alga, *Desmococcus* sp., have spread in the area studied.

Losses from the more intensively farmed zone are mainly of foliose and fruticose lichens leaving a predominantly dry bark crustose flora. This trend is underlined by additional data collected from transects at heights of 30 cm, 60 cm, 90 cm and 120 cm round the circumferences of some of the trees in 1994, 1995 and 1997, which indicate that, on some trunks, the cover of *Diploicia canescens* and *Schismatomma decolorans* has almost doubled since 1994. The increase in dry bark species may be partly due to a recent tendency to lop lower branches to enable machinery to approach nearer tree boles. The loss of trunk humidity which was maintained by lower branches has been exacerbated by a recent succession of drier summers. This may account for the addition of the dry bark species, *Lecanactis premnea* under a small boss of one oak.

The frequency of *Phaeophyscia orbicularis, Physcia tenella, Physconia distorta, Xanthoria candelaria* and *X. parietina* has fluctuated since 1984 suggesting that these species can rapidly colonise bark which becomes suitable but that they have a short life. Numerical data can be misleading with some of these species. In March 1998 many minute thalli of *Xanthoria parietina* were recorded but large old plants were few and moribund. It is unlikely that all the small new thalli will develop into mature plants.

Possible reasons for the changes in the lichen flora at Plymtree

Legislation controlling the methods of disposal of farmyard effluent has changed farming practice. Large slurry holding tanks have become much more prevalent. This has resulted in a greater volume of manure which must be disposed of exclusively on to fields when ground, crop and weather conditions are suitable. On grass ley this can be during frozen or dry periods. The cultivation of maize has increased locally and nationally with consequential heavy application of fertiliser often in the form of slurry just before planting and after harvesting. As a result local concentrations of ammonia and nutrients can become considerably elevated on certain days. The expansion of the poultry industry has led to an increase in the use of chicken manure as a fertiliser which may have contributed to the enhancement, on some trunks, of the *Xanthorion* community similar to that observed on roofs, cliffs and other perch sites.

Parish data collected since 1984 from vertical transects from ground level to two metres indicate that shrubs such as blackthorn (*Prunus spinosus*) and hawthorn (*Crataegus monogyna*) can alleviate stress to a lichen flora by sheltering trunks from excessive eutrophication. It has been noted that, while the twigs of such shrubs are covered with *Xanthoria parietina* and *Physcia tenella*, sheltered parts of nearby trunks retain species requiring a less nutrient enriched habitat. A reduction in the number of lichen species on one tree from 21 in 1986, to 20 in 1992 and to 8 in 1997 is puzzling. It is only unique in being 30 m from a small industrial unit which occasionally burns plastics on an open bonfire.

Of the lichens which have been lost or have a reduced distribution, four need an environment with minimal pollution and five favour slightly acidic conditions. The majority of species which have extended their range prefer nutrient enrichment. This has resulted in an increased number of species at the outer end of the transect but a reduction in less common varieties. The rapid decline of *Usnea florida* locally and throughout the county is similar to a trend noted in Sweden (Hallingback 1998).

The increase of nitrogenous effluent spread on to the land appears to have affected the lichen flora in Plymtree, though since 1986 90% of all coal, oil and gas fired power stations have added ammonia to their flue gases to convert NOx to neutral nitrogen gas to reduce levels of atmospheric acidity. This has led to a worldwide increase in the emission of excess unreacted ammonia gas, (Radojevic 1998), which may exacerbate the effects observed from agricultural sources.

Number of trees bearing species selected from the total data recorded at stated sites.

Losses	1986	1992	1997
Hypogymnia tubulosa	2	1	0
Ramalina fraxinea	3	3	0
Usnea florida	2	0	0
U. ceratina	1	1	0
Decreases			
Hypogymnia physodes	5	4	2
Evernia prunastri	10	9	7
Lepraria incana	10	10	4
Parmelia saxatilis	3	3	1
P. subaurifera	8	8	6
P. subrudecta	10	9	7
P. sulcata	9	6	4
Usnea subfloridana	6	5	2
Xanthoria candelaria	2	7	3
Increases			
Buellia punctata	6	6	9
Ochrolechia subviridis	2	2	5
Physconia grisea	0	0	2
Xanthoria parietina	7	7	9
No change in presence/ absence			
Lecanora expallens	9	9	9
Parmelia caperata	7	7	7
Parmelia perlata	7	7	7
Schismatomma declorans	9	9	9

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LICHENS IN LITERATURE: 3

THE LORD OF THE RINGS
J R R TOLKIEN

Part 3 Chapter 3

'Lead on, Master Brandybuck!' said Pippin. 'Or lead back! We have been warned against Fanghorn. But one so knowing will not have forgotten that.' 'I have not,' answered Merry; but the forest seems better to me, all the same than turning back into the middle of a battle.'

He led the way in under the huge branches of the trees. Old beyond guessing, they seemed. Great trailing beards of lichen hung from them, blowing and swaying in the breeze. Out of the shadows the hobbits peeped, gazing back down the slope: little furtive figures that in the dim light looked like elf-children in the deeps of time peering out of the Wild Wood in wonder at their first Dawn.

Part 3 Chapter 4

But that is nothing to the old feeling of this wood. Look at all those weeping, trailing, beards and whiskers of lichen! And most of the trees seem to be half covered with ragged dry leaves which have never fallen. Untidy. I can't imagine what spring would look like here, if it ever comes; still less a spring-cleaning.'

(Both quotations are descriptions of the Hobbits' encounter with the ancient forest of Fanghorn in: J R R Tolkien, *The Two Towers* the Second Part of *The Lord of the Rings*. George Allen & Unwin.)

Peter Lambley

PERTUSARIA LACTESCENS - OUT OF OBSCURITY!

On his way home from the 1998 BLS *Lecanora* Workshop, Tom Chester left with me a problematical specimen (a scraping) collected from a window sill of Old Struan Church in Perthshire. It had a K+ yellow to red reaction and curious grey 'apothecia' in small, flat radiating clusters, and had the general appearance of an *Aspicilia* that had been ravaged by molluscs! Upon wetting the sample and viewing under the stereomicroscope at ×50, there were revealed grey ellipsoid structures sitting on the surface of the apothecial discs. In a slide preparation these structures were seen to be large grey, simple ascospores that turned violet in K, and unmistakably those of the enigmatic *Pertusaria lactescens* Mudd. The specimen in E of one of Mudd's original collections (from Ayton Moor, Cleveland), has numerous soralia, but no soralia were evident on Tom's specimen. However, a visit to Old Struan Church one week later by Sandy and myself, found that Tom had been highly selective in collecting an abundantly fertile portion, and sparingly fertile and sterile thalli, both with numerous soralia, were also present on the same window sill. Sterile thalli were seen on window sills on the south side of the church and on the sides of some gravestones. Furthermore, I soon after found fertile *P. lactescens* on basalt, close to home in East Lothian.

These finds brought into doubt many records of *Pertusaria excludens*, especially those away from the west coast of Britain, and to some saxicolous records of *Phlyctis argena* - both species having sorediate, K+ yellow to red thalli, containing norstictic acid. Hence, I have revised the material in the Edinburgh Herbarium (E), and the results are presented below.

The differences between sterile material of *P. excludens* and *P. lactescens* are summarized in the accompanying table. In both species, the initial granules in the soralia appear to be smooth and corticate on their exposed surface, and could be considered as isidia; the underlying granules are more loose, ecorticate and generally somewhat smaller in diameter. The measurements in the table encompass both types of granule.

	P. excludens	P. lactescens
Thallus thickness (mm)	0.3–0.8 (–1.2)	0.1–0.4
Soralia appearance	tuberculate, convex; usually flat remaining discrete and well-crowded often becoming confluent	or becoming slightly convex usually delimited
diam. (mm)	0.4–1.2 (–1.8)	(0.2–) 0.3–0.7 (–0.8)
Soredia diam. (μm)	80–220	60–110 (–140)

Specimens of *P. lactescens* where the soralia have become confluent, and especially when the thallus has become grazed by molluscs or abraded, can be difficult to distinguish from saxicolous thalli of *Phlyctis argena*. In most cases, however, the cortex of the thallus or of the initial soredial granules of *P. lactescens* is in some parts grey, owing to a grey-green, K+ violet pigment ('Thalloidima Green'), which is also found in the epithecium and ascospore wall. This pigment can be recognized by flooding a section or squash with K, observing at ×100–×400, but quickly observing the reaction before the preparation becomes obscured by the dense mass blood-red crystals produced by the reaction with norstictic acid. The thallus surface of *Phlyctis argena* may also appear grey, but no K+ violet pigment is present.

The following collections of *P. lactescens* have been identified (specimens in E unless otherwise stated):

ENGLAND. VC 62, North-East Yorkshire: Cloughton Newlands, GR 54/010952, on sandstone of roadside wall, October 1979, *A Henderson* (as *P. excludens*).
SCOTLAND. VC 82, East Lothian: Gullane Point, GR 36/4--8--, on basaltic rocks of upper sea-shore, May 1974, *B Coppins* (as *P. excludens*); Tyninghame, W end of Lawhead Hill, GR 36/599796, alt. 30 m, on upper, sloping surface of basalt rock below N-facing crag, August 1998, *B Coppins* (fertile); Tyninghame, above Bathan's Strand, GR 36/629814, alt. 25 m, NE-facing coastal basalt outcrops, August 1998, *B Coppins & S N Christensen* (fertile). VC 86, Stirlingshire: Loch Lomond NNR, N side of Endrick Water, GR 26/441888, alt. <15 m, on sandstone of dry stone wall, October 1980, *B Coppins* (as *P. excludens*). VC 88, Mid-Perthshire: Pitlochry, near Falls of Tummel, GR 27/90-60-, alt. 120 m, on isolated boulder in field, November 1976, *B Coppins & M Seaward* (as *P. excludens*); Old Struan Church, GR 27/808653, alt. 160 m, on upper surface of window sill, July 1998, *T Chester* (fertile). VC 93, North Aberdeenshire: Sands of Forvie NNR, Hackley Bay, GR 48/02.27, E-facing cliff above sea-shore, August 1983, *B Coppins* (as *Phlyctis argena*).
WALES. VC 42, Brecknock: Crickhowell Church, GR 32/217184, August 1998, *I Pedley & P James* (hb. Pedley).

Correctly identified material of *P. excludens* is represented in E from the following vice-counties: 4, 75, 102, 103, 105, 110, 112 and H39.

Brian Coppins

PORTRAIT OF A COUNTY 2: DORSET

Dorset is a small, but varied lowland county. It has been well recorded since the 1960s with a flora produced by Humphry Bowen in 1976 (*Lichenologist* **8**: 1-33). Since its publication the total number of taxa recorded from the county has risen from 497 to approximately 650, with new species being added annually. A new flora is planned for the millennium. There are at present four lichenologists recording in the county.

