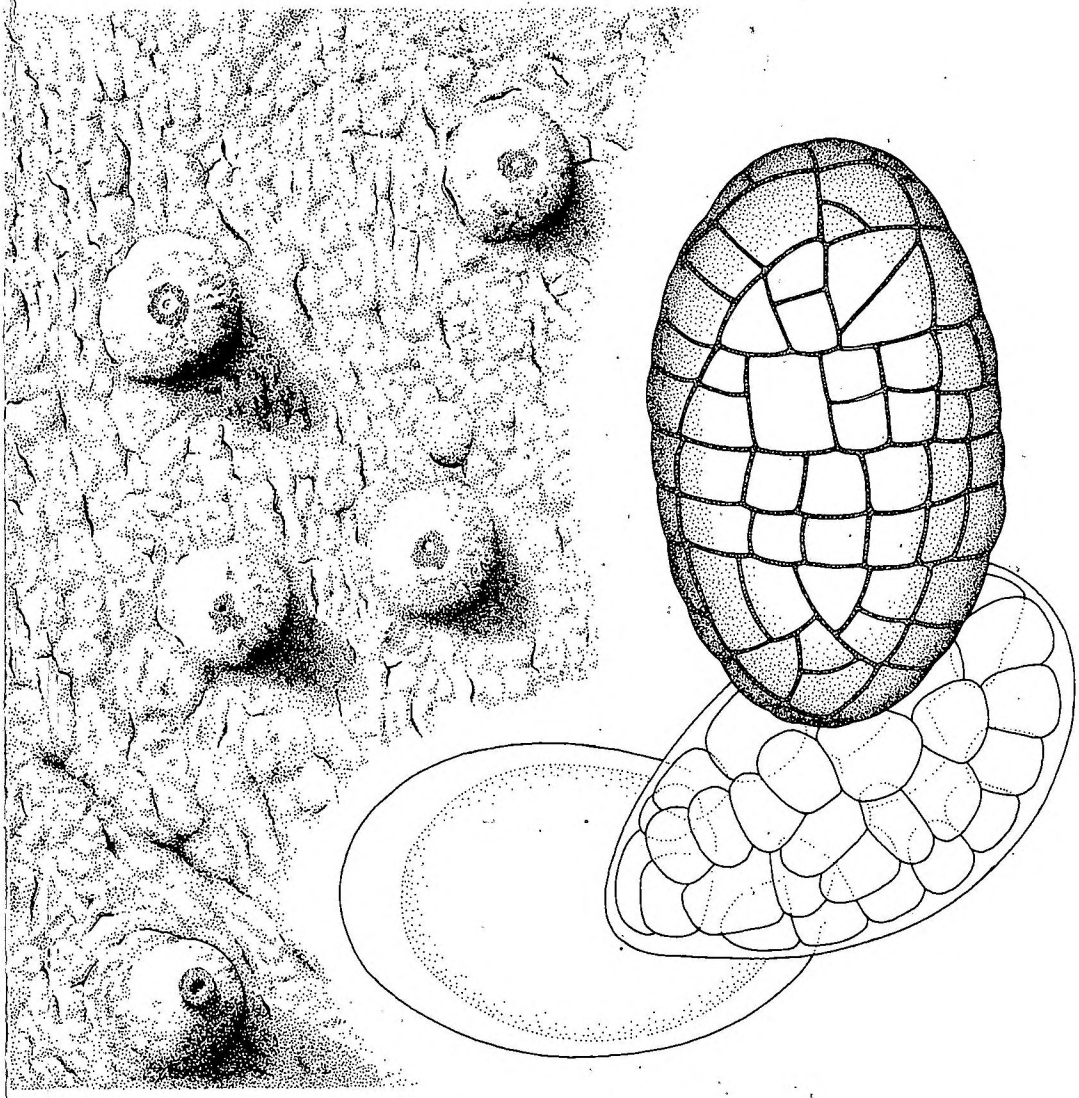
British Lichen Society Bulletin

Number 87 Winter 2000



Edited by P W Lambley

FORTHCOMING BLS MEETINGS

JERSEY
Leader Simon Davey 17-24 March 2001
KINGCOMBE (*OPEGRAPHA* WORKSHOP)
Leader Peter James 7-14 July 2001

2001 MEMBERSHIP AND SUBSCRIPTION RATES

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

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 2001 £25.00
.....three year rate for 2001-2003 £71.50
.....upgrade of a 2000 £25 subscription to five year rate for 2000-2004 £87.50

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 the 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 £290.00

Renewal membership subscriptions by sterling cheque or Eurocheque payable to *The British Lichen Society* and **drawn on a UK bank or on a bank with a UK branch or agent** should be sent, by **1 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 Mr S R Clayden, New Brunswick Museum, 277 Douglas Avenue, Saint John, New Brunswick, E2K 1E5, Canada.

Overseas members may pay by transfer to Girobank, Lyndon House, 62 Hagley Road, Birmingham, B16 8PE, UK, Sort Code 72 00 00 - account name 'British Lichen Society' - account number 24 161 4007 **or to** The National Westminster Bank plc, King's Parade Branch, 10 St Bene't Street, CAMBRIDGE, CB2 3PU, UK. Sort Code 60-04-23 - account name 'British Lichen Society' - account number 54489938.

Changes of address should be notified to the Assistant Treasurer at least six weeks in advance.

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 - Summer *Bulletin* March 26.

INTERNATIONAL WORKSHOP ON LICHEN MONITORING (LIMON)

In 1998 the Society held a workshop in Bangor with the aim of producing a lichen habitat management handbook. In 1999 the first lichen conservation meeting was held in Switzerland as part of the International Committee for the Conservation of Lichens (within IAL) and the IUCN. At both these meetings lichen monitoring was discussed and resulted in a suggestion to Council that the start of the new millennium would be an appropriate time to hold another workshop. Pat Wolseley took up the idea with her boundless energy, enthusiasm and interest in the subject. It was soon apparent that there was considerable interest and knowledge in using lichens for monitoring in other parts of the world, and that the idea of using such a workshop to exchange techniques and to standardise methodologies where appropriate was welcomed.

However, international workshops require funding, and one source was the NATO Advanced Research Workshops set up to enable collaboration between researchers from NATO member countries and partner countries from the former Soviet Union and Mediterranean. Professor Pier Luigi Nimis (Italy) agreed to be NATO country director and Dr Gregory Insarov (Russia) agreed to be partner country director and together with Pat at the Natural History Museum and support committed from the British Lichen Society and English Nature, they put in an application for funding the Lichen Monitoring workshop. This was no easy task as they were asked to submit with more partner countries involved and the grant was finally confirmed a few weeks before the workshop.

So from small acorns great trees grow and on the 16th August 65 participants from 22 countries gathered at the Field Studies Council Orielton Field Centre in Pembrokeshire for the workshop which was to last until the 22nd. The purpose of the workshop was to discuss and evaluate lichen monitoring with the aim of producing a Handbook to lichen monitoring which could be used by field workers, conservation bodies and environmental consultants.

The choice of Pembrokeshire proved to be an ideal one as lichen communities are both diverse and well known and where monitoring projects have been established in a range of habitats. Orielton is a large country house with outbuildings, including a stable block, which has been developed by the Field Studies Council, with Dr Robin Crump as its director, as a teaching resource with accommodation, laboratory space and lecturing facilities. Incidentally these buildings are scheduled as an SSSI for their bat interest. It is set in magnificent parkland and has an extremely homely atmosphere due to the efforts of Robin and Anne.

The background to the meeting was that lichens have been widely used as indicators of environmental change from air pollution to ecological continuity of old growth forests and more recently to climate change. The introduction of monitoring is taking place for a wide variety of reasons from assessing growth or loss of population for individual species plans to the monitoring of lichens in the extensive forests of the Pacific Northwest, where forest management has been altered to accommodate rare epiphytic lichens. Information gathered from monitoring projects has contributed to our understanding of changes in lichen communities and to assessing wider environmental, conservation and management issues, on both a local and wider scale. Maritime habitats are an important part of our natural heritage and support a large proportion of the lichen flora on Atlantic shores. Oil spills such as from the Sea Empress 1997 in Milford Haven have affected large areas of littoral shoreline communities and here base line surveillance has proved valuable in establishing monitoring and assessing baseline impacts. In other parts of the world where lichen-rich habitats are threatened, there is an urgent need for collecting and interpreting data at a very basic level. The workshop aimed to stimulate discussion and promote the establishment of appropriate monitoring techniques.

Over the five full days of the workshop 25 papers were read and a further 32 posters presented, all to a high standard. There were also 4 integral field trips to discuss techniques in practice and an optional all day excursion to Skomer Island at the end. It is therefore not possible to do justice to such a rich fare, especially when so many fascinating discussions also took place in the pubs in the evening or out in the field. This then can only be a personal view of a memorable week in Wales.

Thursday

The theme of the first day was monitoring in a variety of habitats. Christoph Scheidegger gave an excellent presentation on his work in using two survey techniques in establishing Red lists for epiphytic lichens in Switzerland. He had stratified a random sample of 826 sampling plots according to five regions, two vegetation formations and six vegetation belts. He had found that using such a method of using small long term observation plots often results in rare species being inadequately sampled for a Red list. They therefore carried out a second survey for rare species on 400 km ^{2}- mapping units. The scope of this survey was to find as many epiphytic species (especially potentially rare taxa) in the field. The combination of the two surveys allowed an estimation of the national population in terms of its distribution, its abundance as well as in the number of locations of rare and frequent species. This was followed by a paper by David Hill which helped to put the various types of monitoring into context. He explained that there were two types of monitoring: surveillance monitoring which involves collecting general data to detect unpredicted changes and targeted monitoring which involves measuring a signal from an identified

indicator of a defined functional aspect of an ecosystem or site. Both types were needed: targeted monitoring because its results can clearly be linked to management decisions and surveillance monitoring because one may miss important changes with targeted monitoring.

Tony Fletcher described his experiences in monitoring maritime lichens on Bardsey Island off the Welsh coast - concentrating on some of the practical problems encountered by lichenologists in severe weather conditions and hazardous terrain. He emphasised the importance of using simple photographic techniques whenever possible. His work had shown that the influence of accidents or otherwise unpredictable events on lichen communities should not be underestimated. A maritime perspective from other side of the world was provided by Peter Johnson from New Zealand. He had studied communities on both exposed and sheltered hard rock shores in North and South islands to show community patterns reflecting different degrees of maritime influence and moisture. The nearly freshwater surface layers in some of the Fjordland fjords demonstrated some affects to an extreme with some foliose lichens growing in situations which normally would be saline. Lichens could be important in monitoring the proposed export of freshwater from some of these areas.

Andree Aptroot described work in the Netherlands recording lichen communities in a country without natural rock outcrops, particularly monitoring lichen communities on the 55 megalithic monuments for red listed and accompanying lichens. This was appropriately followed by a visit to Bosherston Church where the hardier members ate their lunch in a Welsh monsoon, though as with much of the week, the skies then cleared allowing us to spend a very pleasant couple of hours looking at the variety of micro habitats in a Welsh churchyard. As Peter James explained churchyards provide wonderful opportunities for understanding the various factors that govern lichen ecology.

The afternoon session started with a presentation by Peter James on the factors creating diversity in churchyards. This was followed by Stefano Loppi describing a new scale for interpreting lichen biodiversity values in Tyrrhenian and alpine areas of Italy. Dr Gregory Insarov then highlighted the important role lichens could play in monitoring the impact of climate change, drawing on his work in Israel.

The evening poster session was led by William Purvis on the theme of air pollution and metal accumulation. Perhaps not surprisingly this was the area which attracted the most posters and interest. There were interesting developments in assessing pollutant levels such as the dose response effects demonstrated by Irina Mikhailova and many examples of heavy metal accumulation such as the work in Romania by Katalin Bartok and her collaborators, and Susanne Lambrecht. The posters demonstrated that lichens

are now widely used as indicators of atmospheric pollution from Bulgaria (Dobri Ivanov) to Thailand (Wanaruk Saipunkaew) and Vladivostok (Irina Skirina).

Friday

On Friday morning we set off for the Texaco refinery at Milford Haven, where the company had allowed us to use their excellent lecture room and presentation facilities. For many of us this was quite an experience being allowed into this huge complex, which a few weeks later achieved unsought fame in the petrol blockade.

The theme of the papers in the morning session was 'monitoring air quality and accumulation' and was ably introduced by Pier Luigi Nimis. He gave a stimulating paper on Biomonitoring with lichens - progress and problems. In this he provided a critical discussion of some of the main terminological and methodological problems relating to the use of biomonitors of 'air quality' emphasising the Italian experience and methods which can be used on a large scale. This was followed by an overview of the current state of research of the use of bioindicators for air quality monitoring in France from Dr Chantal van Haluwyn. Initially this work focused on SO_2, but had then moved on to monitor a wide variety of pollutants including NOx, marine aerosols, tetramethyl and tetraethyl lead. After coffee, Dr Linda Geiser described the data gathering in the forests of the Pacific north-west and demonstrated the power of the Web to disseminate a huge amount of information. Walter Erhardt then explained the German national guidelines for lichen mapping of air pollution trends and air quality.

The party then left the refinery and went to West Angle Bay (12/852032) to see some of the monitoring of rocky shore lichen communities undertaken by Robin Crump following the Sea Empress oil spill disaster in 1996. In the subsequent clean up high pressure hoses were used to remove the oil from the carboniferous limestone (and often stone as well), but a strip was left uncleaned to allow the monitoring of the lichen communities. Recolonisation has been very slow and non existent on bare rock and monitoring to date has shown that there is very little difference between the areas where the oil had been cleaned off by high pressure hoses and those areas where the oil had been left.

Refreshed we returned to the refinery for a further session which started with a contribution by Dr Damien Cuny on using lichen and bryophyte communities as a diagnostic tool for heavy metal contamination in northern France. In contrast Dr Susan Will-Wolf described a very different situation in the forests of the eastern United States where lichen communities are being used to monitor trends in climate and air quality. The practical difficulties of using lichens for monitoring atmospheric conditions in north-east Greece where suitable trees are difficult to find were highlighted by Dr Stergios Pintos. After tea Dr Kok van Herk described his work in the Netherlands

using lichens on roadside trees particularly in recent years to measure the impact of ammonia emissions from intensive livestock units. For those from Britain this was particularly relevant paper as there is considerable concern about the impact of increased levels of nitrogen compounds particularly on the more acidiphilous communities. Randolph Kricke presented a comparison of the different bioindication methods used in central Europe as a basis for a discussion on methodology and the possibility of using a unified method.

The evening poster session continued the theme of air pollution with a presentation on lichen monitoring in the Arctic by Margarita Magomedova, important where reindeer are still an important part of the economy and lichens a major component of plant cover.

Saturday

The morning began with a stimulating and humorous account by Ray Woods of what the contractor wants from biomonitoring. An Australian perspective was provided by Gintras Kantvilas explaining his work on using lichens and bryophytes to monitor silvicultural practices in Tasmanian eucalypt forests in regions where the flora is still not well known. The purpose is to test silvicultural alternatives and to develop indicators of sustainability. Sergey Kondratyuk described the *Lobarion* lichens in the ancient forests of the Carpathians. Steve Selva then described his work using *Caliciales* to assess forest continuity in north-eastern North America paralleling the work of Francis Rose in the UK in developing a scale of continuity.

In the late morning the party explored the grounds of Orielton and were able to a number of rare or local western species including *Usnea articulata* and *Lobaria pulmonaria*. Those of the party from eastern Europe were particularly struck by two vascular plants we take for granted, ivy (*Hedera helix*) and holly (*Ilex aquifolium*), which are so rare away from the oceanic west of Europe. It is these perspectives which give international events like this that added dimension.

Two further poster sessions covered a great range of countries and addressed a wide range of issues from studies on the diversity and distribution of lichens on Mount Ritigala, Sri Lanka by Chandrani Wijeyaratne and her co-workers to assessing the biodiversity of the lichen flora of juniper forests in Tajikistan (Imomnazar Kudratov), where there are considerable differences between the east and west of the country in rainfall and other climatic factors. A red data book on the Crimean region of the Ukraine was presented by Alexander Ye. Khodosotsev and a range of projects monitoring endangered species in Britain from high mountains (Alan Fryday) to coastal sites in Pembrokeshire, to long term monitoring of *Lobaria amplissima* by Oliver

Gilbert. Sandy Coppins demonstrated some of the problems and results of lichen monitoring projects.

Sunday

On the Sunday the whole party descended on Tyncanol Wood (22/092369) which is a National Nature Reserve in Cardiganshire where we were met by the Warden for the site and after a brief introduction began a circular walk through the wood. This is a wonderful wood of lichen-covered *Quercus petraea* with moss-covered boulders and glades, which lies partly on a valley floor at 300m but extends up the slopes of the Preseli hills to 780m, becoming increasingly exposed with stunted and wind pruned trees on the higher parts. It contains many rare and local species associated with ancient woodland in warm wet Atlantic conditions, and this was a new experience for many workshop participants from continental areas. Work by Pat Wolseley and Peter James has shown that changing land use with increasing application of artificial fertilisers has affected twig communities of the woodland boundaries and that lichens on twigs could be used to demonstrate these changes. This was an ideal site to test a key to lichens on twigs which Pat had produced following a survey of Pembrokeshire for Texaco. The whole party set about examining twigs using the key, which had been designed for school children and non-lichenologists to assess and monitor environmental conditions in Pembrokeshire using an interactive computerised key. The exercise was cut short by a very heavy downpour with thunder rumbling around the Preseli Hills, but we did have sufficient time to see its potential! Tyncanol is a very confusing wood and as the afternoon wore on and we continued uphill, Robin became increasingly concerned that we would not get back in time for the conference dinner. The wrath of the cooks was clearly in his mind. He need not have worried as the timing worked out very well. The effort of exploring the wood was rewarded by a five course dinner accompanied by wine which was a truly superb end to a wonderful day in a very special site.

Monday

The morning and first part of the afternoon was devoted to a series of papers on Biodiversity Action Plans, a curiously British phenomena. Brian Coppins gave an excellent account of the process explaining its origins in the Rio summit and how the British Government had taken on a commitment to target selected species which met certain criteria. He also explained that a species targeted approach had many disadvantages and that habitats still had to be the mainstay of lichen conservation. I gave a talk on the decline of the Breckland lichens and how monitoring had influenced subsequent management decisions. In contrast to species of dry ground, Sandy Coppins discussed the work she had done on monitoring the river jelly lichen *Collema dichotomum* which posed quite different problems. Pier Luigi Nimmis' comment about the British trying to freeze nature drew some lively debate. I think some of us secretly

have some sympathy with this view, but it highlights again the variety of experiences we have, even in the crowded confines of Europe.

The lunch break was at Stackpole Warren. It had been hoped to try out a transect method for estimating the populations of terricolous species, but heavy showers in the morning meant that there was a possibility of damaging the lichens, so whilst the group were able to enjoy the wonderful scenery and sunshine we were not able to do the transect. However, they were able to see some of the population of *Fulgensia fulgens* and *Toninia sediifolia* and also watch the local speciality, chough flying over.

Later on in the afternoon there was a discussion on the format that the monitoring handbook would take. In the end it was agreed that there would be two products a full manual as agreed with NATO and a smaller concise volume.

Tuesday

We set off in a coach in lowering clouds and rain (with an equally ominous forecast for the rest of the day) for Skomer. Alternatives were discussed if the boat was not running. But we need not have worried, Skomer was bathed in sunshine for the whole day, a truly marvellous experience, especially for those participants who have never looked at coastal sites. This rocky island is a National Nature Reserve and supports 248 species of lichen and a huge number of sea birds including colonies of puffins. This has influenced the lichens which include rare ornithocoprophilous species as well as *Teloschistes flavicans* and *Roccella* species. The lichen flora is described by Wolseley et al in the *Lichenologist* **28**. On the way back we made a diversion to drop people in Pembroke so that they could look at the impressive Norman castle or buy souvenirs to take home. We hadn't been near a shop for the entire week!

Looking back with was a really stimulating and interesting workshop. It succeeded in providing a forum for discussing a whole range of monitoring methods applied to many different situations. I think many of us have a far better understanding of the issues and problems which lichenologists around the world work to resolve. It was conducted in good humour and whilst the weather was not always on our side it allowed those from abroad to see a lovely part of the British Isles. The general consensus was that Orielton was an excellent venue helped by the wonderful hospitality of Robin and Anne Crump. Thanks must also go to all their staff, including the catering staff who produced food of a very high quality and to Vanessa who was always prepared to drive people to the pub! Thanks too to Texaco for their hospitality on Friday and to Bob Haycock and David Wheeler of the Countryside Commission for Wales who gave up their time to explain and show us their reserves.

Memories will be of the long evening discussions during the poster sessions. I hope I do not sound patronising when I say I admire the way that so many of the presenters were able to explain in English some quite difficult concepts. My poor ability with foreign languages makes me feel extremely inadequate at such times. I won't forget the wide ranging discussions in the pub in the evening explaining such important cultural differences as the way you have to go to the bar to get your drinks, none of the waiter culture in the British pub! Also our Treasurer and Assistant Treasurer huddled in corners, who had to deal with the complexities of international travel and finance as the British Lichen Society were the administrators of the grant. The rest of us are indebted to the organising committee for the huge amount of work they all put in, without which it would not have been such a success.

Peter Lambley
(Compiled with help from Pat Wolseley & Frank Dobson)

Fig 1. Robin Crump demonstrating monitoring techniques, Angle Bay.
Photo: Peter Lambley

Fig 2. Stackpole Bay: investigating terricolous communities.
Photo: Peter Lambley

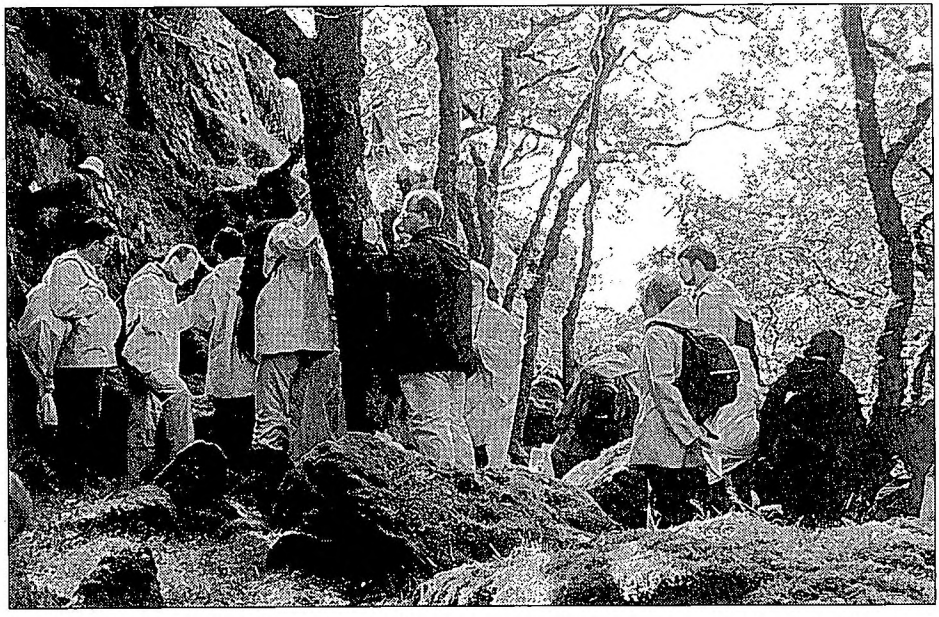


Fig 3. Tyncanol, an oceanic woodland, a new experience for many participants.
Photo: Peter Lambley

ANNUAL GENERAL MEETING
JANUARY 2001

************PLEASE NOTE CHANGE OF VENUE************

Nominations

Nominations for Officers for 2001 and four members of Council for the period 2001-2002 should be sent in writing to the Secretary, c/o Department of Botany, The Natural History Museum, Cromwell Road, London, SW7 5BD before 20 December 2000. No person may be nominated without their consent. Tom Chester, David Hawksworth, Barbara Hilton and Francis Rose retire from Council and are not eligible for re-election as Council members.

Council Meeting

Council will meet at 14.00 on Friday 5 January 2001 in the Council Room of the Royal Entomological Society, 41 Queen's Gate, London, SW7 5HR. Please let the Secretary have any items you wish Council to discuss by Friday 29 December 2000.

Lichenological Soiré

There will be an evening soiré on Friday 5 January at the Royal Entomological Society that will cost £12.00 per head including one glass of wine. Books and other lichenological paraphernalia will be available for sale by auction and there will be a topical slide show of members' slides - contributions are welcome, please contact the Secretary, Amanda Waterfield.

Those wishing to attend should complete the enclosed tear-off form and send a cheque for £12 (payable to the British Lichen Society) to the Secretary, British Lichen Society, c/o Department of Botany, Natural History Museum, Cromwell Road, London, SW7 5DB, before 20 December so that arrangements for catering can be made.

Annual General Meeting/Exhibitions/Lecture Meeting
PLEASE NOTE CHANGE OF VENUE

The Annual General Meeting will be held in the **Palaeo Demo Room of the Natural History Museum**, Cromwell Road, London, SW7 5BD, at 10.30 on **Saturday 6 January 2001**. Please bring along exhibits of lichenological interest for display.