Dorset is not a well-wooded county, with only 3% of the county covered by ancient woodland. However, the epiphytic flora remains rich, thanks largely to low atmospheric pollution and the survival of outstanding parklands at Lulworth, Melbury and Sherborne, and remnants of ancient woodlands such as Cranborne Chase woods and Oakers Wood. *Lobaria* species are still present in these sites, but *Pannaria* and *Sticta*, as elsewhere in lowland Britain, appear to be declining. Wayside trees, especially ash, elder, maple and sycamore, are well represented in the more rural and coastal areas and support important populations of *Anaptychia ciliaris, Caloplaca cerina, Parmelia quercina, Physcia clementei* and *P. tribacioides*. Sadly the elms so typical of the Stour Valley and some coastal woodlands have now gone.

The county is famed for its internationally important lowland heathlands in the Poole Basin. *Cladonia* species are well represented, especially on the dune-heath at Studland which supports at least 23 species. Wetter heaths provide a habitat for species with a more northerly distribution including *Cladonia strepsilis, Icmadophila ericetorum* and *Pycnothelia papillaria*. Sadly much heath was afforested just after the war, but interestingly *Imshaugia aleurites* and *Parmeliopsis hyperopta* have colonised pine plantations in Wareham Forest. Old decorticate pines provide a habitat for *Calicium* and *Chaenotheca* species. These plantations were originally fenced using untreated, split hardwood posts. Where these survive, interesting lignicolous communities have developed with *Cladonia, Hypocenomyce, Micarea* and *Trapeliopsis* species, plus some surprises including *Usnea florida* and the only recent site for *Bryoria fuscescens*.

Chalk occupies around a third of the county, but only around 3% of the total outcrop supports species-rich downland. Of this the actual amount of lichen-rich grassland is extremely small. The outcrop from White Nothe near Lulworth to Ballard Cliff near Swanage is most rewarding, as it has been hardened by faulting and is especially rich in species occurring on chalk pebbles (Gilbert 1993; *Lichenologist* **25**: 379-414). The coastal Jurassic limestone is rich in species, especially the Isle of Portland which supports *Caloplaca alociza, C. cirrochroa, C. granulosa, Collema fragile, Lecanactis grumulosa, Poeltinula cerebrina* and *Psora lurida*, among many others.

By contrast, natural acidic rock is extremely rare. The numerous sarsen stones in the Valley of Stones between Little Bredy and Portesham provide a habitat for *Anaptychia runcinata, Aspicila caesiocinera, Buellia saxorum, Candelariella coralliza, Parmelia delisei* and *Porpidia cinereoatra*. Iron stone on the heaths has recently been studied by Vince Giavarini who recorded *Catillaria atomarioides, Opegrapha gyrocarpa, Rhizocarpon oederi, Rinodina lecideina* and *Tephromela grumosa*.

The Dorset coast is famous for important geomorphological features, such as Chesil Beach and the numerous fossil-bearing lias clays and shales. The maritime lichen flora is limited by the amount of available hard rock. Limestone and chert boulders on the east side of Portland and below St Aldhelm's Head support the richest flora. Species present include *Anaptychia runcinata, Caloplaca littorea, C. verruculifera, Diploschistes caesioplumbeus, Dirina massiliensis* f. *massiliensis, Lecanora andrewii, Roccella phycopsis, Sclerophyton circumscriptum* and *Solenopsora vulturiensis*. Some of these species are at the eastern limit of their distribution along the south coast.

Churchyards have received much attention recently and approximately 170 have been surveyed at least once, largely by Humphry Bowen and Vince Giavarini. Iwerne Courtney (or Shroton) churchyard supports 160 species making it one of the richest so far recorded in Britain (see *Bulletin* **82**:17). Just over 300 species have been recorded in Dorset's churchyards including some not recorded in other habitats, such as *Lecanora conferta, L. pannonica* and *L. pruinosa*. Limestone is the dominant rock, but locally granite memorials and ironstone have been used adding valuable acidic rock habitats. South and west of Shaftesbury greensand has been used in many villages and has proved to be a rich substratum, and supports several species otherwise scarce in the county, such as *Acarospora rufescens, Caloplaca crenularia* and *Lecania hutchinsiae*.

There are still many sites to survey and species to discover, and a day spent among Dorset's varied landscapes and habitats can be very a rewarding, and still thankfully, quite a peaceful experience.

Bryan Edwards

SMALL ECOLOGICAL PROJECT GRANTS

Two more small ecological projects have been completed; they are reported on below. Requests for grants have been slow to come in but we have recently received an exciting application from Janet Simkin to survey heavy metal shingle and mine sites in the Northern Pennines (£225). Requests for grants to work on the autecology of species, confirmation of old records, survey of neglected habitats, monitoring the dynamics of populations, conservation-orientated studies and numerous other studies will be considered. Paperwork is minimal, a half page application briefly outlining your costed proposal (in the range £100 to £400) should be sent to Dr. Oliver Gilbert, 42, Tom Lane, Sheffield, S10 3PB.

Oliver Gilbert

SPECIES LOST AND SPECIES REGAINED

Search for *Cetraria juniperina*

This species was recorded last century from Rothiemurchus Forest, part of Britain's largest remaining area of ancient Caledonian pine woodland. This attractive foliose, pale yellow lichen with red-brown apothecia is found throughout Europe and, as its name suggests, is usually found on juniper, *Juniperus communis*. The project, undertaken between April and September, aimed to re-locate this species by searching as wide a range of suitable juniper scrub habitats as possible in proximity to its former site. Twelve chosen locations ranged from the floodplain of the River Spey to the highest juniper in Scotland on Creag Fhiaclach (690 metres ASL) and included diverse soils, aspects, age and forest structure. Local staff managing the forests were made familiar with the species to help broaden the search.

Results: *Cetraria juniperina* was not re-located; we are fairly confident that the species is no longer present. There was no evidence of habitat degradation; the search areas included some of our finest remaining Caledonian pine forest. The diversity and growth of other lichen species show atmospheric pollution is negligible in the area. There is some evidence of a slightly warmer climate in recent decades but this is not linked to any species loss. Therefore it is difficult to explain the apparent loss of *Cetraria juniperina*. A closely related species, *Cetraria pinastri*, has recently been found at two sites in the Scottish Highlands where no previous records existed and five other *Cetraria* species are present in the area. Lichen species on juniper in the study area included: *Loxospora elatinum*, *Lecanora symmicta*, *Caloplaca ferruginea*, *Parmelia glabratula*, *Hypogymnia physodes*, *H. tubulosa*, *Platismatia glauca* and *Usnea* spp.

Acknowledgements: Thanks are due to the British Lichen Society for funding the project, Rothiemurchus Staff, SNH Aviemore, Gus Jones and Stephen Moran.

Search for *Cladonia botrytes*

Cladonia botrytes had not been seen since 1978, but in December 1997 Brian Coppins found a specimen in an area of felled pines at Glenmore. Only 5-10 mm high, with yellow-green podetia and flesh-brown apothecia, it was originally discovered in Britain in 1955 and has been recorded from only 11 localities. Its typical habitat is recently cut *Pinus* stumps in areas of native pine woodland. This survey attempted to locate more sites in the Strathspey Caledonian pine forest. Three areas of search were chosen; Glenmore Forest, Dell Wood, and Abernethy. Survey locations were selected in discussion with forest managers choosing similar sized stumps and felling dates to the one found recently at Glenmore.

Results: Forty-eight specimens were found on 16 stumps at four of the 17 sample sites. This success gives a false impression that the species is common or overlooked. However, the site managers' intimate knowledge of the history and management of each forest enabled pin-point accuracy in locating areas where suitable habitat was present. Due to enlightened Scottish pinewood habitat conservation there are relatively few areas of open forest habitat where large Scots pines have been felled within the past 10 to 20 years. The prevalent clearance of exotic species fails to provide suitable habitat for *Cladonia botrytes*, for example, Sitka spruce is an almost sterile habitat for *Cladonia* species. The commercial practise of treating cut stumps with urea to combat fungal growth is also believed to be detrimental to lichen species.

Cladonia botrytes is an exacting and transient lichen only found colonising decaying cut surfaces, mostly in the cambium area, and not found once other lichens and bryophytes have overgrown the surface. Where it does exist it is scarce growing roughly on only 1 in 25 stumps, felled 10 to 15 years ago.

Associated species: *Cladonia cenotea, C. chlorophaea, C. coniocraea, C. fimbriata, C. floerkeana, C. macilenta, C. ochrochlora, C. squamosa, C. sulphurina, Hypogymnia physodes, Parmeliopsis ambigua, P. hyperopta, Platismatia glauca, Trapeliopsis flexuosa* and *Xylographa trunciseda.*

Acknowledgements: Location of this species would have been impossible without the intimate site knowledge held by forest managers at RSPB (Abernethy), Forest Enterprise (Glenmore), and SNH Aviemore (Dell Woods) who also funded the work.

Sheila Street

IN SEARCH OF TWO RARE COASTAL LICHENS

It was two years ago that I decided to take up the challenge delivered by Oliver Gilbert to try and re-find *Tornabea scutellifera* on the cliffs to the east of Hastings. The second species which has interested me recently is *Umbilicaria grisea* for which the Flora gives simply Jersey, St Brelade's Bay ... very rare. My experiences in searching for these species led me to the conclusion that there must he some correlation between an unsuccessful search for a lichen and naturist beaches! In my search for both, I found myself in company with sun worshippers who were quite unabashed by their nakedness. Perhaps the inaccessibility of both sites has something to do with the presence of naked humanity rather than the rarity of the lichen present there.

I decided to use an ornithological telescope in my search for *Tornabea* as I am not a rock climber of any sort. I then walked from Hastings in the west to Fairlight Glen in the east inspecting every rock face which looked to have any potential. It wasn't until I was east of Ecclesbourne Glen, which is about half way, that I saw any lichens at all. On high buttresses just east of Ecclesbourne Glen, I did see what looked like black tufts on the hard, upper rocks. Further east, one comes to a section of cliff which rises two hundred and fifty feet at least above very spiny, dwarf woodland. It was here that I saw a much richer lichen flora on the cliffs. This included greenish tufts which I took, correctly it turns out, to be *Ramalina subfarinacea*. However, there was also what appeared to be a second species which was smaller and dark brown grey which was present on the very highest rocks. I felt a considerable twinge of excitement as it dawned on me that I just might have re-found *Tornabea*.

Unfortunately, the site is shared by a pair of breeding peregrines, and the staff of the Hastings Countryside Park prohibited any climbing until the end of the breeding season. It was therefore not until January this year that I received the go ahead to arrange for someone to look at the cliff face. Unfortunately due to a fall, Oliver was unable to participate, but I managed to persuade two climbers from the local climbing club to abseil down, and collect specimens.

The problems of getting to the crags were immense. The rocks are extremely friable, and above the cliff edge, a steep earthen slope is completely covered by bramble and gorse. One of the climbers and I did a reconaissance, and sorted out the best way to abseil down to the lichens. It would involve belaying off a convenient tree and abseiling to the cliff edge.

The day of the attempt to collect material dawned. The team met up in the car park above Fairlight Glen and we set off. It took the climbers about two hours to retrieve material of the lichen. It didn't look much like the description in the book of *Tornabea* or like *Ramalina subfarinacea* either, as it was blackened, discoloured and unhealthy

looking. I sent it to Brian Coppins who confirmed my worst fears; it was all *Ramalina subfarinacea*.