PLEASE NOTE: MEMBERS WISHING TO DISPLAY ITEMS SHOULD DISCUSS THEIR SPECIFIC REQUIREMENTS WITH AMANDA WATERFIELD BEFORE 20 DECEMBER 2000.

Programme

Saturday 6 January

09.45 Reception and coffee
10.30 Annual General Meeting

AGENDA

1. Apologies for absence.
2. Minutes of the Annual General Meeting 8 January 2000.
3. Matter arising.
4. Officers to speak to their reports.
5. Field meetings 2000-2001.
6. Election of Officer.
   Four members of Council.
7. Any other business.
8. Date and place of next AGM.

11.30 Exhibition meeting.
12.00 Lunch (to be taken at local venues).

Afternoon Lecture Sessions - Frontiers in Lichenology

14.00-14.30	Paul Dyer "Sex and variation in lichens".
14.30-15.00	Pay Wolseley "The Pembrokeshire Twig Project".
15.00-15.30	Mark Seaward "The Chagos Archipelago".
15.30-16.00	AFTERNOON TEA
16.00-16.30	David Hawksworth - Update of the Lichen Flora.
17.00	CLOSE

AGM FIELD VISIT

West Brompton Cemetery
Meet outside West Brompton Tube Station (District Line; OS 51(TQ)/255.780) at 11.00 am on Sunday 7 January 2001. The site, 5.3 km from the centre of London, has extensive memorials. In addition, trees alongside the tube line had luxuriant recolonizing communities in 1988 which will be examined for changes since that time. No detailed report of the species on the memorials has been prepared. Packed lunch recommended. The visit is expected to end at about 14.00 hrs. *Leader*: David L Hawksworth (tel/fax 020 8203 4282; e-mail: myconova@btinternet.com).

THE ANNUAL GENERAL MEETING FOR 2000 WAS HELD AT 10.30 IN THE MEETING ROOM, LINNEAN SOCIETY, PICCADILLY, LONDON, W1V 0LQ.

Present: Dr P D Crittenden (President in the Chair) and 53 members.

1. **Apologies for absence.** Received from Sir David Smith, Albert Henderson, Francis Rose, Joy Gadsby, Ron Lewis Smith.
Oliver Gilbert gave an address on Brian Fox who had died on 29 March.

2. **Minutes of Annual General Meeting 9 January 1999.** These were signed as a correct record.

3. **Matters arising.** None.

4. **Officers' reports.**
The President gave an address. The Treasurer, Senior Editor, *Bulletin* Editor, Conservation Officer and Data Committee chairman, Education Committee chairman, Field Meeting Secretary, Mapping Recorder, Librarian and Secretary gave their reports published separately in the *Bulletin*.

Matters arising from the reports.
Dr Peter Crittenden was formally ratified as Senior Editor with Tony Braithwaite as his managing editor. Dr Dennis Brown was thanked for his many years of service.
Trevor Duke had resigned as Field Meetings Secretary and was thanked.
David Hawksworth was confirmed as Librarian, proposer Ray Woods, seconder Pat Wolseley.
The Society's role with regard to students was discussed and the Education Committee will take on board any suggestions from members.

5. **Meetings 1999-2000.**
The 2000 field meetings information was distributed and those not attending would get theirs in the post. Suggestions were made for meetings in Norfolk or the Cotswolds. Simon Davey offered to lead one in Jersey. Suggestions for field meetings abroad in Belgium and Italy were also offered.

6. **Election of Officers.**
President **(Council nomination: Dr A Fletcher)** elected nem. com.
Vice President **(Council nomination: Ms A Coppins)** proposed Dr O L Gilbert, seconded Dr B Hilton.

***Members of Council*:** Bryan Edwards, Ivan Pedley, Sheila Street and Jeff Bates were elected nem. com. Dr O L Gilbert, W R G Stevens, R I Lewis Smith and S P Chambers were retiring from the council and were thanked for their support.

Field Meetings Secretary: Ivan Pedley was elected. Proposed Trevor Duke, seconded Peter James.

7. **Any other business.**
Professor Mark Seaward proposed Teuvo Ahti as an Honorary Member, seconded by Professor David Hawksworth.

8. **Date and place of next AGM.** Saturday, 6 January 2001, The Linnean Society, Piccadilly, London, W1V 0LQ.

The meeting closed at 12.30.

Please note that subsequent to the meeting, the venue for the AGM in January 2001 was changed to The Natural History Museum.

TREASURER'S AND TRUSTEES' REPORT ON THE ACCOUNTS FOR THE PERIOD FROM 1/7/99 TO 30/6/00

This has been a very active year for the Society and, financially, a successful one. Looking at the income in the accounts, it will be seen that there is a drop in subscriptions of some £1,700. This year is the start of a new five year subscription period and a number of members who previously paid three or five year subscriptions had not yet renewed their subscriptions. Since the end of the financial year many of these members have paid and we are now again contacting the remainder.

Following the sad death of Prof. Brian Fox we received a bequest in his will of £1,000 plus his books. Some of the books were placed in our library, sales of the remainder raised £270.

Although it is now eight years since we published the *Flora*, sales of this book together with our other books and items continue to sell well and thereby assist in the work of the Society.

The profit sharing with the publishers of *The Lichenologist* has continued to help the Society in producing this journal. In the current year the publishers have agreed to pay for extra editorial assistance to help the journal maintain its standards and ensure that it is published promptly.

Printing included a reprinting of the checklist, the five colour churchyard sheets, additional copies of the membership list and binding the unbound volumes of the Society's copy of *The Lichenologist*.

The Society has purchased a computer for use with BioBase and also paid for the conversion of the main Bradford database. Other lichen databases are being converted and, together with much new information, are being incorporated into BioBase on the new computer.

The small projects grant and those to assist the overseas lichenologists to work in Great Britain are continuing to prove very useful and are providing valuable information that has, or will, appear in the Society's publications. The Society also paid £500 towards transcribing the notebooks of Francis Rose and £500 to the Scottish Wildlife Trust to assist in the purchase of an important lichen heath on Orkney.

The Society's very extensive libarary has now been transported from Bristol to Kew. The expense of this move of £890 has been offset by the sale of £498 of duplicate books from the stock held in the library.

As always, I must thank the assistant treasurers Stephen Clayden and Jeremy Gray. I must also thank Brian Green for his work in connection with stock and publication sales. Their clear and detailed accounts make the work of the Treasurer much easier. Thanks are also due to Douglas Oliver 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 2000.

D E W Oliver FCIB ATII

Notes to the Accounts

1. Manager's remuneration: No officer of the society received remuneration and none is due in the twelve months covered by these accounts.
2. Status; The Society is a registered Charity, number 228850.

BRITISH LICHEN SOCIETY

EXPENDITURE AND INCOME FOR THE YEAR 1/7/99 TO 30/6/2000

1998/9	EXPENDITURE			1998/9	INCOME		
	Printing and distributing				Subscriptions	21,808	
	The Lichenologist	13,788			Add 1/5 life membership	509	
137	Less profit sharing	(11,690)	2,098		Less refunds	(15)	
	Printing and distributing			13,749	Paid in advance	(10,276) (10,291)	12,026
	The Bulletin and Member list	2,828		6,709	Interest received		5,474
2,476	Less receipts	(315)	2513	–	Donations and bequests		1,270
1,634	Secretarial and committee expenses		2,341	4,141	Profit on sales of stock inc. *Flora*		3,737
607	Depreciation		949	–	Profit/Loss on exchange rate		–
970	Printing		1,340				
193	Bank charges		194				
775	A.G.M.		655	£24,599		Total	£22,507
997	Seminars, Field trips etc.		100				
–	Biobase		595	(£15,594)	Excess income over expenditure		(£7,932)
175	Accounting and audit		175				
156	Insurance		158				
266	Subscriptions paid		192				
619	Donations and grants paid		2,375				
–	Cost of moving library		890				
£9,005	Total		£14,575	£9,005		Total	£14,575

BALANCE SHEET AS AT 30/6/2000

	LIABILITIES				ASSETS		
3,640	Sundry creditors (inc. advance subs)		11,056	116,912	Cash at Banks		146,729
1,554	Life members		2,036	8,632	Stock and work in progress		8,012
3,307	Burnet/Wallace Memorial Fund		3,308	–	Capital equipment £3,799		
900	Grants and funds in hand		900	1,212	Less depreciation	(£2,165)	1,634
	General Fund at 30/6/99	131,143		13,788	Debtors		–
131,143	Plus surplus for 12 months	7,932	139,075				
£140,544		Total	£156,375	£140,544		Total	£156,375

Signed and agreed on behalf of the British Lichen Society

Independent examiner

President: Treasurer

Registered Charity No. 228850

FROM THE ASSISTANT TREASURER

In January 2001, as at the beginning of this year, Academic Press will send 'faith copies' of Part 1 of Volume 33 of *The Lichenologist* to all this year's Ordinary members.

Receipt of this does not, necessarily, mean that your subscription for 2001 has been paid! Subscriptions are due to be paid before receipt of the 'faith copy', by 1st of January each year.

Subscription Renewal notices are sent to all members of the Society with the Winter *Bulletin* as a matter of expediency. It is not practicable to enclose them only with the *Bulletin*s of those who have not paid for the following year. If you are unsure of your subscription status please check your 3 or 5 year receipt or contact me (preferably by e-mail). Alternatively, if you subscribe to *The Lichenologist* and have internet access you can follow the link from the index.htm page on the BLS website http://www.argonet.co.uk/users/jmgray to 'Subscription Status' which displays a table, extracted from the BLS membership database, showing your 'Subscription Number' which appears in the top left hand box of the Harcourt Brace address label of your copy of *The Lichenologist* (thus preserving general anonymity), and a code which indicates your subscription status.

A one-year £25-00 subscription, paid at the beginning of 2000, may be converted to a five-year 2000-2004 subscription by making a payment of £87-50. Full five-year subscriptions are not available for 2001-2005 and will not be available again before 2005 because of an anticipated subscription increase.

With the ever increasing cost of posting receipts for three- and five-year membership I propose acknowledging such payments by e-mail where possible but will post an official receipt when requested.

Please do not make subscription cheques payable to J M Gray, but to the British Lichen Society.

Please ensure that the BLS does not incur commission or bank charges when arranging payment of subscriptions. This year, once again, we have received several five-year subscriptions from which £11-00 has been deducted in charges. In future the Society will seek to recover these charges from the member.

I am aware that it would be more convenient if members were able to pay subscriptions direct to the Society by credit card but the cost of operating such an account, carrying as low a volume of transactions as the Society would generate, is not an economic proposition.

UK members wishing to pay their subscription by Standing Order, thus ensuring the receipt of the first part of each volume of *The Lichenologist* as soon as it is published in the New Year (and saving you the trouble of remembering to pay the subscription!), should ensure that the form is received by their bank well before the 1st January.

Members abroad employ several strategies for reducing commission charges on subscription payments. Some send sterling notes by registered post, some make payments by Eurocheque, some by Giro, some make transfers direct to the Society's bank account, which may be from their personal account or from a credit card. I give below full details of the Society's accounts at

Girobank, Lyndon House, 62 Hagley Road, BIRMINGHAM, B16 8PE, UK
Sort Code 72-00-00
a/c name 'British Lichen Society'
a/c number 24 161 4007.

and at

NatWest, King's Parade Branch, 10 Bene't Street, CAMBRIDGE, CB2 3PU, UK
Sort Code 60-04-23
a/c name 'British Lichen Society'
a/c number 54489938

Jeremy Gray

BLS LIBRARY AT KEW

On 10-11 September 1999 the entire British Lichen Society Library was transferred from the University of Bristol to the Royal Botanic Gardens, Kew. Since that time, the extensive reprint collection has been re-boxed, and some independent or incorporated material included in a single alphabetical sequence. These included the reprint collection of Otto V. Darbishire (1870-1934) and items covered in recent parts of the "Literature on air pollution and lichens" series in *The Lichenologist*.

A new catalogue of the books is also in preparation, and some duplicate books were sold at the Society's AGM in January 2000. The list of books available will be placed on the Society's web site during 2001.

The library is now housed on floor to ceiling shelving in a room on the ground floor of the Mycology Section building at Kew. The room is also occupied part-time by Professor Paul D Bridge, and loans and deposits are generally arranged through the Society's Librarian. Access is restricted, and arrangements to visit and requests for loans must be made through the Society's Librarian, Professor David L Hawksworth CBE (MycoNova, 114 Finchley Lane, Hendon, London, NW4 1DG, UK; tel/fax [+44] (0)20 8203 4282; e-mail: myconova@btinternet.com).