I have now also looked at the cliffs to the east of Fairlight Glen to the village of Pett. Just back from the coast at Pett, there are rocks above cottages which support what was the only colony of *Ramalina subfarinecea* in Sussex until it was found at Fairlight. A close inspection with a telescope discounted the presence of *Tornabea* both on the rest of the cliffs and on the outlying rock outcrop. The only cliffs where it might be re-found are 250 feet high at least, and suffered terrible recent erosion. A good climber might find material on the cliffs, but if present, the amounts are too small to be found using a telescope. The stretch of cliffs now suitable is not very long, and permission could easily be obtained from the staff at Hastings Country Park. If anyone wishes to take up the challenge, I would be very willing to make the necessary local arrangements.

My second unsuccessful attempt to relocate a rare plant occurred very recently when I visited Jersey. Although the Flora gives St Brelade's Bay as the site for *Umbilicaria grisea*, notes from a member of the Lichen Society Party who visited Jersey in 1966 indicate that the plant was found on the western side of Ficquet Bay. This is considerably west of St Brelade's Bay and west of le Beauport beach.

During my visit to Jersey, the weather was not good, and I failed in my first attempt to get down to Ficquet Bay. The weather the next day was bright and sunny, and I decided to make a second attempt to reach Ficquet Bay. I pushed my way through the bracken once more, and found a possible, but slightly dangerous scramble through gorse and along a descending rock ledge to the beach. Most of the rocks on the beach were close to, or below high watermark. I decided to walk to the western end and made met a middle-aged man who was stark naked. I tried to ignore the fact and started a conversation. He told me that at low tide for just two hours, it is possible to continue beyond a massive rock buttress into the westernmost part of Ficquet Bay. Unfortunately, it was my last day in Jersey, so any further attempt to find *Umbilicaria grisea* will have to wait for a subsequent occasion.

If anyone has any information about this great Jersey rarity, I would be most grateful to hear from them. During my visit to Jersey, I confirmed that several of the lichens found in 1966 were no longer present. At the time of writing, the last vestiges of the *Lobarion* seem to be lost. Jersey suffers badly from agricultural enrichment and the holiday trade. It therefore seems probable that the current status of *Umbilicaria grisea* as a British plant is doubtful.

Simon Davey

AUTUMN 1998 FIELD MEETING AT ABERGAVENNY

The 1998 autumn meeting from the 23rd to 25th October was based at Abergavenny in the Ty'r Morwydd Field Studies Centre.

The aim of the meeting was to provide information which would help in the management of a number of sites managed by the Countryside Council for Wales and the Brecon Beacons National Park but the weather allowed visits to only two.

In the event rather dire weather forecasts for the weekend proved to be accurate and several members had considerable problems in reaching Abergavenny because of floods, especially those who tried to go via Hereford. Saturday dawned very wet and windy but to prove that lichenologists are not fair weather folk, the party departed for Cymyoy (SO 298234). The first stop was a churchyard and in the church where most of the members found shelter and had an interesting discussion on indoor monuments and inscriptions, ably informed by Ray Woods and Frank Dobson. The collective term 'a porch of lichenologists' was proposed and seemed very apt, as members hesitated for some while before venturing out. Whilst we left Ivan Pedley working the churchyard, the rest of the party climbed up to the lower slopes of Hatterrall Hill to examine the cliffs and scree of Old Red Sandstone. These are somewhat calcareous in nature and vary in lithology. The calcareous element was represented by species such as *Aspicilia contorta, A. calcarea, Caloplaca flavescens, C. flavovirescens, Collema crispum, C. flaccidum, Protoblastenia rupestris* and in crevices *Psora lurida* and *Toninia aromatica.* On the more acid rocks species such as *Acarospora smaragdula, Lecanora orosthea, Lecidella scabra, Ochrolechia parella, Pertusaria amara, P. corallina, Porina chlorotica* and *Rhizocarpon geographicum. Peltigera praetextata* and *P. horizontalis* occurred amongst mossy rocks.

The party then retreated back to the field centre for lunch and the first part of the afternoon was spent examining specimens in the laboratory. Later, when the rain had abated, though not the wind, the party ventured out to work the church at Llanfihangel Crucorney (SO 325206). This was largely built of the local Old Red Sandstone and yielded about 80 species including *Tephromela grumosa.* A wooden seat was examined with considerable care and had *Lecanora pulicaris, L. symmicta* and *L. saligna.*

In the evening Frank Dobson showed a selection of slides that were of his usual high standard.

The weather on Sunday proved rather better, with passing showers but some sunshine. We were joined by several other members who finally beat the floods. We travelled to Crickhowell to explore the spectacular Carboniferous Limestone cliffs of Craig y Cilau National Nature Reserve ((SO 184166). These cliffs and steep slopes are covered by hawthorn scrub with beech (*Fagus sylvatica*), large-leaved lime (*Tilia platyphyllos*) and a number of endemic *Sorbus* species. The large-leaved lime is considered native here, as its

pollen has been found preserved in the mire. Members mostly explored the lower slopes where large limestone blocks had fallen from the cliffs above, together with some from the capping millstone grit. The limestone blocks had a good variety of species including *Caloplaca cirrochroa*, *Collema multipartitum*, *Dermatocarpon miniatum*, *Gyalecta jenensis*, *Petractis clausa*, *Porpidia speirea*, *Protoblastenia calva* and *Solenospora candicans*. Steve Chambers climbed high up to the cliffs and found *Opegrapha paraxanthodes*, in a sheltered overhang, a species whose taxonomy needs clarifying, but is listed in the Biodiversity Action Plan. Other species on the cliffs included *Leproplaca chrysodeta* and *L. xantholyta*.

Later in the afternoon the party split into two groups, some going to Llangattock church (SO211179), others to pay homage to *Parmelia discordans* on the millstone grit at Cefn Onneu (SO165160), by sinkhole near the road at the top of the pass and afterwards, a stop was made at Crickhowell church (SO217183), to look for *Pertusaria lactescens* which had been found previously by Peter James. This was duly refound on one low table tomb, and it was possible to demonstrate its chemical reactions of K + r and Pd + y very clearly. (See also page 20.)

Despite the weather, this was a successful meeting in a scenically beautiful area which still has tremendous potential for new discoveries. Our thanks to Ray Woods for organising it so well.

Peter Lambley

The party about to depart for Craig y Cilau National Nature Reserve near Crickhowell.

SUMMER 1998 FIELD MEETING IN CONNEMARA, IRELAND

25th April - 2nd May 1998

This meeting was based near Spiddal for the first few days, and then by Lough Corrib on the Dooras peninsula. It proved to be a relaxed and useful tour with participants seeing over half the 700 lichens and lichenicolous fungi now known in the region. More than 30 vice-county additions were made during the field trip and on preparatory and follow-up day trips. We all left with a much better understanding of the lichen communities and habitats of Connemara.

After the first day which we spent getting our bearings, we concentrated on recording in specific lichen habitats in all the sites. The richest oceanic wood in Connaught, Derryclare Wood National Nature Reserve fulfilled expectations with 150+ spp, from where we added 10 species to the vice-county list. The Kylemore - Corranellistrim limestone pavement, 8 km ESE of Oughterard, is a superb area which supports the typical Burren limestone lichen flora (McCarthy & Mitchell 1988). However, the highlight of the meeting for most participants was the superb coastal heathland on Gorumna, Lettermullan & Crappagh, with South Connemara group amphibolite rocks yielding some 200-250 spp. without undue effort. This area has a relatively low rainfall for western Ireland (c. 1000 mm p.a.) and seems to be somewhat warmer than the rest of Connemara. The southern element is undoubtedly better developed than we recorded and several crustose lichens more familiar on coastlines of SW England should turn up in due course.

Day 1

We started in Shannawoneen wood, (map reference M1224 and M1225), an oak wood on peaty soil over granite. The roadside walls yielded some *Lobaria scrobiculata, Sticta sylvatica, Leptogium lichenoides* overgrowing bryophytes and the familiar range of *Hypogymnia physodes*, *Parmelia caperata, P. saxatilis, Porpidia tuberculosa, Ramalina siliquosa, Tephromela atra, Usnea flammea* with parasites *Abrothallus microspermus* anamorph, *A. parmeliarum, Biatoropsis usnearum, Cecidonia xenophana, Endococcus propinquus, Homostegia pigottii, Lichenoconium erodens* and *Phacopsis oxyspora*. At the edge of the wood, we found the *Abrothallus suecicus* anamorph and *A. parmotrematis,* on oak branches, *Herteliana taylorii* and on holly *Arthonia ilicina, Celothelium ischnobelum, Graphis elegans, Schismatomma niveum,* a new vice-county record (nvcr), and *Stenocybe septata.* Further up the wood by the river, *Lobaria pulmonaria* was seen. In open ground with Atlantic blanket bog north-west of the wood, huge granite erratic blocks supported *Bryoria fuscescens* (nvcr), *Hypogymnia physodes, Mycoblastus sanguinarius* (nvcr), *Ochrolechia androgyna, Parmelia caperata, Sphaerophorus globosus* with *Fuscidea cyathoides, Porpidia*

tuberculosa and *Parmelia omphalodes*. After lunch in Bearna, we spent the afternoon at Rusheen Nature Reserve, (M2523), a tiny coppice wood of one acre by the estuary. Rocks on the sea wall supported *Anaptychia runcinata, Caloplaca marina, Caloplaca crenularia, Dermatocarpon miniatum, Lecanora helicopis, Ochrolechia parella, Ramalina siliquosa, Rhizocarpon richardii, Tephromela atra, Verrucaria maura* and *Xanthoria parietina*. The maritime lichen chart was circulated to novices, who were asked to pick three thalli on the wall for naming, and their conclusions were checked; with careful observation most people fared well. *Aspicilia leprosescens* was quite common on the wall and this prompted a search for *Stigmidium aggregatum* which proved unsuccessful. This lichenicolous species was originally described from a specimen of *A. leprosescens* (not *A. calcarea*, Mudd 1861: 298) on coastal slates in Co. Down in the 1860s, and it has not been seen on this host since then (Hawksworth 1983: 14). The trees had a limited flora, but one of two surviving elms yielded *Collema subflaccidum*.