The Society is always pleased to receive books and reprints on any aspect of lichenology, and also unpublished documents such as survey reports and theses, for deposit. Items for the Library should be sent to the Librarian, and not addressed to the Royal Botanic Gardens.

The Society's Librarian is indebted to Dr Brian M Spooner (Head, Mycology Section) for his willingness to accommodate the Society's Library, and to him, Dr Peter Roberts, Dr Dennis Brown, and Patricia Taylor Hawksworth for their assistance with the physical transfer of the material.

CHURCHYARDS PROJECT ANNUAL REPORT

The following contributions from regional co-ordinators have been gratefully received:

Southwest England

Over the past year and during the coming year emphasis will be on filling up the squares in Cornwall and those unrecorded or inadequately recorded for North Devon. It is interesting to find that areas in the south west often have their own distinctive suites of species, reflecting coastal situations, atmosphere and rock types (e.g. granites, slates and serpentines).

Ann Allen

West Midlands and the Welsh Borders

Herefordshire (VC 36) continues to be surveyed by Joy Ricketts and Claire Leather and fifty churchyards to date have been visited with a good proportion of these having respectable totals. Colwall church in the shadow of the Malvern Hills has over ninety species.

A survey of Staffordshire (VC 39) is well under way and in excess of one hundred yards have been visited. The vice-county has not proved to be particularly rich and the better yards lie on the Carboniferous limestones to the north-east. Alstonfield with eighty species is outstanding and may be the first one hundred plus yard in the West Midlands given further visits. Plot in 1688 remarked that, "There is plenty (of stone) almost everywhere within little distance, which for the most part is gotten and worked easily, yet endures the weather so well that it improves in it to a complete hardness." Unfortunately most of this stone is acid sandstone and gritstone (Carboniferous and Namurian) which only supports a limited flora, and the effects of industrial pollution in large areas about the Potteries and of course to the north of Birmingham reduces this even further. A dramatic improvement in air quality over the last two decades has encouraged the first signs of a recolonisation of the region by species that have not grown in the Midlands for many years and this is very reassuring.

Shropshire (VC 40) has suddenly and unexpectedly become a place of pilgrimage, with the hint that a number of the yards may be very rich in species. A visit to the Craven Arms area by the Church yards sub-committee resulted in the discovery of two churchyards with over one hundred species in each and several others in the high seventies. The building stones of these churches reflects the geology of the area with base rich sandstones and limestones predominating and often those effected by Victorian rebuilds are 'softened' by the use of oolitic limestone as quoins and string

courses. This variety of substrate and the purity of the air favours a very rich and diverse flora. *Pertusaria lactescens* was frequently recorded, generally on horizontal sandstone surfaces together with *Rhizocarpon distinctum*, *Fuscidea praeruptorum* and many of the common species associated with this habitat. *Ochrolechia parella* was often abundant.

All the parish churches of Derbyshire (VC 57) have been visited at least once and again, the better yards are those built upon the limestones to the north of the county. It is anticipated that a fuller write up will be attempted at a later date. Cheshire has no active lichenologist looking at the churchyards and the county is very poorly surveyed with only sixteen churches having any records - a lamentable total. There must surely be one of our members interested in contributing to the Churchyards Project in this vice-county?

Ivan Pedley

Wales

A number of other churchyards have been visited since the last review. The spring field meeting to Dolgellau enabled six churches to be surveyed. The ruins of Cymer Abbey produced eighty one species during a very brief visit including an albino form of *Verrucaria macrostoma* f *macrostoma*. In the nearby church of St. Illtid two new species for Merionethshire (VC 48) *Sarcopyrenia gibba* and *Verrucaria macrostoma* f. *furfuracea* were recorded. A whale bone displayed over the porch entrance of the pretty church at Mallwyd was an interesting substrate for *Lecanora dispersa* and *Candelariella aurella*.

All the yards on the coastline between Barmouth and Harlech have been visited and, although often in inspirational positions overlooking the sea, they are not overwhelming in number of taxa or in rarities.

There is still much work to be done - particularly in the counties of Camarthenshire (VC 44), Cardiganshire (VC 46), and Flintshire (VC 51) but it is satisfying how much ground has been covered so far.

Ivan Pedley

Scotland

Sheila Street informs me that Scottish Natural Heritage is planning a project and producing leaflets to promote the on-site interpretation of the historic kirkyards of Aberdeenshire and wishes to include lichens. The county council is also planning to

use grass retardants (Scotts, Shortcut and/or Mazide 25) in their management of these sites and wishes to know whether the growth of lichens will be adversely affected. If any BLS members can offer any useful advice, please let me know. I can supply technical details of the two products on trial.

Northern England

A year ago in *Bulletin* **85**:19-22, Oliver Gilbert wrote about the conservation of *Calicium corynellum* on the tower at St Peter's Church, Bywell, Northumberland. Since its discovery in 1972, this has been the only site in Britain. The exciting news is that a second colony has now been found at the privately owned St John's, Whitfield in Allendale. Janet Simkin writes "This churchyard is on a hillside, damp and windswept, and the lichen is on three or four gravestones ... it is liberally sprinkled with black pinheads, in all stages of development ... perhaps as a result of the wet weather we had here ... English Nature and Plantlife are following progress with interest." Janet goes on to say that any members wishing to visit the site should contact her first so that they can be put in touch with the landowner.

Lowland England

At the end of last year's decennial report, I hinted that one of my priorities for this year and next was to look more intensively at my own patch. This I am beginning to do. There are 32 churchyards in the Brackley Rural Deanery and I intend to return to them again and again examining every accessible habitat in as much detail as time allows and subsequently analysing the resulting data. At the same time, I plan to contact the Rural Dean, the clergy, the churchyard managers and the architects to try to ensure that appropriate conservation policies are in place. Twenty years ago when these local yards were first visited, a total of 70 species was the bench mark of excellence. Only one site, a heavily restored Victorian church has since just failed to reach this figure and the average per site now exceeds 97. Altogether, 228 taxa have been recorded including such recent discoveries as *Gyalecta biformis* and *Parmelia soredians* (both new vice-county records) and the second British churchyard record of *Verrucaria elaeina* (see *Lichenologist* **32**:411-422).

I continue to receive mapping cards from elsewhere in the lowland triangle, most notably from Joy Ricketts who has now visited over 200 churchyards in Worcestershire, Humphrey Bowen and Mark Seaward who regularly sends lists, respectively, for Dorset and Lincolnshire, and from John Skinner in Essex. The Spring *ChyLIG* (Churchyard Lichen Interest Group) met in early May at Whitchurch on the Oxfordshire-Berkshire border and recorded over 90 species at what appeared on first glance to be a mediocre yard. We were joined by Cynthia Graham-Kerr, a local archaeologist (whose husband, a BLS member, died two years ago) and ate our

sandwiches on the lawn of her delightful thatched cottage at Upper Whitchurch. Previously, in October 1999, the group carried out a survey of Flitwick in Bedfordshire. Martin Butler who organised this event has since produced a detailed plan of the original yard and the adjacent extension yard and cemetery, photographed every species, and written a comprehensive report for the Beds Natural History Society Journal. By the time you read this, we will have made a second autumn visit to Flitwick and hopefully extended even further the list of 100 species. The Natural History Society of the nearby city of Milton Keynes has recently published an account of its wildlife entitled "More Than Concrete Cows". It includes an annotated list of 109 lichens, mainly derived from six former village churchyards now engulfed by the new town. The cows have yet to be surveyed.

The fourth Knuston Hall course **Exploring Churchyard Lichens** took place at the end of September and the participants included five BLS members. Despite a thunderstorm on the Saturday afternoon five new species were added to the local churchyard list including *Ramalina pollinaria*, *Lempholemma polyanthes* and a tiny thallus of *Parmelia caperata* which had appeared on a wooden seat since the last visit. The next course will be held on 5-7 October 2001 (see Field Meetings insert).

Footnote

The reason for the churchyard committee's pilgrimage to the Shropshire Hills area of the Herefordshire Diocese (see above) was that the second phase of an ambitious project **Caring for God's Acre** had just been launched. We had been invited to carry out surveys, to give advice on management for lichens and to provide educational project materials. Perhaps eventually we shall run a course for them. During our short visit twelve sites were surveyed and 175 taxa recorded, including an impressive sward of *Cladonia scabriuscula* over chippings on a kerbed grave at Stokesay, next to the castle. This is I believe the first churchyard record. On the Saturday afternoon, we met up with some of the locals at Clun churchyard and shared our enthusiasm for lichens with them. Our base was a delightful Georgian farmhouse at Hope Castle, where we could even look down on the neighbouring hillside church from the bedroom windows. The food was delicious and we had the pleasure of Oliver Gilbert's company. We are more than eager to return!

Tom Chester

PORTRAIT OF A COUNTY: 6. LINCOLNSHIRE VCS 53 & 54

Britain's second largest county has come in for some stick over the centuries. Even by those who have not seen it first-hand, it is portrayed as a sparsely populated, remote and flat expanse of nothingness somewhere to the east of England. As a boy growing up in the county the only people I met on my travels who knew anything about it had either been on military service at Cranwell or on holiday at Skegness, both of which resulted in decidedly biased views.

Visiting Lincolnshire in *c.*1134, Henry of Huntingdon described it thus: "this fennie country is passing rich and plenteous, yea, and beautiful to behold, watered with many rivers running down to it, garnished with a number of meers, both great and small, which abound in fish and fowl; and it is finely adorned with woods and islands". For a time in the Middle Ages, Lincolnshire, due to farming, was one of the most heavily populated areas of Britain, as testified by the density of past and present villages. However, the natural landscape persisted until the 18th century, when enclosure, tree felling and drainage changed all this; nevertheless, well into the late 18th century considerable fenland still existed with extensive tracts of water up to 4 metres deep. A visitor in about 1780 commented "No county has better churches and worse houses. The poorer sort of people wash their clothes with hog's dung, and burn dried cow's dung for want of better fuel; whence comes the Lincolnshire proverb: where the hogs shite soap and the cows shite fire". However, with agricultural improvement, as William Cobbett noted in his *Rural Rides* when he visited the county in 1830, "Everything taken together, here in Lincolnshire are more good things than man could have had the conscience to ask of God".

Despite two centuries of intense agricultural activity, Lincolnshire still has much to engage the natural historian, and indeed the lichenologist. It was the third county in England to form a Naturalists' Trust and as a consequence has been successful in preserving a large number of 'natural' habitats. However, since the famous Yorkshire botanist F A Lees resided in the county from 1877 to 1879, decline in certain habitats suitable for lichens has been considerable. Changing agricultural practices, and urban, industrial and leisure expansion over much of the Humber bank and North Sea coastline within the county and the spread of air pollution on prevailing winds from neighbouring counties to the west practising a policy of 'the solution to pollution is dilution' have all impacted on the lichen flora. Several species, such as *Lobaria pulmonaria*, *Parmelia exasperata*, *P. perlata*, *Ramalina calicaris*, *Solorina saccata* and certain *Usnea* species, known to have been present in Lees' time, have sadly disappeared from the county, as indeed they have over wide areas of England.

However, *Cetraria islandica* discovered by Lees at Linwood Warren is still there today. This is one of the few lowland heaths in England where this lichen persists; its disappearance highlights the loss of this important habitat from eastern counties, no

more so than in Lincolnshire, as may be deduced from a critical survey of place names (heaths and moors) on Ordnance Survey maps and observations of former residents and visitors. Abraham de la Pryme in 1695, for example, noted that the heaths in the north-west of the county reminded him of the sandy deserts of Egypt and Arabia; however, earlier descriptions of the Wolds, Heath and Cliff as being continuous rabbit warrens were transformed as Lincolnshire became one of the Britain's major farming regions. The further discovery of *C. islandica* over reasonably extensive areas of heathland 'rough' of a golf-course at Woodhall Spa in 1985 gives two outposts in the county for a lichen capable of raising the conservation status of any English lowland habitat.

The remarkable heathland at Risby Warren, a SSSI and the largest remaining area of cover-sand in Lincolnshire, is adjacent to Scunthorpe steelworks; its soils and vegetation, particularly the lichens, have been monitored by the writer since 1961. Although much of the once-extensive heathland hereabouts has been usurped by mining operations and industrial/urban sprawl, this site retained a modicum of representative heathland lichen species through these developments. More recently, the closure of some of the steelworks and the introduction of cleaner technology have been favourable to the recovery of the lichen flora and extensive areas of Risby are now covered by a reasonably high diversity of *Cladonia* species.

Grasslands over a variety of sandy and calcareous soils were formerly widespread throughout the county, but most of these have been destroyed by ploughing; characteristic species as *Cladonia subrangiformis* have very restricted distributions.