Day 2

We drove to the causeway leading out to Crappagh Island, W of Lettermullan, (L8222). This island has granite in the north and amphibolite in the south. A traverse of the island demonstrated the clear floristic distinction between dry stone walls with *Ochrolechia parella, Ramalina siliquosa, Tephromela atra* etc. and flushed bedrock with *Aspicilia caesiocinerea, Cladonia subcervicornis, Parmelia conspersa* and *P. loxodes*. On the west coast of Crappagh, granite joints with thrift roots supported *Agonimia tristicula, Collema furfuraceum, Degelia ligulata* and *Dermatocarpon miniatum*. Some slabs further south with the *Parmelia conspersa-P. loxodes* flush assemblage had *Marchandiomyces corallinus* on both *Parmelia* spp. and *Lecanora muralis*. On *Parmelia conspersa*, several spots were found but when later examined these proved not to be a fungus but isidium scars and burrows of mites. The search for *Abrothallus caerulescens* and *Stigmidium xanthoparmeliarum* in Connemara goes on ! Ivy (*Hedera helix* ssp. *hibernica*) is a brilliant saxicolous *Lobarion* indicator on crags in very exposed treeless parts of Western Ireland. An area of amphibolite crags on Crappagh Island (L829225) with some ivy and underhangs inland supported a challenging range of white saxicolous crusts characteristic of Atlantic coastal heaths: *Arthonia atlantica, Coccotrema citrinescens, Diploicia canescens, Dirina massiliensis* f.*sorediata* (nvcr), *Herteliana taylorii, Haematomma ochroleucum, Lecanora gangaleoides, L. rupicola, Lecidea phaeops, Ochrolechia androgyna, O. parella, Pertusaria albescens, P.* cf. *chiodectonoides, P. corallina, P. excludens*, a fascinating crust which turned out to be *P. monogona* (nvcr), *P. pseudocorallina, Porpidia cinereoatra, Sclerophyton circumscriptum and Tephromela atra*. The lichens, *Anaptychia runcinata, Fuscidea cyathoides, Lecanora sulphurea, Pertusaria flavicans, Ramalina cuspidata, Rinodina luridescens, Rhizocarpon geographicum* and

Sphaerophorus globosus added colour and texture to the sward. The *Lobarion* potential was confirmed when a patch of *Lobaria virens* was found. This locality was the sole site for *Arthonia diploiciae* (nvcr), and had the best developed *Sclerophyton circumscriptum* assemblage the meeting. In the mid-afternoon, we went to Toindubh, a headland of south-west Lettermullen (L8221). Here a north-west facing amphibolite cliff yielded a spectacular 50 m long *Lobarion* element with *Degelia atlantica, Heterodermia obscurata, Leptogium britannicum, L. cyanescens, Lobaria pulmonaria, L. virens, Nephroma laevigatum, Parmeliella triptophylla, Peltigera horizontalis*, a substantial colony of *Pseudocyphellaria crocata* (nvcr), *Sticta fuliginosa*, among *Anaptychia runcinata* and strands of *Ramalina cuspidata* over a foot long. The usual white saxicolous crusts were here. On a traverse to pillow-lavas on the south side of the peninsula, *Degelia ligulata* turned up frequently again on old *Armeria* stems. The most obvious lichen parasites were *Dactylospora parellaria* on *O. parella, Sclerococcum sphaerale* on *Pertusaria corallina* and *Marchandiomyces corallinus* on *Ramalina subfarinacea*.

Day 3

Having begun to get to grips with the superb oceanic lichen flora on amphibolite, we resumed on the south-east coast of Gorumna Island (L8921). The foreshore yielded *Pyrenocollema halodytes, Verrucaria striatula, V. mucosa, V. maura, Stigmidium marinum, Lichina pygmaea,* and further up *Aspicilia leprosescens* (without any parasites), *Lichina confinis, Lecanora albescens, L. fugiens, L. helicopis, Caloplaca marina, C. thallincola* and the now familar *Agonimia tristicula, Collema furfuraceum, Degelia ligulata, Dermatocarpon miniatum* community. *Solenopsora holophaea* and *S. vulturiensis* were very scarce and *Polychidium muscicola* was a slight surprise in the *Schistidium maritimum* zone. Ledges with *Cladonia rangiformis* and *Peltigera rufescens* supported a lobulate *Nephroma*, provoking debate that it might well be *N. tangierense*, a claim still requiring confirmation. A careful search of a *Plantago* sward with bare clay yielded *Moelleropsis nebulosa* and *Verrucaria bryoctona* (nvcr), though some expected terricolous species were not found. Calcite veins in the amphibolite added *Caloplaca citrina, Catillaria lenticularis, Gyalecta jenensis, Lecanora albescens, L. muralis, Toninia aromatica* and *Verrucaria nigrescens*. After a picnic lunch we continued to search for new niches. Creeping willow here had a limited epiphyte flora with the following species occurring mainly on old stems of the largest bushes: *Arthonia radiata, Caloplaca cerina, Fuscidea lightfootii, Lecania erysibe, Opegrapha atra, Physcia tenella, Ramalina farinacea* and *Xanthoria parietina.* After getting a bit blazé about the uniformity of the oceanic grey-zone element with an *Ochrolechia parella, Ramalina siliquosa, Schaereria fuscocinerea, Tephromela atra* assemblage on prominent rocks and *Cecidonia xenophana, Coccotrema citrinescens, Herteliana taylorii, Lecidea phaeops, Nephroma laevigatum, Normandina pulchella, Pertusaria*

flavicans, etc., on wet seepages, we came upon a quite distinct assemblage on an east sloping slab with *Coelocaulon aculeatum, Cladonia portentosa, C. subcervicornis, C. uncialis, Hypogymnia physodes, Micarea lignaria, Parmelia caperata, P. omphalodes, P. saxatilis, Placynthiella icmalea, Platismatia glauca, Sphaerophorus globosus, Stereocaulon vesuvianum, Trapelia coarctata* and *Trapeliopsis pseudogranulosa*. This element is characteristic of peat bogs with granite blocks which dominate the northern half of Gorumna Island. During the late afternoon as we were flagging, a few extra species began to appear, including *Collema subflaccidum* and *Nephroma parile* on ivy stems in a damp sheltered gulley. A careful study of a large south-facing outcrop with *Lecidea fuscoatra, Lecidea fuliginosa, Rhizocarpon obscuratum, Schaereria fuscocinerea* indicated that *Cecidonia xenophana* was very common on *Porpidia cineroatra*, and that *Pertusaria excludens* was a frequent component of the amphibolite whitewash. On *Pertusaria flavicans* close to ground level the typical brown arcs of *Rhizocarpon advenulum* appeared, and we initially considered an infection on *Pertusaria pseudocorallina* to be the same species. In retrospect, *Cyphelium marcianum* seemed a more likely candidate, and on a revisit this autumn the occurrence of *Cyphelium marcianum* (nvcr) was confirmed. In the late evening, a very difficult pulvinate *Pertusaria* was collected on a cliff, and the rarely recorded *Lecanora subcarnea* was extracted from an underhang.

Day 4

After such a pleasant previous day we restarted a few kilometres west at a harbour on the south coast of Gorumna, (L879212). We began on a wet crag clothed with *Herteliana taylorii, Lecidea phaeops* and *Pertusaria flavicans*. A calcite lens about a foot wide in this cliff held some nice additions of now ruderal species around *Clauzadea monticola, Verrucaria hochstetteri, Caloplaca citrina*, and some *Lepraria lesdainii* (nvcr). A sunny south-east facing slab at the harbour with *Anaptychia runcinata, Buellia ocellata, Lecanora muralis, Parmelia conspersa, P. loxodes*, hosted *Sphinctrina tubiformis* (nvcr) on *Pertusaria pseudocorallina*. A brisk march south-east to the coast for lunch at Aillewore (L8820) brought us to a wonderful exposed shore, white with lichens inland and grey with *Degelia ligulata* in the crevices in the *Armeria* belt at the top of the shore. Scrambling further east *Pannaria leucophaea* was added to the Gorumna list, and *Parmeliella triptophylla* was seen in a few spots. After two and a half days looking at amphibolite whitewash, a burnt *Lecanora polytropa* with Carboneoid ascomata finally sent me completely over the edge. Three microscope slides later and a 2700 mile drive this summer to see a specimen in GZU proved that it was definitely not *Carbonea supersparsa*!

Day 5

Derryclare wood (L8349) was a pleasant change of scene, in the best quality oceanic woodland habitat in Connemara (Folan & Mitchell 1970), with the demands of field identification of epiphytic *Lobarion* macrolichens and oceanic corticolous crusts. *Collema fasciculare* (nvcr) on hazel, *C. furfuraceum, C. subflaccidum, Degelia atlantica, D. plumbea, Leptogium brebissonii, L. burgessii, L. cyanescens, L. cochleatum, L. gelatinosum, L. lichenoides, Lobaria pulmonaria* with *Plectocarpon lichenum (nvcr), L. virens, Nephroma laevigatum, Pannaria conoplea, P. pezizoides, P. rubiginosa, Parmeliella parvula* (nvcr), *P. testacea* (nvcr) on hazel, *P. triptophylla, Peltigera horizontalis* and *P. praetextata.* A feature was the presence of *Sticta canariensis* in massive swards on ash, *S.* cf. *dufourii* frequently with *Hemigrapha astericus* on joined morphs, *S. fuliginosa, S. limbata and S. sylvatica.* A quick look at the hazel yielded *Arthonia didyma, A. ilicina, Arthopyrenia antecellans, Celothelium ischnobelum, Graphina anguina, Graphis elegans, G. scripta, Opegrapha atra, O. brevis, Phaeographis smithii, Porina aenea, Pyrenula occidentalis, Thelotrema lepadinum, T. macrosporum* auct. and *T. petractoides.* Mature oaks trunks were quite rich with *Acrocordia gemmata, Agonimia octospora* (nvcr), *Arthonia spadicea, A. vinosa, Biatora epixanthoides* (nvcr), *B. sphaeroides, Catillaria atropurpurea, C. pulverea, Chrysothrix candelaris, Cladonia* spp., *Dimerella lutea*, several species of *Lepraria* s.lat., *Lecanactis abietina, Megalospora tuberculosa, Normandina pulchella, Ochrolechia androgyna, Opegrapha varia, Pachyphiale carneola, Phyllopsora rosei* (nvcr), *Pyrrhospora quernea, Thelopsis rubella* (nvcr) and *Thelotrema lepadinum.* Ash trees also yielded *Bacidia rubella, Dimerella pineti, Gyalecta truncigena* (nvcr) and *Strigula taylorii* (nvcr). A species with large black apothecia took a while to register as *Bactrospora homalotropa.* A bank leading to the wood supported *Bryophagus gloeocapsa* (nvcr). The saxicolous flora in the wood includes some endolithic *Verrucaria* species on limestone and the usual siliceous lakeshore species, *Collema flaccidum, C. glebulentum, Dermatocarpon miniatum* and *Staurothele fissa.* The overriding impression in Derryclare is of the vulnerability of some species with very small populations, the generally simplified epiphytic flora on many individual tree stems, and the exposure and acidity of the upper margin of the wood where it is adjacent to conifer clear fell.

Day 6

We slowly climbed Doughruagh from the south west flank (L7259 to L7559). A rather uneventful siliceous rock flora with *Cladonia* spp., *Coccotrema citrinescens, Herteliana taylorii, Hymenelia lacustris, Lecidea lithophila, L. phaeops, Micarea lignaria, Pertusaria flavicans, Porpidia macrocarpa, Stereocaulon vesuvianum, Tremolecia atrata* and so on were seen on the ascent. The most enlightening feature

was the rediscovery of mica-schist overhangs (L7459) about 2 m to 4 m high, now fringed with rhododendron, a habitat from which Charles du bois Larbalestier probably collected several rare oceanic species in the 1870s. In one patch, several interesting oceanic species such as *Bacidia carneoglauca, Enterographa hutchinsiae, Lecanactis abietina, Haematomma ochroleucum, Thelotrema lepadinum, Tylothallia biformigera* and a tiny black stipitate lichen which was passed off as nascent *Pilophorus strumaticus*, were found growing directly on micaschist. After a brave initial attempt to make the top, we stopped to view the Kylemore 'assart', a rounded field cleared from woodland in the valley below. The gabbro on the summit plateau L7559 was remarkably bare of lichens. At a flushed stream head gabbro cobbles set in very thin peaty beds were covered in *Amygdalaria consentiens* (nvcr), *Ephebe lanata, Hymenelia lacustris, Lecidea lactea, Pilophorus strumaticus, Porpidia contraponenda* (nvcr), *P. crustulata* and *P. tuberculosa*. This is a very distinct assemblage with *Cladonia bellidiflora, Micarea leprosula* and *Pycnothelia papillaria* as terricolous associates and is probably restricted to oceanic mountain summits in Ireland, as suggested by Gilbert & Fryday (1996). Prominent blocks on the west slope have a more traditional siliceous rock flora with *Fuscidea cyathoides, Pertusaria corallina, Rhizocarpon geographicum, Sclerococcum sphaerale*,whilst on some blocks *Toninia thiopsora* and *Miriquidica complanata* (nvcr) were seen, indicating that the upland element may be more diverse.