Stable dune-systems, formerly extensive along most of the north Lincolnshire coast, supported interesting terricolous lichen vegetation, but the dramatic floods of 1953 radically affected these; since then, many have succumbed to tourist development and the fragmentary habitats which remain support a very limited flora.

Lincolnshire today is one of the least wooded counties, and the extensive planting of conifers has not compensated for the disappearance of mature deciduous trees which in low or moderate levels of air pollution would support a diverse epiphytic lichen flora. Unlike many English counties, Lincolnshire is short of parkland as there are comparatively few stately homes and other major private estates which would have provided such trees. Mature trees have also disappeared at an alarming rate due to the removal of hedgerows, and Lincolnshire has been one of the worst affected counties in this respect; the disappearance of elm trees as a result of Dutch elm disease has exacerbated the problem. Chemical spraying and fertiliser broadcasting locally affect the lichen flora.

Since Lincolnshire possesses few rock outcrops, natural saxicolous lichen communities are rare. However, this is more than compensated for by the county's magnificent architectural heritage, and the various building materials employed at different periods provide a rich hunting ground for the lichenologist. In general, the county's buildings are constructed of brick or locally-quarried calcareous materials; where building materials have been imported, the stonework (mainly siliceous) supports its own characteristic lichen flora. Fine lichen assemblages are to be encountered in the older churchyards of the Wolds, and the author's recent discovery of *Ramalina capitata* in one of these is a measure of the lichenological potential of such habitats. To date, 286 of the county's *c.*676 Anglican churches with adjoining churchyards have been studied in the BLS's churchyard survey.

The fashioned wood of fences and many old houses, barns, etc provides excellent substrata for lignicolous lichens, especially where it has been impregnated with dust-borne fertilisers. Rather interestingly, chemically-treated fence rails extending over several hundred metres near Brigg provide a suitable substratum for *Acarospora anomala*, the latest addition to the British lichen flora. In the past, thatched roofs would also have supported a characteristic flora; sadly nearly all of these have disappeared from the county, and the few that remain have thatchwork held down by zinc wire netting which is not conducive to lichen establishment.

The air pollution load on Lincolnshire can be gauged from lichen distribution data: time - space analyses have shown that although much of the county is devoid of urban and industrial development, its lichen flora has been impoverished. Sulphur dioxide levels increased two- to three-fold during the period 1879 to 1979, but since then there have been significant reductions as witnessed by the re-establishment of numerous epiphytic lichens, such as *Ramalina farinacea* and *Evernia prunastri*, and to a lesser extent *Usnea subfloridana*. Qualitative changes in the air pollution burden are also being monitored in the county: acid rain, as manifested by the presence of such species as *Parmeliopsis ambigua*, is rarely demonstrated, but hypertrophication through the use of agrochemicals is widespread as shown by the increasing number of *Xanthoria polycarpa* records.

Lichenologically much remains to be done in Lincolnshire: there are ninety 10 km x 10 km squares to record from and currently the average number of post-1960 taxa recorded from each is less than 72, with a score of more than 100 taxa being recorded from only nine of the squares. In all, 311 lichen taxa have been recorded from the county over the past 150 years, of which 13 have not been seen since the 19th century. As Bill Bryson says in his *Notes from a Small Island*, "I like Lincoln because it is pretty and well preserved but mostly because it seems so agreeably remote". Lichenologists take note!

Mark R D Seaward

SMALL ECOLOGICAL PROJECT REPORTS

A further project has been completed by Vince Giavarini and Bryan Edwards, it is reported on below. Their application for a further grant to cover Stage 2 of this work has recently been approved. Members are reminded that short (half page) applications for grants outlining proposals (in the range £100-£400) should be sent to Oliver Gilbert, 42 Tom Lane, Sheffield, S10 3PB; they will be dealt with promptly.

SMALL ECOLOGICAL PROJECTS GRANT: WAYSIDE TREES IN DORSET

The long-term aim of this project is to study the lichens colonising the lowest 2m of 150 wayside trees in Dorset, concentrating on ash, sycamore and oak. Currently the county contains a reasonable number of such trees but the total resource is gradually being depleted due to death, lack of replacements, spread of ivy and road widening. The first phase of this survey involved 50 trees, the majority of which are in the E of the county. It has been completed, this report outlines the results. Each tree takes 30-40 minutes to survey, recording a species list of both lichens and bryophytes together with a note of their abundance and other ecological details of the cryptograms and phorophytes.

Trees were selected subjectively from roadsides, pastures, field boundaries, village greens and from beside tracks. Permission was always sought if they were on private property and this was very time consuming. One of the surprises of the survey turned out to be how difficult it was to locate suitable trees. Each was marked on a map and given a reference number so it could be resurveyed in the future.

Amongst the most notable lichens found during the first phase were *Anaptychia ciliaris* (20), *Caloplaca flavorubescens* (3), *Collema furfuraceum* (6), *Parmelia quercina* (2), *Physcia clementei* (12), *P. tribacioides* (8) and *Wadeana dendrographa* (1). Notable lichens not yet found but expected eventually, as they as know to occur on wayside trees in Dorset are *Bacidia incompta, Cryptolechia carneolutea, Parmelia acetabulum* and *Teloschistes flavicans*.

The common nitrophiles from the richest trees included *Buellia punctata, Candelaria concolor, Diploicia canescens, Physcia aipolia, Phaeophyscia orbicularis* and *Xanthoria parietina*. *Caloplaca obscurella* appears to be spreading and was picked up on 16 trees; all the porophytes supported it.

Results have been analysed so that each tree is given 2 values. One indicates a lichen/bryophyte biodiversity index which is calculated by listing species in the scale of 1-5 (1=rare, 2=occasional, 3=frequent, 4=abundant, 5=dominant). These numbers are summed to give the biodiversity index score. The richer trees currently surveyed score 70-90. A 'Rarity Index' then measures importance in relation to other trees in the survey. It quickly picks out those trees with a large number of common species that may give the impression of richness, from those of genuinely high conservation importance.

Eventually this index will be able to be applied to any important wayside trees in southern England. For this reason EN are particularly interested in the project. Money has been granted for a second phase of fifty trees. It will cover central and West Dorset.

Vince Giavarini and Bryan Edwards

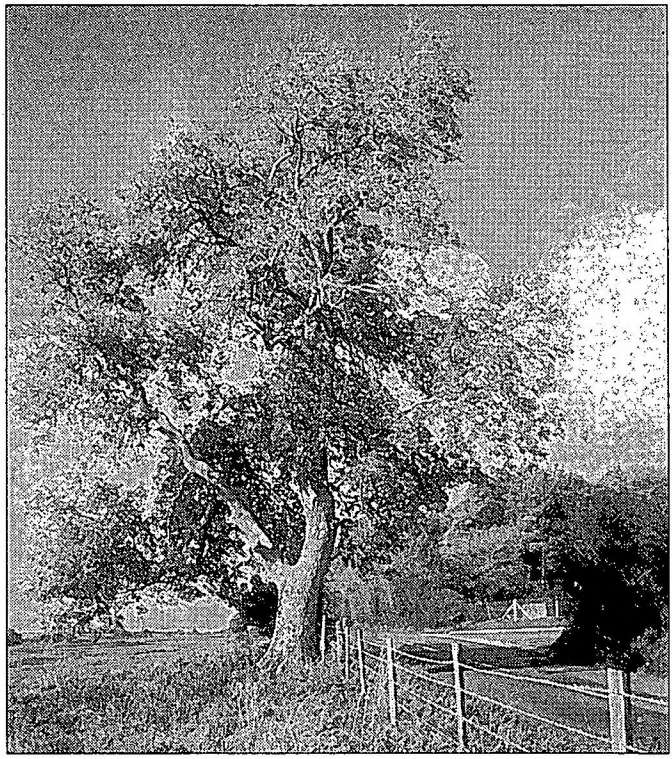


Fig 1. A wayside ash tree in Dorset that supports *Anaptychia ciliaris* and *Collema furfuraceum*.

IRELAND'S NORTHERNMOST LICHENS: A VISIT TO THE ISLAND OF INISHTRAHULL

I must admit to being a bit of an unreconstructed square-basher. There is something very satisfying about going where no lichenologist has gone before, and in Ireland there are so many 'uncharted' 10 km squares that such opportunities abound. Indeed, on frequent journeys across Ireland in pursuit of my geological and geomorphological research, I often spend two or three hours surveying in a 'virgin' square en route. Of course most of the lists compiled from these are made up largely of the 'bread-and-butter' species, but in the larger scheme of things such records are equally as valuable as the showy oceanic species or the tiny 'black spots'. Of course a 10 km square is a rather artificially defined area which is why islands, being self-contained, natural, entities, are among the most satisfying sites to survey if they are not too large. Being largely isolated from the effects of pollution or intensive agriculture they can often be quite interesting too. Many small islands lie off the coast of Ireland, though few have received any lichenological attention, of which Inishtrahull is perhaps one of the most fascinating. Not only does it represent the most northerly outpost of Ireland, lying almost 10 km to the north-east of Malin Head, but it is also composed of the oldest rock in Ireland, a pink and black syenitic gneiss some 1800 million years old.

Working in the Geology Department of the Ulster Museum has its perks. When the Belfast Science Centre, due to open in 2001, decided it needed a piece of Ireland's oldest rock, it automatically looked to us to collect it and was quite happy to foot the bill. Old though the rock may be Inishtrahull is otherwise rather dull geologically but, being where it is, is of wider interest. So a simple trip to collect a few rocks developing into a small expedition encompassing geologists, lichenologists (Howard Fox, assisted by Maria Cullen, and me, with my lichenologist's hat on), a botanist, a marine biologist, and an archaeologist.

Although covering only 46 ha, the island has a rather complex shape and significant relief rising to 49 m O.D. Hence we rather had our work cut out to do the island justice in the three hours or so we had there, though with a complete absence of trees or bushes on the island the range of habitats was more manageable. Many of the commoner species could be ticked off without further ado but samples of some, particularly of the more unusual taxa, were collected for identification/verification later; these have been lodged in the herbaria at the Ulster Museum, Belfast, and at the National Botanic Gardens at Glasnevin, Dublin. The lower parts of the shore proved unremarkable but rocky crags higher up supported luxurient growths of *Ramalina siliquosa* and *R. cuspidata*, with *R. subfarinacea* also locally common. They were accompanied by a fairly diverse 'grey zone' flora, with *Tephromela atra* and

Anaptychia runciniata particularly conspicuous, but also including examples of *Physcia tenella* ssp. *marina, Lecanora fugiens* and *Caloplaca ceracea*, the last of these quite distinct from adjacent *Caloplaca crenularia*. *Caloplaca verruculifera* seemed distincly scarce except on one sheltered crag little more than a metre from one of the houses, where it occurred in profusion with *Diploicia canescens* - it made me ponder on the possible causes of the nutrient enrichment here ...

Howard and I actually adopted quite different searching tragedies. While I attempted to sample all of the main habitats across the island, Howard chose instead to concentrate on the crags and rabbit-grazed machair of a relatively small area on the north side. Crumbly mortar on the walls of derelict houses (the island was inhabited until 1928) and the old lighthouse enclosure at the south-east end boosted the total with such staples as *Placynthium nigrum, Toninia aromatica, Diplotomma alboatrum* and *Collema tenax*, with *Catapyrenium rufescens* common in some of the crevices. Grazed turf and low rock outcrops at the south-eastern end of the island supported locally profuse *Sphaerophorus globosus* and various species of *Parmelia*, most conspicuously *P. perlata, P. crinita* and *P. caperata*. Of course I passed through the general area where Howard and Maria were working and was pleased to find that the rabbit-grazed turf supported an interesting flora including *Degelia ligulata, Nephroma laevigatum* and *Collema corniculatum*. But by concentrating on this area Howard and Maria added a few more surprises, including *Normandina pulchella, Peltigera lactucifolia, Heterodermia obscurata* and *Lobaria pulmonaria*, together with more common taxa such as *Cladonia foliacea, C. rangiformis, Peltigera membranacea* and *P. rufescens*.