Day 7

Using rowing boats we explored the lakeshore and numerous islands of Lough Corrib on the north side of the Dooras Peninsula,(M0850 & M0851). There are lots of little islands, some no more than small rocks less than 10 m across, whilst others are decapitated drumlins covered in young woodland with shoals of small cobbles by the shore. The composition of the flora is the fairly normal *Lecanoretum subfuscae* association with some *Parmelietum perlatae*, and a relict *Lobarion* element from old oak trees. One of the characteristics of this part of Ireland is the constancy of *Lecanora jamesii, Fuscidea lightfootii, Caloplaca ferruginea* and *Japewia carrollii* with *Lecidella elaeochroma, Arthonia radiata, Lecanora chlarotera* and various other crusts on the fine branches. *Evernia prunastri, Normandina pulchella, Parmelia exasperata, P. perlata, P. revoluta, P. saxatilis, P. sulcata, P. subaurifera, P. subrudecta, Physcia aipolia, P. tenella, Ramalina calicaris, R. farinacea, Usnea subfloridana* and *Xanthoria parietina* are the main epiphytic macrolichens on slightly larger branches. *Physconia distorta* and *Ramalina fraxinea* appear to be later colonists, joining the flora of larger trees. On the lakeshore bird-perch rocks *Candelariella vitellina, Caloplaca crenularia, Lecanora albescens, L. campestris* (infested with *Muellerella pygmaea* var. *athallina*, nvcr), *L. dispersa, L. muralis, Ochrolechia parella, Physcia caesia, P. tenella, Ramalina cuspidata* and *Xanthoria parietina* are regulars on large blocks. After making lists for several islands, we rowed ashore.

Day 8

A relaxing day was spent at Rosshill M1057 on the shores of Lough Mask. After taking the wrong path, we finally arrived at the intended spot where we found *Solorina spongiosa, S. saccata, Collema undulata* f. *granulosa* (nvcr), *Peltigera rufescens* and *Karsteniomyces tuberculosus* (new to Ireland). The remarkable karst 'Lough Mask holes' were demonstrated by Dr Mike Simms who explained their formation. Limestone outcrops next to the calcareous lakeshore fens, with *Hymenelia prevostii* (nvcr), *Collema polycarpon* and so on, were very interesting. Rounded siliceous boulders, glacial dropstones forming depressions in the karst pavement, provided a totally distinct niche for *Hymenelia lacustris, Micarea erratica, Ochrolechia parella* and *Rhizocarpon lavatum.*

Day 9

On the advice of Marianne Whilde the party remaining decided to visit a top quality dry karst site, east of Oughterard in the townlands of Corranellistrum (M1940) and Kylemore, not to be confused with Larbalestier's home turf in the 1870s at Kylemore, Letterfrack. This site supported a range of calcicolous crusts such as *Petractis clausa, Thelidium incavatum, Verrucaria dufourii, V. pinguicula, V. caerulea, Acrocordia conoidea, V. nigrescens, V. glaucina, V. hochstetteri, V. parmigerella, Staurothele rupifraga, Polyblastia deminuta, Placynthium nigrum,* the much overlooked lichenicolous *Caloplaca* cf. *polycarpa* on *Verrucaria baldensis, Aspicilia calcarea, Farnoldia jurana, Clauzadea immersa, C. metzleri, Lecania cuprea, Caloplaca flavescens, Dermatocarpon miniatum, Gyalecta jenensis, Cladonia pocillum, C. rangiformis,* and *Toninia aromatica.*

The party dispersed in mid-afternoon.

References

Folan & Mitchell, (1970) *Proc. R. Ir. Acad.* **70B**:163-170.
Gilbert & Fryday, (1996) *Lichenologist* **28**:113-127.

Howard Fox
National Botanic Gardens, Glasnevin, Dublin 9, IRELAND

LICHEN CONSERVATION BIOLOGY

An International Conference on Lichen Conservation Biology (Licons) will be held at the Swiss Federal Institute for Forest, Snow and Landscape Research (WSL) Birmensdorf, Switzerland from the 30th August to the 3rd September 1999, organised by Christoph Scheidegger with assistance from: Wendy Strahm of the IUCN, Gland; Klaus Ammann of the Planta Europa Botanical Garden, Bern; and Pat Wolseley at the Natural History Museum, London.

The conference will concentrate on methodological aspects of conservation biology of lichenised fungi but it is hoped to include contributions on the conservation of other ecologically related organisms such as bryophytes, algae and non-lichenised fungi. Potential participants include conservation biologists, lichenologists, mycologists, bryologists and phycologists.

Conservation biology has attracted increasing attention in science, government and education. During the past 10 years the public awareness of the present biodiversity crisis has shifted from a few flagship species towards general biodiversity. However, the scientific knowledge of major aspects of conservation biology of lichenised fungi is still very incomplete which impedes the development of effective conservation strategies. Specific topics related to lichen conservation include their symbiotic way of life, the population biology of rare lichens, and lichen sensitivity to air pollution and environmental changes. Epiphytic lichens deserve special methodical attention because their conservation is intimately related to the life cycle of their substrata. It is evident that conservation strategies for epiphytic lichens may be similar with those for phanerogamic and cryptogamic epiphytes.

Topics included are: 1: Habitat conservation and sustainable management, 2: Specific problems of the conservation of primeval forest lichens, e.g. the conservation of *Erioderma pedicellatum*: a case study from the European and Canadian perspective, 3: Conservation strategies: Small-population biology and species protection, 4: Lichen Red lists - how to apply the IUCN categories? 5: Biogeography and Conservation priorities, 6: Air pollution and environmental changes. Papers and posters will be published and the registration fee of *c.*300 Swiss francs will include the proceedings. There will be a post conference excursion from Friday September 3rd to Tuesday September 7th costing *c.*600 Swiss francs. You will find further information on internet address: http://www.wsl.ch/events/events.html

If you are interested in contributing or in attending this workshop please contact Dr Christoph Scheidegger or Pat Wolseley as soon as possible after you receive the *Bulletin*. Dr Christoph Scheidegger, Swiss Federal Institute for Forest, Snow and Landscape Research, CH-8903 Birmensdorf Switzerland, Fax: ++41 1 739 22 15, email: scheidegger@wsl.ch

C Scheidegger and P Wolseley

'WIDER STILL AND WIDER" - CHURCHYARD PROJECT ANNUAL REPORT 1998

Data Collection

The project continues to extend its boundaries and widen its scope and, in consequence, the annual report is increasingly difficult to produce. More than ever, I begin with the fear that I will fail to mention someone or something.

The accompanying map (see page 42) charting the current progress of churchyard surveys both reveals and conceals the efforts of a relatively small band of individuals. Each black dot indicates that at least one churchyard within the 10 km square has been thoroughly surveyed, while an open circle represents a brief or partial survey. Two of the blank squares in the lowland area (52/79 and 53/34) do not have any churches and there are many more in the upland areas. The black dots conceal, however, the immense amount of effort put in by recorders and the considerable mileage they may have covered. The map itself took some time to set up and I am grateful to Mark Seaward for producing it. The next step - a huge and probably painful one - will be to transfer the immense amount of data already gathered to Biobase - so that it can be interrogated and distribution maps produced. Please examine the map carefully. **It is essential - as a first step - to ensure that all existing records of churchyard species whether on mapping cards or in field note books are passed on either to myself or to the relevant coordinator, as well as to Mark.** It is essential also that the data is as accurate as we can possibly make it.

As far as the designated lowland area is concerned, by the time you read this, there should be little more than a dozen squares still to do and, with luck, these will be completed before the millennium. Three of the Churchyards Committee spent a weekend in June with Peter Lambley in mid-Norfolk and surveyed eleven sites. Over 94 species were recorded at Scarning and 86 at Swanton Morley making them, currently the two richest churchyards in Norfolk. At the end of one day we visited the only site of a species previously named as *Lecania baeomma* on a south-facing, brick boundary wall at Hoe (GR53/91) and found by Peter Lambley in 1979 (see P W Lambley 1988, *The Lichen Flora of Norfolk* Trans. Norfolk Nat. Soc. **28**(3): 201). Ivan Pedley and I were immediately convinced that the lichen was *Lecanora pannonica*, a fact since confirmed by Brian Coppins and Peter James. I hasten to add that the original determination was prior to our knowledge of the existence of *L. pannonica*. It was abundant and intermixed, as is typical, with *Tephromela atra* and *Lecanora sulphurea*. It is strange, however, that it is the only recorded site in the county.

Mark Seaward also continues regularly to send me records of Lincolnshire churchyards. Over 130 sites have now been surveyed and it was exciting to hear that a recent visit has resulted in a rare find - *Ramalina capitata* - as reported on page 52.

Last year's report outlined progress in the more upland vice-counties of Derbyshire and Pembrokeshire and in northern England generally (*Bulletin* **81**:22-24). Since then, Bridget Ozanne and Simon Davey have visited a number of churchyards in the Channel Islands. As a result St Brelade's on Jersey now has 128 taxa including both *Roccella* species on oaks as well as stone. Simon also found *Dirina massiliensis* f. *sorediata* on oak! Norman and Florence Hammond have surveyed eight sites in County Wexford and 23 in Northern Ireland, while Peter James and Ivan Pedley have studied a similar number in Mid-Wales. Barbara Benfield extended and updated our knowledge of churchyards in Devon, and Ann Allen, our south-west co-ordinator, with the help of Barbara Hilton has carried on the good work and is setting up a database.

The *Lecanora* Workshop in July gave three of our committee members the opportunity to meet up again with our Scottish co-ordinator, Sheila Street, and to visit the church at Old Struan in Mid-Perth (GR 27/86) and the old ruin and its replacement at Crathie (GR 37/29) adjacent to the Balmoral estate. Old Struan - seemingly not especially rich on first appearance - yielded 126 species, some new to the national churchyard list, including *Coelocaulon aculeatum*, *Lecidea auriculata*, and best of all fertile *Pertusaria lactescens*, new to Scotland (see page 20). I was delighted to play a part in helping to clarify the Mudd-ed waters surrounding this lichen, not least because Ayton Moor is just three miles from my place of birth! As so often happens, once a species is established as present, it begins to turn up elsewhere. Within a week or two, it was found not only at other sites in Scotland but also in sixteen churchyards in Wales by Peter James and Ivan Pedley!

On my way to and from Kindrogan, I was fortunate enough to survey three churchyards with Brian and Sandy Coppins - two in East Lothian and one in Berwick. This was a further opportunity to learn to recognise unfamiliar, upland calcifuges such as *Aspicilia grisea*, *Fuscidea praeruptorum*, *Lecanora caesiosora*, *Lecidea plana*, *Miriquidica leucophaea*, *Rimularia furvella* and *Tephromela grumosa*. Like *Lecania baeomma* mentioned earlier, the *Tephromela* could easily at first glance also be mistaken for *Lecanora pannonica*. It was also helpful to make small collections of two recently named *Lepraria* species - *L. jackii* and *L. rigidula* - in the hope of recognising them again on home ground. The one disappointment on the return journey was being unable to find a trace of what had been the rarest British churchyard lichen, *Calicium corynellum* at Bywell in Northumberland. This red data species was found by Oliver Gilbert in 1972. It would appear now to be extinct, although I hope that on his next visit Oliver will prove me wrong.

Editor's Note: Oliver Gilbert has since refound it at Bywell on a visit with local lichenologists in October 1998.

Conservation

One of our main tasks this year has been to target the people who are responsible for the upkeep and repair of church buildings and make them more aware of lichens and their importance. In March Frank Dobson and I had a very positive meeting with John Fidler, Head of Architectural Conservation at English Heritage, while in May I was well received when I made a presentation to architects and surveyors in the Peterborough Diocese. The Norwich Diocese has an ecologist, Dr Bob Leany, as a permanent advisor. He has site lists of the rarer lichens and ferns and is informed of imminent building work so that, whenever possible, he can give relevant, on-site conservation advice. This seems to be an approach worth publicising in the hope that it will be taken up elsewhere.

Education & Promotion

The **Churchyard Factsheet** - now in its second edition - was produced to provide information for non-members and demand for it has continued to grow. Thanks to Jeremy Gray, the text of both the green leaflet, *Churchyard Lichens*, and the factsheet is now on the Internet and I have already had enquiries from abroad. As a result of correspondence with a Belgian student, Chantal Alenus, I was sent a copy of a pollution project carried out by schoolchildren in the environs of Brussels involving the measurement of the thalli of *Lecanora muralis*. I am hoping that the basic idea with modifications can be incorporated into the long-term educational initiative involving lichens set up by the Brent Ecology Unit in North London and described briefly in the last *Bulletin*. The Brent ecologists are keen to involve younger children as well as sixth-formers.

For the second year running, I worked with the sixth form at St Edmund's College in Hertfordshire. The project focused on the distribution of four common species on limestone headstones and, in light of the previous year's experience, was revised and much improved. Shortly, I shall return to the school to work with the oldest children of St Hugh's, the Junior Department.

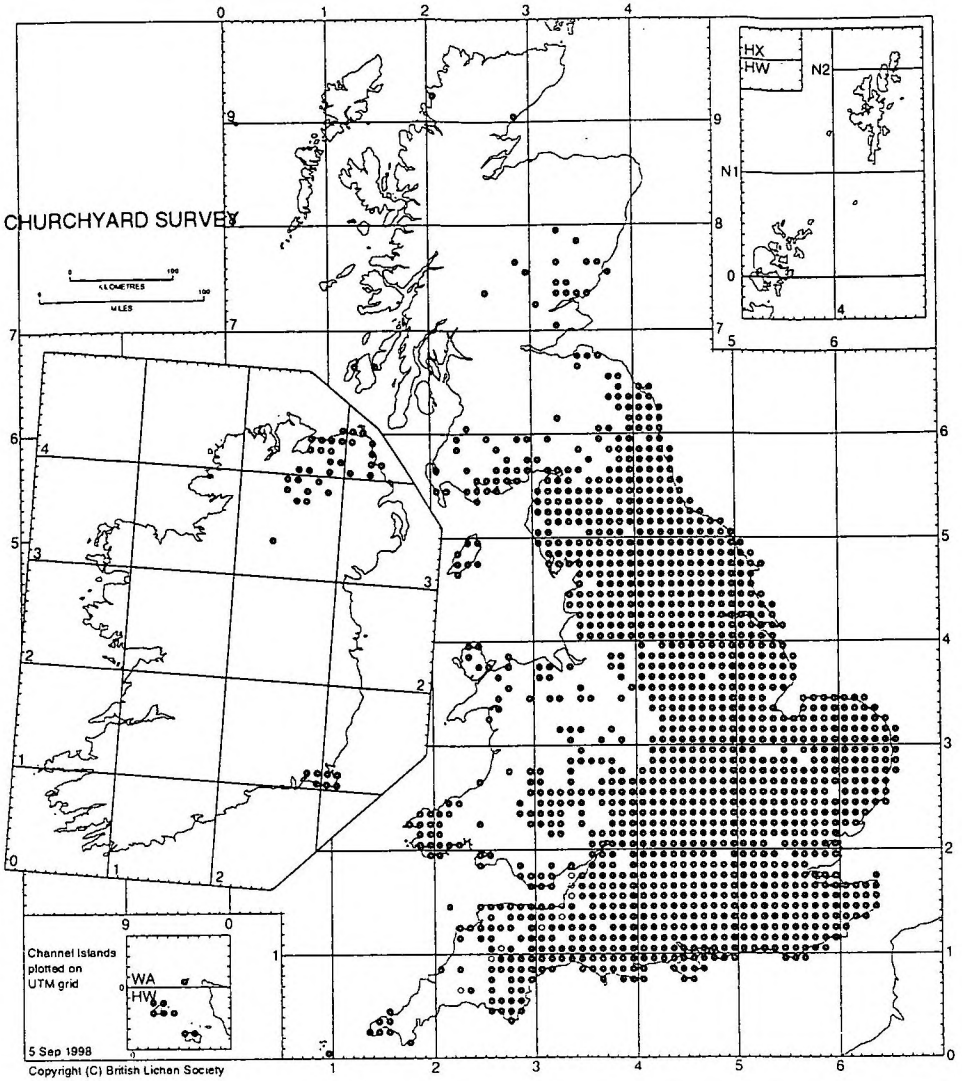
We received further publicity when the lead article in a recent edition of *The Living Churchyards & Cemeteries Newsletter* featured the lichen survey of Stroud Cemetery which was instrumental in its designation as a Key Wildlife Site in Gloucestershire. In the same issue our identification sheets were publicised and as a result the original batch of 300 sets was soon completely sold out and a further hundred had to be printed. Some of these have already been used in another long-term project in Rutland set up by Tony Fletcher. In this case, the participating primary schools are to use photographs as a means of collecting data and monitoring changes.

As well as reaching out to others, we need constantly to re-educate ourselves both individually and in groups - to learn from each other. At least partly with this in mind, the first newsletter for active churchyard workers was issued in February (see *Bulletin* **82**:34) and the dialogue so far engendered has been encouraging. 42 copies of the second issue of **Stone Chat** were distributed in September. It included 'The Churchyards of North & South Derbyshire' by Oliver Gilbert and Ivan Pedley, a 'Focus on *Bacidia*', as well as the regular feature 'Chippings' - a collection of small items of news and interest. The newsletter is sent out only on request and so, if you are not already on the mailing list and would like a copy of the third issue due in February, please let me know (Tel:01280-702918). The next Focus will be on *Pertusaria* in preparation for the Scillies workshop.

As potent as the printed word may be, it is not as valuable as the face-to-face interaction of a workshop or the sharing of field skills actually in the field. Details of the third Knuston Hall weekend course, **Exploring Churchyard Lichens** (7-9 May 1999), are given in the accompanying *Field Meetings Programme*. This year's course was again fully booked and six BLS members attended. At the request of participants, a series of Saturday follow-up meetings were arranged. By the time you read this four such meetings will have been held - two (in August and September) at Wappenham in south Northants and two (in October and November) in the neighbouring village of Helmdon. The group - known, at least for the time being as **ChyLIG** - will continue to meet regularly next year from February onwards at a variety of churchyard venues in the Brackley area, and Claire Leather, who was on the course, has kindly offered to act as co-ordinator (see *Field Meetings Programme*). In preparation for the two Wappenham meetings, I have spent more than thirty hours at a site already visited many times before. I can still remember the excitement of the first visit with Chris Hitch in 1984. In a comparatively short time we found over 70 species and it was clearly a churchyard of note. The recent intense search has involved counting, numbering, mapping and examining all of the memorials, counting and examining all of the parapet stones of the north boundary wall and using a ladder to survey the higher window sills and buttress plinths. Each visit, without fail, has revealed new treasures and the species list is now double the original total, exceeding 140.

There is a well-known phrase "Never mind the quality feel the width". As we become part of the world-wide web and both requests and data come in from increasingly far-flung places, the width can indeed almost tangibly be felt. However, as we reach out further and ever further, it is necessary to remind ourselves that our reach has a nasty habit of exceeding our grasp! In looking back over the year, the two most valuable experiences for me personally have been, on the one hand, learning more about unfamiliar species in unfamiliar surroundings a long way from home and alongside people of the calibre of Brian Coppins and Peter James and, on the other hand, looking long and intensely at a churchyard on my doorstep in order to convey something of what I have learnt and am learning to others. Quality of looking and quality of learning are perilously ignored.

Tom Chester


CHURCHYARD SURVEY
KILOMETRES
MILES
HX
HW
N2
N1
Channel Islands
plotted on
UTM grid
WA
HW
5 Sep 1998
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OVERLOOKED INVERTEBRATE ACTION PLANS

It is always a bonus to find other livestock with an interest in lichens albeit as a sideline. This August, lacewing larvae seemed very busy. They can be recognised by their large mandibles, but more eye-catching are the back-packs with which they try to disguise themselves. Droppings, lichen and moss bits, debris and fine threads are collected on hairs along the abdomen. While inactive the hairs are flattened and the back-pack folds up with them, but, when they are active and with hairs raised, any predator is likely to take a mouthful of debris and perhaps the next step to lichen dispersal.

Barbara Benfield

LICHEN LISTS ON WEB SITE

The Joint Nature Conservation Committee (JNCC) web site now includes a list of all species which receive special protection under the Wildlife and Countryside Act 1981 (Schedule 5 for animals and Schedule 8 for plants and fungi). As most BLS members will already know, four more lichens were added to Schedule 8 in 1998: *Alectoria ochroleuca, Catolechia wahlenbergii, Cladonia convoluta* and *Enterographa elaborata*.

Also on the site are lists of the status of species for a number of groups, including lichens. All Red List species (*Extinct, Critically Endangered, Endangered, Vulnerable*), according to the published Red Data Book, and species in the categories *Lower Risk (near threatened)* and *Nationally Scarce* are listed. It is intended to update the status lists at regular intervals, using the revised IUCN criteria (IUCN 1994), so all suggestions for improvements to the lists would be welcome and should be submitted to me at JNCC, Monkstone House, City Road, Peterborough, PE1 1JY, or e-mail hodget_n@jncc.gov.uk.

The address of the JNCC web site is:

http://www.jncc.gov.uk/advisors/species/pstatus/index.htm.