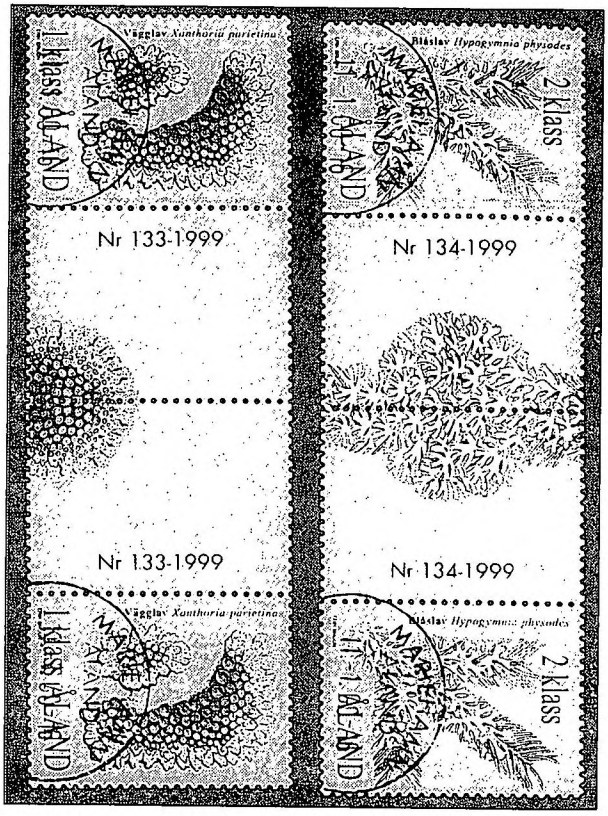
The tally so far is a reasonably respectable 66 species, though the figure should top 70 when we've worked through the last few bits. This compares well with Inishmurray, a sandstone island off the coast of Sligo which I visited a week later. Although significantly larger (130 ha) I recorded only about 70 species from there and the diverse turf flora seen on Inishtrahull seemed confined to occasional *Peltigera* and *Cladonia*. Inishtrahull might repay another, longer, visit but it is definitely not on the tourist trail. Almost 90 minutes by boat across an often rough channel, few people have visited it, or so I thought. A week later it was invaded by some 300 people attending an open-air anniversary Mass! So if you prefer your licheneering in peace and solitude, check you haven't picked the wrong day.

Mike Simms
Department of Geology
Ulster Museum
Botanic Gardens
Belfast BT9 5AB

NEW LICHEN STAMPS FROM THE ALAND ISLANDS

Last year the Post Office of the small island group of Aland, situated between Finland and Sweden, has issued two definitive stamps with lichens. The Aland Islands with 25,000 inhabitants are an autonomous part of Finland with Finnish currency but the language and culture is Swedish and as a part of autonomy they have the right to issue stamps since 1984. The stamps 133 and 134 of Aland are now among the still rather few having lichens as a main motive. The first class stamp depicts *Xanthoria parietina*, while the second class stamp has *Hypogymnia physodes*. More information including the possibilities to order are available from the net (www.posten.aland.fi). Information on lichens on stamps is available from a chapter in Stanley Gibbons thematic catalogue "Collect Fungi on Stamps" by J-P Greenewich (1st ed. 1991, 2nd enlarged ed. 1997) or from the article "Lichenophilatelie" by J P Gaveriaux & J C Boissiere in *Bull. Inform. Ass. Fr. Lichénologie* **20**(2) 1996.

Peter Scholz



LICHENS IN THE FALKLAND ISLANDS (ISLAS MALVINAS) - STANLEY TO STANLEY

I was fortunate to be able to visit the Falkland Islands in January and February 2000, with the help of a Shackleton Scholarship (commemorating the famous Antarctic explorer), and a grant from the Percy Sladen Memorial Fund through the help of the Linnean Society of London, to help in collecting lichens in these relatively unstudied regions. My wife Claire had an equivalent Scholarship, but to draw landscapes not lichen wallcharts.

The British Antarctic Survey staff have collected specimens as and when they had time waiting for transport from Stanley to South Georgia, or to stations south. There have been historical collections and observations made earlier too - Darwin stood on these shores, and J D Hooker noted great *Ramalinas* when the crews of 'Erebus' and 'Terror' made tidal observations in Berkeley Sound. These thoughts had a strong emotional effect when I too stood there, on a wholly empty shoreline in a country half the size of Wales but with a total population about the size of the Perthshire village of Stanley where I now live.

Hooker wrote that "nowhere in the world are Lichens more conspicuous than in the Falklands" (but he was very wrong here), and he also referred to rocks on the hills coated with species "almost invariably identical with those of Great Britain" (a suspect generalisation). It is only locally that the lichens grow large, mostly they are of 'normal' British size. High land to the west (Patagonia and Tierra del Fuego) means that the Falklands lie in a rain shadow though some 700 km out to sea, and during our visit the weather was cool but with a summer drought causing much anxiety in the scattered farming settlements, and it may be that this rather dry climate (together with the drying effects of persistant winds) restricts lichen growth somewhat.

The Falklands lichen flora is, to someone who has never ventured south of the Equator before, a bizarre mixture of the familiar and the exotic. *Parmelia saxatilis* in the Falklands looks like those growing in Perthshire, though maybe tending to be more hidden in rock overhangs, whilst *Thamnolia vermicularis* can be very vigorous indeed and colours rock outcrops white (see the grey splodge just left of centre above the Nissen hut in the unlabelled photograph of Port Howard in the first screen of WWW.falklands-malvinas.com/ hotissue.htm) - my specimen F192 comes from this colony. All my gatherings are UV- (var. *vermicularis*), as one would expect on geographical grounds. Shorelines are coloured with the familiar zonation of black, orange and grey lichens that we know so well, and the black seems indeed to be *Verrucaria maura* (but sometimes with the intriguing *V. dermoplaca* too, with radiating lobes and black fissures - entirely by chance I met it at its type locality). But the

orange *Caloplacas* include several different species, and the higher one goes the more diverse the saxicolous flora becomes. The great stone runs of East Falkland (Darwin's "streams of stones") are completely grey-coated (or brownish if affected by iron oxides) with mixtures of sterile *Ochrolechia* and *Pertusaria*, perplexing taxonomically, and often with extraordinary raised ridges between adjacent thalli of the same species. A very delicate *Sphaerophorus* (*S. tener*?) was common on the fierce quartzite hills around Stanley where much of the hand-to-hand fighting took place in the Falklands conflict - you tread over dead cartridge cases and hope that the map is right in saying that all mines have been cleared.

In a tributory of the Chartres River in West Falkland I saw *Hymenelia lacustris* in orange brown patches on rocks periodically immersed, but when I looked closer the apothecia were wrong and it may in fact be some relative of our plant. This site was overhung by rock outcrops bristling with *Usnea aurantiaco-atra* - a very robust and variable member of the subgenus *Neuropogon*. The only other species of this black and yellow subgenus that I have ever seen before is *U. sulphurea*, on a hill near Reyklahlið in Iceland, punctuated by black volcanic glass shards very recently erupted from some hot spot disturbingly close by.

Falkland has no limestone, but the low rainfall does not favour leached podsolic soils. Nevertheless there are heath communities over extensive areas, dominated by *Empetrum rubrum* ('Diddle Dee' to the locals), moving in arcs with the wind and developing dynamic zonations including abundant black-and-white *Hypogymnia*, and often quite yellowish *Coelocaulon aculeatum*.

Trees are limited to shelter belts and gardens, where they can be strong orange with dense *Xanthoria candelaria*. Deeper pink-red tints on open sea cliffs and dead twigs of the rare 'Native box' *Hebe elliptica*, indicate a *Belonia* or similar genus, with the algal cells seemingly densely surrounded by spiralling fungal hyphae. These grow in surprisingly open conditions and can colour whole cliff faces.

But the most wonderful location we visited was on Saunders Island in West Falkland, where one can live in a portacabin closely overlooking 3000+ penguins of four species. At dusk the gentoos stood in outline on old nesting sites against the red sky, and their squawking (for want of a more appropriate word) and smell left an enduring memory. Rockhopper colonies (they climb seemingly vertical cliffs to their rookeries) endure perhaps for thousands of years, and encourage local eutrophication. I found a most beautiful yellow *Acarospora* (*Xanthothallia*) on nearby rock outcrops and a rich orange papillose *Caloplaca* here near magellanic penguin burrows.

I collected some 300 specimens from 80 - 90 genera. Naming these collections will not, I fear, be quite so pleasurable as searching for them. Lichen lists from Tierra del Fuego and South Georgia, and those collected by Imshaug in the 1960s will be a starting point, but there have been many reassessments of the status of some species, and changes of names for others, meaning that it is not always clear what species "are on offer" when a plant is to be examined. In the UK we have a fairly good idea of the options to consider when looking at a (any) lichen, but in the Falklands the equivalent choices are not spelled out.

Imshaug's very large collection of over 3000 lichen specimens has lain somewhat neglected in Michigan State University (though sampled periodically by visiting lichenologists), but Alan Fryday has recently been appointed to overhaul Imshaug's material from the Falklands and South America. He has very kindly extracted for me all the Falkland records that he could see, and Ron Lewis Smith and colleagues have done the same for the British Antarctic Survey collections in Cambridge.

Soili Steenroos has agreed to name my *Cladonia* samples - in return she gets specimens to assist her in DNA analysis (question: how much have southern hemisphere populations diverged genetically from those of the same species in the north?), though the genus is not in fact ecologically important in the Falkland Islands. I will be extremely indebted to these and other lichenologists who have promised to help me with this task. The results will appear in suitable publications (with appropriate acknowledgements of course for help) when the time is ripe, but a preliminary paper will first be published in the Falklands conservation journal **The Warrah**. So look out for the close-up photograph of a *Caloplaca* (being named by Ulrik Søchting) on the cover of that issue, taken on the shore at Saunders Settlement, West Falkland.

D H Dalby

LICHEN BIODIVERSITY RECORDING IN THE NORTHERN ISLES

I have recently (June 2000) finished running a lichen identification training course in Stromness, for the Orkney Biodiversity Records Centre (based in Kirkwall). This seems an excellent time to draw the attention of the BLS to the activities of this Centre, and simultaneously to include its sister Biological Records Centre in Lerwick, Shetland.

Both Centres are occupied with assembling data from as many groups of plants and animals as possible, but (even more important perhaps at this stage) to make sure that the recording schemes and associated relational databases are working satisfactorily and can be extended as future data is passed to them. Neither can ever claim a complete cover, and compared with say ornithological recording, lichen data must always remain pretty paltry in amount, but in spite of this the information for both island groups is of quite a high standard of reliability as a result of those specialists who have travelled north.

Orkney lichenology started early (William Jackson Hooker and William Borrer had an eventful visit in 1808, especially to Eday, and William Lauder Lindsay looked at lots of megaliths in 1866). Subsequently a local doctor, C H Neville-Smith, and his wife Veronica collected extensively, and most of their specimens are now with the Orkney Field Club. Pauline Topham and several other members of the BLS have named plants in the O.F.C. herbarium. Numerous other specialists have either examined material sent to them and some have actually travelled to Orkney and undertaken field work themselves.

Shetland lichenology started later, but has received more detailed and generally more critical field attention, especially through the work by Humphrey Bowen (often on relatively inaccessible headlands, seemingly as far out as he could get), but most substantially through the efforts of Peter James when he was in Shetland carrying out air quality studies around the Sullom Voe oil terminal. I myself have extended these Shetland studies quite significantly.

On balance, Orkney now seems the more demanding of visits by lichenologists, as it is not so hard to find species new to the Islands. Barbara Benfield picked up a small cliff-top stone at Yesnaby with 7 lichen species on it, one was *Lecidella meiococca*, new to Orkney, and I myself found two more new species in the centre of Kirkwall on the very day in June this year when a summer tempest raged at over 80 mph through the town.

The Orkney and Shetland projects differ somewhat in detail (Orkney is supported by the Orkney Islands Council, Orkney Enterprise, Scottish Natural Heritage, the Royal Society for the Protection of Birds and the Orkney Field Club, whilst the Shetland equivalent is backed by the Shetland Islands Council, Shetland Enterprise, Scottish Natural Heritage and the Shetland Amenity Trust) - but both offer a good mix of local and national interests. Both are dedicated to establishing permanent Biological Records Centres, and they each intend that their databases will be available to the local authorities, residents and bona fide research workers.

Orkney does differ from Shetland in that it was selected as one of the four pilot areas in Scotland to develop a Local Biodiversity Action Plan - an approach now being very successfully followed elsewhere. Additionally the Orkney project follows and builds on the pioneer recording projects initiated by the Orkney Field Club under the guidance of Elaine Bullard. Orkney thus has an excellent starting point for the next generation of recording studies. It is especially pleasing to see the active parts being played by Orkney and Shetland Islands Councils.