Nick Hodgetts

LITERATURE PERTAINING TO BRITISH LICHENS - 24

Lichenologist **30**(2) was published on 6 March 1998, and **30**(3) on 11th June 1998.

Taxa prefixed by * are additions to the checklists of lichens and lichenicolous fungi for Britain and Ireland. Aside comments in square brackets are mine.

NB. Authors of articles on British and Irish lichens, especially those including records and ecological observations, are requested to send or lend me a copy so that it can be listed here. This is particularly important for articles in local journals and newsletters, and magazines.

I am grateful to Ishpi Blatchley for sending me relevant extracts from past issues of the *Orpington Field Club Annual Report* and a copy of '*Jubilee Park*'.

BREUSS, O 1996. Ein verfeinertes Gliederungskonzept für *Catapyrenium* (lichenisierte Ascomyceten, Verrucariaceae). *Ann. Naturhist. Mus. Wien* **98 B** Suppl.: 35–50. The genus *Catapyrenium* is divided into eight genera, three of which are represented in the British Isles. The British taxa are: *Catapyrenium*, with *C. cinereum*, *C. daedaleum* and *C. psoromoides*; *Involucopyrenium* Breuss (1998), with *I. waltheri*; *Placidium* A. Massal. (1855) [syn. *Dermatocarpella* Harada (1993)], with *P. boccanum* (Servít) Breuss (1988), *P. lachneum* (Ach.) de Lesd. (1932), *P. michelii* A. Massal. (1856), *P. pilosellum* (Breuss) Breuss (1988), *P. rufescens* (Ach.) A. Massal. (1856), and *P. squamulosum* (Ach.) Breuss (1988). A key to all known species is provided. [Unfortunately no key or table of diagnostic characters is given for the segregated genera. A division of *Catapyrenium* into subgenera rather than full genera may have been more appropriate.]

CORBET, G B (Ed.) 1993. *Jubilee Park: The natural history of a country park*. Bromley: Orpington Field Club. 72 pp. Includes (pp 41–42) a list of lichens from this country park in south-east Greater London [VC 16, West Kent) provided by Ishpi Blatchley. Lichens also mentioned in chapters on habitats (pp 11, 18–19).

GAINEY, P A 1997. Lichens (pp 18–36). In *Red Data Book for Cornwall and the Isles of Scilly* (A SPALDING, ed.), Camborne, Cornwall: Croceago Press. ISBN 1-901685-00-4. A list of Red Data Book, Near Threatened and Nationally Scarce lichens, together with short notes on each species.

GILBERT, O L 1998. Wildlife reports: Lichens. *British Wildlife* **9:** 398. Gives an update on records of some rare species since the publication of the Red Data Book. [NB: Oliver Gilbert has taken over from George Baron as lichen reporter for this magazine.]

GILBERT, O L & McCUTCHEON, D 1998. Lichen flora of Northumberland: supplement 1. *Naturalist* **123:** 15–18. Additions and corrections to OLG's county flora (*Lichenologist* **12:** 325–395, 1980): 36 species are added to the list, and two are removed, bringing the county total to 620. The current status of *Lobaria pulmonaria* in the county is outlined.

GILBERT, O L & SMITH, E C 1998. Lichens. In L KERSLAKE (ed.) 'Red Data Book for Northumberland.' *Trans. Nat. Hist. Soc. Northumbria* **58**(2): 273–288. An annotated list of rare and endangered species occurring in the county.

HALONEN, P, CLERC, P, GOWARD, T & WULFF, K 1998. Synopsis of the genus *Usnea* (lichenized ascomycetes) in British Columbia, Canada. *Bryologist* **101:** 36–60. Includes valuable descriptions, notes and illustrations to 23 species, a dozen of which also occur in the British Isles.

HEIÐMARSSON, S 1998. Species delimitation in four long-spored species of *Dermatocarpon* in the Nordic countries. *Ann. Bot. Fennici* **35:** 59–70. The species treated are *D. bachmannii*, *D. deminuens*, *D. meiophyllizum* and *D. rivulorum*. The scope of this paper overlaps with that by Alan Orange (*Lichenologist* **30:** 1–20, 1998), but treats the differences between the first two species in greater depth.

HERRERA-CAMPOS, M A, CLERC, P & NASH III, T H 1998. Pendulous species of *Usnea* from the temperate forests in Mexico. *Bryologist* **101:** 303–329. Includes a detailed, illustrated outline of morphological characters, and three species occurring also in the British Isles are treated.

PITT, J 1989–1997. Botany report 1988. *Orpington Field Club Annual Report* **29:** 24–26 (1989). Botany report 1990, *Ibid.* **31:** 31–33 (1991). Botany report 1991, *Ibid.* **32:** 11–13 (1992). Botany report 1992, *Ibid.* **33:** 13–16 (1993). Botany report 1993, *Ibid.* **34:** 15–19 (1994). Botany report 1995, *Ibid.* **36:** 17–22 (1996). Botany report 1996, *Ibid.* **37:** 20–24 (1997). Botany report 1997, *Ibid.* **38:** 16–20. Brief accounts of lichenological activities and discoveries by members of the field club, including some notable finds and observations on lichens in West Kent.

SEAWARD, M R D 1998. Time-space analysis of the British lichen flora, with particular reference to air quality surveys. *Folia Cryptog. Estonica* **32**: 85–96. Includes maps for British Isles of *Lecanora conizaeoides*, *Micarea nitschkeana*, *Parmelia elegantula*, *P. perlata*, *Parmeliopsis ambigua*, *Ramalina farinacea*, *Scoliciosporum chlorococcum*, *Usnea* spp. and *Xanthoria polycarpa*.

WETMORE, C M & KÄRNEFELT, E I 1998. The lobate and subfruticose species of *Caloplaca* in North and Central America. *Bryologist* **101:** 230–255. Five species that also occur in Britain are included. The anatomy of the thallus is shown to be an additional character for the separation of *C. granulosa* (cortex somewhat paraplectenchymatous; algal layer continuous) and *C. verruculifera* (cortex of irregular and anticlinally arranged hyphae with somewhat enlarged cells near the surface; algae in clumps and columns, with anticlinal hyphae between). The entry for *C. saxicola* ends with the comment "The *C. saxicola* group needs further study"!

Brian Coppins

NEW MEMBERS BETWEEN 23/3/98 AND 23/9/98

Mr N E A CARTER, Linacre College, Oxford University, OXFORD, Oxfordshire OX1 3TA

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NEW, RARE AND INTERESTING BRITISH LICHEN AND LICHENICOLOUS FUNGUS RECORDS

Contributions to this section are always welcome. Please submit entries to Chris Hitch, 14, Hawthorn Close, Knodishall, Saxmundham, Suffolk, IP17 1XW, in the form of species, habitat, locality, VC no, VC name [from 1997, nomenclature to follow that given in the Appendix, see *Bulletin* 79, which is based on the *Biological Records Centre Instructions for Recorders*, ITE, Monks Wood Experimental Station, Abbots Ripton, Huntingdon, PE17 2LS, 1974], Grid Reference (GR), altitude (alt.), where applicable, in metres (m), date, comments and recorder. An authority with date after species is only indicated when the record is new to the British Isles. *In the interest of accuracy, typescript is much appreciated. Please use only one side of the paper. Copy should reach the subeditor at least a fortnight before the deadline for the* Bulletin. Records of lichens listed in the *RDB* are particularly welcome, even from previously known localities.

Acrocordia cavata: on trunk of *Fraxinus* with *Bacidia phacodes* and *Gyalecta truncigena*, by path to Ashridge Farm, Cheddar, VC 6, North Somerset. GR 31/45-54-, alt. *c.*100 m. March 1997. New to England; third British record.

B J Coppins

Arthonia diploiciae Calatayud & Diederich (1995): on thalli of *Diploicia canescens* on septarian nodule on the south wall of derelict chapel in marshland, Minsmere NR, VC 25, East Suffolk, GR 62/47-65-, July 1998. New to the British Isles. Confirmed by B J Coppins. [Ascomata in groups, 0.1-0.2(-0.4) mm diameter, bursting through the cortex, and heavy "pruinose" initially. Ascospores 8-12(-14) x 3.5-4(-5) µm, 1-septate, hypothecium hyaline to dilute brown.]

C J B Hitch & P M Earland-Bennett

Bacidia delicata: abundantly fertile on vertical sides of grids of cast-iron drain covers, at edge of concrete runway, East Fortune Airfield, VC 82, East Lothian, GR 36/54-78-, alt. 35 m, August 1998.

B J Coppins, V J Giavarini & O L Gilbert

Bacidia egenula: on mortar on top of old roadside wall, with *Leptogium turgidum*, Trawscoed, VC 46, Cardiganshire, GR 22/67-72-, alt. 65 m, January 1997. Both new to Cardiganshire. Determined by B J Coppins.

S P Chambers

Biatora chrysantha (syn. *Lecidea gyrophorica*): over *Hypnum andoi* on trunk of *Quercus petraea*, Coed Cefncennarth South, GR 22/96-75-, alt. 340 m, March 1998. New to Radnorshire. Confirmed by A Orange.

S P Chambers

Byssoloma leucoblepharum: on the sheltered base of an ancient *Quercus petraea*, Red Shoot Wood, New Forest, VC 11, South Hampshire, GR 41/18-04-, alt. 70 m, April 1998. Determined by B J Coppins.

S P Chambers

Caloplaca marina: several totally unpigmented thalli growing amongst normal pigmented forms on retaining concrete blocks of north-east-facing river wall, Waldringfield, VC 25, East Suffolk, GR 62/28-44-, August 1998.

P M Earland-Bennett & C J B Hitch

Candelariella vitellina f. *flavovirella*; on asphalt of runway, East Fortune Airfield, VC 82, East Lothian, GR 36/55-78-, alt. 25 m, August 1998. New to Scotland.

B J Coppins, V J Giavarini & O L Gilbert

Cetraria pinastri: for details see under *Cladonia botrytes* - second entry.

A M & B J Coppins

Cladonia botrytes: on cut surface of stump of Scot's pine, in woodland above Drumore Loch, VC 89, East Perthshire, GR 37/16-60-, August 1985. Determined by P B Topham. This material, confirmed by B J Coppins, 1998, straddles the gap between the 1960s and 1990s when it was otherwise recorded and supports the similar southern record below.

P B Topham & C J B Hitch

: on tops of conifer stumps in open gladed areas, Kindrogan Wood, Enochdu, Strathardle, VC 89, East Perthshire, GR 37/05-62-, alt. 275 m, September 1998. Seen with one to four podetia on each of eleven cut stumps. One thallus of *Cetraria pinastri* also present on one of the stumps.

A M & B J Coppins

Cladonia cariosa: one of 13 species of *Cladonia* recorded from Swanholme Lakes Nature reserve (see under *C. sulphurina* for details). New to Lincolnshire. Determined by B J Coppins.

M R D Seaward

Cladonia sulphurina: in grassy lowland heath in light *Betula* woodland, Swanholme Lakes Nature Reserve (within the urban boundary of Lincoln), VC 53, South Lincolnshire, GR 43/94-68-, August 1998. New county record of a species very rare in England south of the Humber. Confirmed by B J Coppins.

M R D Seaward

Endococcus parietinus: abundantly fertile on thalli of *Xanthoria parietina* on stones of north wall of derelict chapel in marshland with *Ramalina lacera* (also corticolous on *Sambucus*), *R. canariensis* and *R. farinacea*, both saxicolous, Minsmere NR, VC 25, East Suffolk, GR 62/47-65-, July 1998.

P M Earland-Bennett & C J B Hitch

Fellhanera bouteillei: on small flint pebbles and dead *Sedum* stems on low tomb in old cemetery, Clacton-on-Sea, VC 19, North Essex, GR 62/18-16-, June 1994.

P M Earland-Bennett

Lassallia pustulata: on old living gorse at the base of a small cliff, where *L. pustulata* is large and abundant. Not overgrowing the gorse from the rock, Belstone Cleave, VC 4, North devon, GR 20/62-93-, July 1998.

B Benfield

Lasiosphaeriopsis salisburyi: on *Peltigera rufescens* on ridge in shale bing, Philipstoun Bing, 5 km east of Linlithgow, VC 84, West Lothian, GR 36/05-76-, alt. 80 m, March 1998.

B J Coppins

Lecania atrynoides: on sides of wooden posts in estuarine sands, Hedderwick sands, estuary of River Tyne, Belhaven Bay, Dunbar, VC 82, East Lothian, GR 36/64-79-, July 1998. Apparently the first report of this maritime, saxicolous species on lignum.

B J Coppins, V J Giaevarini & O L Gilbert

Lecanora epanora: locally abundant on south- and south-east-facing basalt crags, Binny Craig, 10 km south-east of Linlithgow, VC 84, West Lothian, GR 36/04-73-, alt. 190-200 m, March 1998. New to West Lothian.

B J Coppins

Lecanora mughicola: on decorticate pine branch, Charn a' Chanuic, Abernethy Forest, VC 96, East Inverness-shire, GR 38/03-12-, alt. 380 m, May 1976. Previously known only from another high altitude area of native pinewood in Rothiemurchus Forest.

B J Coppins & L Tibell

Lecanora subaurea: a patch *c.*5 x 3 cm on wood of old fence post, 75 cm from base, around rusting fencing staple and corroded galvanised sheep netting, directly south-facing, Gilfach, VC 43, Radnorshire, GR 22/96-71-, alt. 360 m, April 1998. First VC record. The nearest known locality is Cwmystwyth mine, 16 km due west of Gilfach.

S P Chambers

Leptogium intermedium: on mossy trunk of *Acer pseudoplatanus* by river, Annelshope, south side of Ettrick Water, VC 79, Selkirkshire, GR 36/29-16-, alt. 230 m, May 1998. New to the Scottish Borders. Apparently first British report from a tree.

B J Coppins

Leptogium tenuissimum: on coastal cliff-top soil, Constitution Hill, Aberystwyth, VC 46, Cardiganshire, GR 22/58-82-, alt. 40 m, September 1996. First VC record. Determined by P M Jorgensen. This species is now known on coastal soil from several sites in VC46 and was previously mistaken to be a terricolous 'morph' of *L. teretiusculum*.

S P Chambers

: on mounds of calcareous soil tipped near car parks, Gilfach, VC 43, Radnorshire, GR 22/95-71-, alt. 240 m, June 1997. New to Radnorshire. Determined by P M Jørgensen.

S P Chambers

Lithothelium phaeosporum: on bark of mature *Fraxinus* (seen on five trees), Milton Wood NNR, 5 km north of Blairgowrie, VC 89, East Perthshire, GR 37/16-51-, alt. *c.*160 m, January 1998. Second British record.

B J & A M Coppins

Micarea lithinella: on flint stones in path through conifer plantation, Alderbury Common Plantation, 5.5 km east-south-east of Salisbury, VC 8, South Wiltshire, GR 41/19-27-, alt. 80 m, April 1996. New to Wiltshire.

B J & A M Coppins

Micarea misella: on lignum (? conifer), Laughton Common, VC 54, North Lincolnshire, GR 43/86-98-, August 1998. New county record. Determined by B J Coppins.

M R D Seaward

Micarea sylvicola: on shaded metal chain work of large tomb in parkland churchyard, Euston, VC 26, West Suffolk, GR 52/90-78-, July 1997. Confirmed by B J Coppins and new to the county, although a close morph had been recorded for East Suffolk, under electricity pylon, in 1992.

C J B Hitch, P M Earland-Bennett & P W Lambley

Micarea ternaria: locally abundant on schistose stones on north-east facing, gently sloping bank of forest track, at edge of conifer plantation, near Dalreach, Enochdu, Strathardle, VC 89, East Perthshire, GR 37/06-62-, alt. *c.*300 m, September 1998.

B J Coppins

Moelleropsis humida: on crumbly soil, with *Vezdaea rheocarpa*, in disused railway cutting, Gilfach, VC 43, Radnorshire, GR 22/96-71-, alt. 250 m, February 1998. New to Radnorshire. Confirmed by A Orange.

S P Chambers

Normandina pulchella: directly on bark about two feet above ground level, of mature *Fraxinus*, in disused marl pit, possibly maintained as a small reserve, Waldringfield, VC 25, East Suffolk, GR 62/28-43-, April 1998.

P M Earland-Bennett & C J B Hitch

Pannaria rubiginosa: on an old leaning ash, Spreyton Wood, VC 4, North Devon, GR 20/71-96-, May 1998.

B Benfield

Parmelia caperata: on *Quercus*, Hartsholme Country Park, VC 53, South Lincolnshire, GR 43/94-69-, August 1998. On a single tree, within the urban boundary of Lincoln, supporting ten macrolichens including *P. revoluta, Evernia prunastri, Ramalina farinacea* and *Usnea subfloridana*.

M R D Seaward

Parmelia soredians: for details, see under *Strangospora pinicola*.

P M Earland-Bennett

Parmelia tiliacea: on horizontal trunk of ancient walnut in farm garden with 32 other epiphytes and three lichenicolous fungi, VC 25, East Suffolk, GR 62/23-60, July 1998. Confirmed by B J Coppins.

C J B Hitch & P M Earland-Bennett

Peltigera britannica: abundant on large, detached rocks below crag, Kindrogan Wood, Enochdu, Strathardle, VC 89, East Perthshire, GR 37/05-62-, alt. 290 m, September 1998. One thallus of blue-green morphotype seen, from which were growing small lobes of the green morphotype.

B J Coppins, A Taylor & D Watson

Peltigera lepidophora: on conglomerate rocks by River Ericht, Craighall Gorge, VC 89, East Perthshire, GR 37/1--4--, March 1998. A search for this species at this, its only known British locality (where it was last seen in 1976), in summer 1994 failed to find it. However, a re-visit to the same spot this year was successful, with five thalli being detected, and a report submitted to Scottish Natural Heritage.

A M & B J Coppins

Peltigera malacea: on sandy bank under Scot's pine, Abernethy Forest, VC 96, East Inverness-shire, GR 28/98-16-, February 1998. Confirmed by B J Coppins (specimen in E). Fourth modern British site, and the only confirmed modern record from an inland site.

S Street

Peltigera neckeri: abundant on the decaying surfaces of the old airfield, Smeaththarpe, VC 3, South Devon, GR 31/18-10-, July 1998.

: on old decaying surfaces of the old airfield, Winkleigh, VC 4, North Devon, GR 21/62-09-. New to the county. July 1998.

B Benfield

Pertusaria lactescens: See article by Brian Coppins in this Bulletin (page 20).

Placynthium tremniacum: on a calcareous mossy block in railway embankment under trees at edge of Afon Marteg, Gilfach, VC 43, Radnorshire, GR 22/95-71-, alt. 240 m, March 1998. First VC record. Confirmed by B J Coppins.

S P Chambers

Ramalina capitata: on five Yorkshire grit tombstones in churchyard, Baumber, VC 54, North Lincolnshire, GR 53/22-74-, June 1998. Found on four identical wheel cross stones (dated 1893, 1897, 1899 and 1910) 8 m from north-east corner of the Georgian brick church and on a further stone (dated 1809) 10 m to the south of the church. Although abundant on one stone, its continuing presence here and on the others is tenuous; lichen twitchers should desist from collecting this rare species! New to England, and probably to the British Isles since the provenances of two 19th century collections from Scotland are questionable: one from Portlethen, Kincardineshire (1860) is possible and the other from Beinn a'Bhuird, Aberdeenshire (1863) is doubtful. Determined by B J Coppins.

M R D Seaward

Ramalina polymorpha: on west-south-west-facing, basalt outcrop, by path between the lighthouse and the chapel, Bass Rock, VC 82, East Lothian, GR 36/60-87-, May 1998. All thalli stunted and less than 1.2 cm in length. This small population is very much under stress from effects arising from the recently rapidly expanded gannet population on the island.

B J Coppins

Stereocaulon leucophaeopsis: fertile, on boulders in shale bing, Philipstoun Bing, 5 km east of Linlithgow, VC 84, West Lothian, GR 36/05-76-, alt. 80 m, March 1998. Locally abundant at this locality, occurring with *S. pileatum* (also seen fertile), *S. nanodes* and *S. vesuvianum*.

B J Coppins

Strangospora pinicola: on urban roadside *Populus*, with *Parmelia soredians*, Leigh-on-Sea, VC 18, South Essex, GR 51/84-86-, March 1998. Both species new to Essex.

P M Earland-Bennett

Strigula taylorii: on *Ulmus* in relic pasture woodland on south side of River Ettrick, between Gamescleugh and Annelshope, Ettrick, VC 79, Selkirkshire, GR 36/28-15-, alt. 230 m, May 1998. New to Scottish Borders.

B J Coppins

Thelocarpon intermediellum: on folded vinyl tablecloth, dumped with rubbish on old disused airfield, Leiston, VC 25, East Suffolk, GR 62/42-63-, October 1997. Determined by B J Coppins. New to the county.

P M Earland-Bennett, C J B Hitch & A Henderson

Thelopsis isiaca Stizenb. (1895): on mortar of a dry sheltered north wall, growing with *Dirina massiliensis* f.*sorediata*, Chivelstone Ch, VC 3, South Devon, GR 20/78-38-, January 1998. New to the British Isles. Differs from *T. rubella* in the 1-septate ascospores and pale (not reddish-brownish) perithecia. Confirmed by A Orange.

B Benfield

Usnea glabrescens: with *Bryoria subcana* on windswept trunk of *Quercus petraea* in upland oakwood, Coed Cefncennarth South, VC 43, Radnorshire GR 22/96-75-, alt. 380 m, March 1998. New to Radnorshire. Confirmed by A Orange.

S P Chambers

Vezdaea cobria: on metal-polluted trackbed of disused railway, Gilfach, VC 43, Radnorshire, GR 22/95-71-, alt. 240 m, March 1998.

: over decaying bryophytes in crevice in a shale outcrop in upland *Quercus petraea* woodland, Coed Cefncennarth South, VC 43, Radnorshire, RE 22/96-75-, alt. 380 m, March 1998. First VC records.

S P Chambers

Xanthoria ulophyllodes: on horizontal sandstone base of chest tomb in churchyard, Falkenham, VC 25, East Suffolk, GR 62/29-39-, April 1998. New to Suffolk.

P M Earland-Bennett & C J B Hitch

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