I am Lichen Recorder for both Records Centres. The lichen data sets will build on the Paradox databases that I have developed for both island groups. I and other Recorders will vouch for the status of data submitted for inclusion in the Centres' own databases, but if a specialist submits data, then he or she will obviously retain reponsibility for the accuracy of his own records. This filtering through the Recorders is essential to prevent the systems being swamped by data of uncertain reliability. I have found for example that some University group records are not of the necessary quality, almost certainly because of the difficulty of combining the generalisations essential in teaching beginners with the more rigorous standards required by the Records Centres. Some strange records exist up north - e.g. that for *Usnea florida* from the bleak promontory of Sumburgh Head, the southernmost tip of mainland Shetland. Whilst this one can easily be rejected, in the absence of voucher material very many others cannot and should not. Some of Ursula Duncan's Fair Isle finds lack backup material, but Nick Riddiford recently visited the coast around the South Light on Fair Isle, and collected good specimens of *Anaptychia ciliaris* subsp. *mamillata*, which happily confirms her record from there (though usually right, she occasionally slipped a bit, and one likes to check ...).

What does all this mean for the BLS?

These two regional projects are not part of any BLS recording scheme but are complementary to them on a local basis, with some data exchange expected to be possible when the programs are fully functioning. I will be donating gratis all my Shetland and Orkney lichen records to the two Records Centres (my two databases include vastly more information than is held elsewhere in the BLS for the Northern Isles), with the intention that subsequent additions or corrections will be shared jointly. I will retain a backup data set, and we hope that the BLS, like other societies, will encourage its members to send data either to the appropriate centre, or to me personally. I know that very few members of the BLS have ever actually set foot in either Orkney or Shetland and that this will continue to be the case, so most members need not worry too much that they perhaps can't tell their Thules and Orcades from their Hebrides. If they can help however, then their contributions will be very welcome in the Islands. Addresses to send data to are:

Orkney Biodiversity Records Centre
Anchor House
10 Bridge Street
Kirkwall
Orkney KW15 1HR

Tel. 01856 875127

Shetland Biological Records Centre
Shetland Amenity Trust
22-24 North Road
Lerwick
Shetland ZE1 0NQ

Tel. 01595 694688

I am now on e-mail at kery@supanet.com.uk whilst addresses for the Records Centres are biodiversity@orkney.gov.uk and sbrc@zetnet.co.uk for Orkney and Shetland respectively.

D H Dalby

CONGRATULATIONS

The work of two distinguished lichenologists has recently been recognised by separate awards.

Dr Francis Rose was awarded the MBE in the Queen's birthday honours for services to field botany. This is a well deserved recognition for the huge amount of fieldwork he has done in extending our knowledge of the British and European floras but also a confirmation of the importance of field botany as a discipline in its own right.

Professor David Richardson at St Mary's University, Halifax, Nova Scotia, Canada has received the George Lawson Medal from the Canadian Botanical Association in recognition of a lifetime contribution by a botanist working in Canada with an exceptional research and academic career. Much of this has been achieved in the fields of lichenology and bryology.

Peter Lambley

FIRST LICHEN SPECIES IN NATURA 2000?

Promising collaboration and integration between all European countries started, not only politically and economically, but also in nature conservation, in the 1990s.

NATURA 2000 is a network of protected areas to be established within 12 years (1992-2004) as a coherent EU ecological network which will include:

- Special Protection Areas (SPAs) conserving the 182 bird species and sub-species listed in Annex I of the Birds Directive (79/409/EEC), and also migratory birds and

- Special Areas of Conservation (SACs) for protection of the 253 habitat types, 200 animal and 434 plant species listed originally under the Habitats Directive (92/43/EEC). Although its concern is primarily nature conservation, it states, that as an integral part of land use policy, it should be compatible with agriculture and other economic activities.

Which plant species are mentioned in the Habitats Directive? Perhaps it is not so surprising, that more than 90% are vascular plants, as these generally have a higher profile and many are outstanding flagship species. What really is surprising, is that the lower plants are represented by only mosses: 29 species (plus two Macaronesian) in Annex II of the Habitats (FFH) Directive. However, as already Gilbert (1977: 416) pointed out "Lichens cannot at present be permanently cultured, grown in botanic gardens, stored in seed banks or be artificially maintained for long periods. The only method of guaranteeing the perpetuation of communities or individual species is to safeguard their existence under natural conditions in the field." In addition, "Lichen-rich sites frequently show a high degree of correlation with areas of general ecological interest, though not necessarily with a rich phanerogamic flora." (ibidem).

Back in 1999, accessing countries to the European Union were given the opportunity to submit proposals to contribute as necessary to the Annexes of European Council Birds and Habitats Directive. Up to May 2000 five countries have done so: Slovenia, Poland, Hungary, Latvia and Slovakia. These lists of proposed species were evaluated in the Phare Topic Link on Nature Conservation. Unlike the first four of the countries, Slovakia decided to also submit lichens for inclusion in the annexes.

The proposal of the species was a difficult task to be accomplished within a very short time period. Out of 1483 lichens known from the territory of Slovakia, 491 (33.1%) are considered to be endangered, 100 species (6.7%) are presumed to have become extinct (Pišút et al., 1998).

The proposal includes seven species, occurring in different types of endangered habitats. *Lobaria pulmonaria* and *Ramalina fraxinea* are two of the 20 lichen species, protected in Slovakia by law since 1.7.1999 (Act of the NCSR 93/1999). All species are of prime conservation importance, none of them is listed in international conventions and instruments (Bern Convention, CITES Regulation, Bonn Convention).

The first five of them are distributed also in EU countries and the discussion on their adding to Annexes could be started right now, the case of the remaining two may be postponed until the accession of new member countries.

***Cladonia magyarica* Vain. ex Gyeln. (1930)**

In Slovakia considered to be vulnerable, in Hungary critically endangered (L Lõkös, in litt.), in Austria in danger of extinction (Türk & Hafellner,1999).

Geographical distribution: Endemic in the Pannonic region (Verseghy, 1994). In Slovakia occurring mainly in the Pannonic region (Danubian Lowland) and only very exceptionally in the adjacent Carpathians. In other parts of Europe: Hungary (Versegh 1994), Lower Austria (Türk & Hafellner, 1999). In other parts of the world: no evidence.

Reasons for decline or threats: Major changes in agricultural methods, large-scale monoculture, escalation of chemical usage.

***Gyalecta ulmi* (Sw.) Zahlbr. (1905)**

A very rare, critically endangered species decreasing throughout Europe (see European Red Lists and Red Books e. g. Cieśliński et al., 1992, Liška & Pišút, 1995, Türk & Hafellner, 1999, Wirth et al., 1996), but still locally frequent in some Mediterranean mountains (Nimis, 1993).

Geographical distribution: Slovakia (Western and Eastern Carpathians). In other parts of Europe: from Iceland to the Caucasus, from the northern Boreal zone to the Mediterranean mountains (Nimis, 1993, Purvis et al., 1992). In other parts of the world: North Africa (Algeria) (Liška & Pišüt, 1995).

Reasons for decline or threats: Aerial pollution, changes of microclimate conditions due to forest management practices and other disturbance of the habitats.

Lobaria pulmonaria (L.) Hoffm. (1796)

Europe-wide critically endangered to endangered and declining species (see e.g. Cieśliński et al., 1992, Liška & Pišút, 1995, Türk & Hafellner, 1999, Wirth et al., 1996).

Geographical distribution: Suboceanic-montane distribution in Europe (Nimis, 1993), in many parts of central Europe almost extinct due to air pollution. In the past widely distributed within the whole territory of Slovakia, at present known from only c.20-25 localities. On the majority of them occur only small and damaged individuals. In other parts of the world: Macaronesia, North Africa, Asia, North America (Nimis, 1993, Purvis et al., 1992).

Reasons for decline or threats: The whole genus *Lobaria,* is seriously threatened in many areas owing to the extreme sensitivity to SO_2 pollution (<25 $\mu g.\ m^{-3}$), acid rain and to changes in woodland management (e. g. short-rotation forestry). The threat in some European countries, where the species is still locally frequent, might be also the over-collecting for remedies, used in humane and veterinary medicine ("Stodal", "Naso-Heel S", "Bronchalis-Heel", "pvb Troubles broncho-pulmonaire", etc.).

Ramalina fraxinea (L.) Ach. (1810)

The species is considered to be endangered to critically endangered throughout Europe (see e. g. Cieśliński et al., 1992, Liška & Pišút, 1995, Türk & Hafellner, 1999, Wirth et al., 1996).

Geographical distribution: In the past widely distributed within the whole territory of Slovakia, nowadays rare and scattered, often occurring only in a dwarf form or damaged. In other parts of Europe: From southern Fennoscandia to the Mediterranean mountains (Nimis 1993, Purvis et al., 1992). Formerly widespread throughout the whole territory of Europe, nowadays becoming rare and almost extinct in large areas of Central Europe due to air pollution.

Reasons for decline or threats: Air pollution, logging of old solitary trees, trees in old alleys and destruction of old growth forests.

Solenopsora carpatica Pišút et Vězda 1970

In Slovakia considered to be a rare, in Italy to be a very rare taxon (Nimis 1993).

Geographical distribution: Slovakia (the Western Carpathians). In other parts of Europe: Central Alps, Italy (Nimis 1993). In other parts of the world: No evidence.

Reasons for decline or threats: Dramatic habitat change might cause population decline which can even disappear - cf. situation at locus classicus, where the species is missing now due to changed insolation (Guttová, 2000).

***Belonia herculina* (Rehm ex Lojka) Hazsl. (1884)**

A critically endangered, declining epiphytic species. In Poland and in the Ukraine considered to be rare where it is also very probably declining too (Cieśliński et al., 1992, Makarevich et al., 1982). In Roumania its present distribution and endangerment unknown (K Bartók, in litt.).

Ecology: The species grows only on trunks of old *Fagus sylvatica*, at c.700-1400 m., in well preserved, ancient beech and mixed forests with high air humidity. It is a distinctive old Carpathians-woodland indicator species, member of the highly endangered *Lobarion pulmonariae* Ochsner 1928 alliance, which contains many other endangered species (*Lobaria amplissima, L. pulmonaria, Menegazzia terebrata, Nephroma parile, Normandina pulchella,* etc.).

Geographical distribution: Endemic in the Carpathians (Slovakia, Poland, the Ukraine, Roumania).

Reasons for decline or threats: Air pollution, acid rain, forest management practices (e.g. clear-cuts, short-rotation forestry), changes in air humidity and any other disturbance of old growth beech and mixed forests.

***Lecanora chalcophila* Vezda (1978)**

Critically endangered with only a few small populations extant worldwide.

Ecology: On old metal-rich spoil heaps from copper mines, together with several other, highly specialised chalcophilous lichens (e. g. *Acarospora sinopica, Lecanora handelii, L. subaurea, L. gisleriana, Lecidea inops, Rhizocarpon oederi*), at c.500-750 m. Metallophyte species are in need of protection throughout Europe.

Geographical distribution: Slovakia: the Western Carpathians (Nízke Tatry Mts., incl. locus classicus and Slovenské rudohorie Mts.). There is no evidence about the species in other parts of the world.

Reasons for decline or threats: The major and lasting threat is the removal of the spoil heaps for the re-extraction of the copper. Because this can destroy the habitat in a very short time, the protection of this species and its habitats is a high priority!

Remark: The proposal of including this species and its habitats as a priority into the Annex II and IV of the Habitats Directive is strongly recommended also by Dr O W Purvis, Natural History Museum, London, UK (in litt.).

Acknowledgements

Dr O W Purvis (London) is thanked for information on the world distribution of *Lecanora chalcophila* and correcting the English of the manuscript, Dr L Lőkös (Budapest) is thanked for information on the endangerement of *Cladonia magyarica* in Hungary and the Grant Agency VEGA (projects no. 5048 and 6012) is thanked for support.

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PARMELIA ROBUSTA DEGEL. IN NORTH WALES

The large foliose lichen *Parmelia robusta* Degel. is a strongly oceanic species in Europe, of very southern distribution. In the British Isles, it was until 1994, only known in south west Ireland near Cork, on mossy rocks and on *Prunus spinosa*; in western Europe it is known from Brittany, the western Pyrenees and in north west Spain and Portugal (Purvis et al 1992). In 1994 S Chambers found it on mossy rocks in Cardigan, (Cwm Einion, vc 43) at 80m on one large more or less vertical, east facing rock face; five plants were seen, the largest 30x20 cm. Chambers reported that it was very precarious there and tending to peel off the rock.

It was therefore excellent news that *P. robusta* was found in a second site in Great Britain on the BLS excursion to Dolgellau in April 2000 (see also p ** this *Bulletin*), on north west facing mossy rocks at map reference SH622291 in Coed Crafnant in Merioneth (vc 48), in considerable quantity over some 50m; several patches were seen in sheltered hollows in this wood; several of them more than 1 sq m in area. It was associated with the following lichens:

Parmelia laevigata - locally abundant
P. taylorensis - locally abundant
P. saxatilis - locally abundant
P. perlata - frequent
P. endochlora - rare to very local
Sphaerophorus melanocarpus (fertile) - locally abundant
S. globosus - locally abundant

Other associates included:

Dicranum scottianum (c.fr.)
Adelanthus decipiens
Lepidozia cupressina
Scapania gracilis
Bazzania trilobata
Hymenophyllum tunbrigense
H. wilsonii

This is the most northerly site for *P. robusta* yet found in Europe, and the population is more extensive and robust than those I have seen on the Continent. The site is an SSSI, but does need further special protection as the nature reserve in Coed Crafnant does not at present include this part of the wood.

Coed Crafnant and the adjacent woodlands to the west (Coed Gerddi-Bluog etc) represent what seem to be the richest localities for woodland lichens in Wales. Other species present include *Degelia plumbea*, *Leptogium burgessii*, *Zamenhofia hibernica*, *Pannaria mediterranea*, all four *Lobaria* species and three *Sticta* species.

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Francis Rose

LECANORA PRUINOSA CHAUB. IN SOUTHERN ENGLAND

This lichen of calcareous rocks and stonework was considered as long extinct in *The Lichen Flora of Great Britain and Ireland* (Purvis et al, 1992). Since then many new records have been made for it in a number of vice-counties in southern England (7, 8, 9, 11, 12, 15, 32, 37 and 53) and duly recorded in the *Bulletin*. However, these records (all on churchyard stonework) make no logical pattern. This species has been sought for diligently in all the southern counties in particular. The pattern which has emerged is a strange one. It has a concentration of at least 20 churchyard sites in Hampshire, mostly in the centre of the county around Winchester and Romsey, but with scattered records elsewhere in this county. It cannot yet be found in Sussex or Surrey and so far there is only one Kent record at Charing. It is always found on Medieval buildings, or on very old chest tombs close to them.

I would like to suggest that this pattern needs more careful investigation. It may be related to the distribution of limestone building stone by the diocese of Winchester in particular and possibly also by Romsey Abbey. It is interestingly apparently absent from the Abbey walls at Netley, Beaulieu, and buildings of the former Priories at Christchurch and Porchester. Something here needs interpretation! I can supply details of the Hampshire records if anyone wishes to investigate this pattern further.

Francis Rose

FIELD MEETING AT DOLGELLAU
25-30 April 2000

"There is no place in the principality whence so many pleasing and interesting excursions may be made, and where nature bears such a rich, varied and grand an aspect as at Dolgellau."

Sir Richard Colt Hoare *c.*1795

For those members of the Society and their friends who assembled for the spring meeting at Dolgellau, it was remarkable that at least one part of our island has remained relatively unchanged since the eighteenth century. This lovely Welsh village is a delightful spot - at least during the hours of daylight! Its streets are designed for the pedestrian rather than the automobile and the grey massive stone of the houses gives them the appearance of being carved entire from that great mountain to the south - Cadair Idris.

The Royal Ship Hotel was more than welcoming, although those fortunate to have *"a room with a view"* of the churchyard found their neighbours a little more genteel and certainly less restive than those of members overlooking the eastern thoroughfare from the main square! Francis Kilvert in 1871 who, starting out at 5.30am to climb Cadair Idris, found the square complete with a circus menagerie and hearing the cages *"full of strange noises of different beasts"*, mischievously knocked on the doors *"eliciting divers roars, groans, howls, hoots and grunts"*. At times during the week when the hostelries turned out their trade on to the streets not only did the byways come to rival the Cloaca Maximus of Ancient Rome, but it sounded as though the menagerie had not gone away!

The weather for Wales was generous and for those staying for the whole week it became progressively more spring like with bedroom windows being thrown wide open.

The 'grand aspect' of the area is based on its underlying geology, which is mainly of Cambrium age and composed of dark greywakes, sandstones and siltstones, gently folded into the 'Harlech Dome', centred on the Rinogau, with slates and shales surrounding this anticline. The rocks are predominantly acid in character and dictate a calcifuge saxicolous lichen community. The corticolous flora is in places extraordinarily rich and underpinned our visit.

This flora is well documented with previous visits from a number of eminent lichenologists including A Pentecost (1987), A Friday (1992), A Orange (1996), F Rose and R G Woods (1970-1971, 1981, 1982) and again, F Rose (1986-1987, and 1999). There was an early BLS field meeting to the area in 1961, P W James (1961).

"The Lichen Flora of Gwynedd", A Pentecost (1987), is an invaluable reference as is the more recent "Catalog Cyfrifiad Cen Cymreig" by R G Woods and A Orange (1999).

Wednesday 26th April.
Ty n-y groes bach, SH 728233, Coed Berth Llwyd SH 722237, and a small area below on the National Trust estate of Dolmellynlyn.

Ty n-y groes bach (SH 728233)
The walls and trees were surveyed west of the A470 for a distance of 500 metres north of the hotel. This area set the seal on the week and provided a seminal experience with trees supporting a lichen flora of such quality as to be quite daunting. Eleven species of the genus *Parmelia* were recorded, including *P. crinita*, *P. horrescens* and *P. reddenda*. A small thallus of *Pannaria mediterranea* was an exciting find, provoking some discussion, and the commoner *P. conoplea* was abundant, its lovely steel grey lobes and paler margins being much admired. *Sticta fuliginosa, S. limbata,* and *S. sylvatica* were also frequently seen, as was *Menegazzia terebrata;* but it was to the *Lobarion* that all eyes were turned. Sheets of these impressive lichens cascaded down a number of ash trees (*Fraxinus excelsior*) and oaks (*Quercus* sp.) bordering the fields but with notably the best populations on mature sycamores (*Acer pseudoplantanus*). This ability of sycamore to support a rich and varied flora indicates that in some circumstances it may take the place of the elm (*Ulmus* spp.) in our landscape, if not perhaps in our hearts.

In a lay-by all four of the *Lobarion, Lobaria amplissima, L. pulmonaria, L. scrobiculata* and *L. virens* struggled for space on the bole of a fine oak with several species of *Sticta* and *Parmelia*. A car may be parked by the side, the window lowered, and rarities ticked off at leasure-almost a case of armchair lichenology!

Coed Berth Llwyd (SH 722237)
An open canopy woodland of ash and oak surrounding a ruined barn and above the previous site.

This was an area containing many of the species seen in the morning and again the spectacular sight of an oak supporting the full suit of the *Lobarion*. The appearance of *Parmelia taylorensis* indicated a change from the *Lobarion pulmonariae* below to a higher *Parmelietum laevigatae*, encouraged by increased rainfall, exposure and a characteristic reduction in the pH of the tree bark by leaching. The *Lobarion pulmonariae* of the previous site probably characterised the original lowland forest of England and includes the associated species *Sticta fuliginosa, S. limbata and S. sylvatica* together with *Leptogium cyanescens, L. lichenoides* and some members of the genus *Pannaria*. On this hillside the transition between the two lichen communities over such a relatively small increase in altitude indicates a considerable precipitation gradient, not unusual in these north-south valleys where rain shadow areas are common to the east of high ground.

A small parcel of woodland below the barn was visited in the late afternoon, but the survey was terminated by heavy rainfall, in spite of some protection provided by the unfurling of a veritable forest of umbrellas, some of very ancient vintage! Surprisingly, but no doubt due to the foul conditions and to the fact that they are very easily overlooked, the widespread, corticolous, crustose lichens of the *Lobarion, Pachyphiale carneola* and *Thelopsis rubella* were not found. However, in spite of this disappointment the lichen flora was very rich and the area would reward another visit in the future.

Thursday 27th April.
The Arto valley - Coed Gerddi Bluog SH 619296 and Cwm Bycan SH 646314.

Coed Gerddi Bluog (SH 619296)
In summer this enchanting valley is filled with the holidaymaker retreating from the frenetic excesses of the 'Costa Barmouth', and parking can be a problem. During our visit all was peace with little noise but the call of the migrant birds to delight us. Pied flycatchers (*Ficedula hypoleucas*), redstarts (*Phoenicurus phoenicurus*) and willow warblers (*Phyloscopus Trochilus*) and the first cuckoo (*Cuculus canorus*) vied for our attention and for many in the party the area by the river was rich enough to while away the morning. It produced a haul of notable species including *Micaria bauschiana, M. botryoides, M. coppinsii* and *M. stipitata*. *Micaria synotheoides* was found by Steve Chambers on an oak, only the second record for Wales - and the previous finder? Peter James, some forty years ago and a little further up the valley. Had he been with us Peter would have been delighted with this 'pre birthday' offering from the Arto.

The newly recognised *Rhizocarpon oceanicum* (*sensu* Friday) was discovered - again by Steve, on a sandstone boulder breaking through the turf of the river bank, and *Lecanora coriensis*, an apple green '*Lepraria* look a like' was abundant in crevices and particularly where suitable underhangs had been created by road widening. *Phyllopsora rosei* formed large patches on trees by the river but was rejected by the photographers, as it was not fertile - what exacting standards they set! Standards to be more than fulfilled on the following day in Coed Crafnant.

A group tired of the babble of the river and perhaps that of their colleagues extended their survey westwards into the woodlands of ash and oak on the slopes of the valley. None of this party who entered this timeless world of contorted groves with their great billows of tumbling bryophytes will forget its extraordinary charm. Coed Gerddi Bluog - even the name has a magical quality - is filled with rarities, its open humid canopy again favouring a *Lobarion* community. The grazing pressure on the wood was obvious, with feral goats (two were seen) contributing to the husbandry.

Some regeneration will be needed in the future but for the present the trees support *Lobaria pulmonaria, L. scrobiculata* and *L. virens* together with *Sticta fuliginosa, S. limbata* and *S. sylvatica*. Four species of *Usnea* were also recorded. The saxicolous community was also notable and included *Sphaerophorous melanocarpus* and numerous members of the genus *Pertusaria*.

A stream cascading down to the Atro had boulders covered with *Dermatocarpon luridum* and also notable liverworts - but to a more catholic naturalist in this paradise, the calls of the flycatchers and wood warblers were a continuous delight.

Cwm Bychan (SH 646314)

The area to the east of Llyn cwm Bychan was visited in the afternoon. The discipline of recording was relaxed and consequently the list does not do justice to this important area. Two of the party, dazed by the bewildering largesse lower down the valley, found solace in a dry stone wall slanting up from the car park and bordering the path to the 'Roman Steps', a medieval trackway over the shoulder of Rhinog Fawr. A familiar suite of lichens similar to that found on the Pennine sandstones was present and for once the lichenologist was in control rather than the lichens! *Candelariella vitellina f. vitellina, Lecanora intricata* and *L. sulphurea, Parmelia glabratula subsp. fuliginosa, P. saxatilis, Porpidia tuberculosa* and *Protoparmelia badia* were common.

Higher up in the wood, *Parmelia sinuosa* was pointed out by Ray Woods and *Menegazzia terebrata* was again seen (on oaks) with *Parmelia laevigata* and *Ochrolechia tartarea*, and (on rocks) *Parmelia omphalodes* - all strongly calcifuge species of leached, high rainfall upland woodland. *Pertusaria ophthalmiza*, the third

Welsh record, was abundantly coating the base of an oak on the upper edge of the wood. On a large boulder in the car park *Parmelia mougeotii* was found as several small thalli, looking very much as it does in the midlands where it is colonising the granite and slate of churchyard monuments.

Friday 28th April.

Grogwynion SN 697717, Lisburn Mine SN 728723, Cadair Idris SH 715124, Arto Valley, Coed Crafnant SH 618288.

A day of divided loyalties as the group separated to pursue individual interests

Two were attracted to the shingle beds on the **River Grogwynion, SN 697717**, an acid, lead polluted water-course to the south. The gravels were an extraordinary habitat for metalophytes with several interesting *Stereocaulons* being recorded including *S. condensatum* and *S. dactylophyllum var. dactylophyllum* and also the only *Vezdaea* found during the meeting, *V. cobria*. It also produced the first vice–county record for *Cladonia strepsilis*.

In the afternoon a lead mine at **Lisburn, SN728723**, was visited. The remaining masonry was made imposing by *Acarospora sinopica* and *Lecanora epanora* painting a strikingly beautiful collage of colour.

Cwm Cau (SH 715124)

One intrepid group, satiated by the corticolous bounty of the previous two days took on the mighty Cadair Idris - or rather the steep but easy pathway up to Llyn Cau, which nestles in a fine glacial cwm on the southern flanks of the mountain. As it turned out, the lower woods produced many of the species seen on the previous days but with a few additions. *Caloplaca crenulatella* was found on its preferred substrate, old concrete and mortar, on a path to a wooden hut, and *Porpidia soredizodes* on the sandstone boulders of a wall below.

Llyn Cau was of course, a delight, with all the 'atmosphere' that these high glacial lakes seem to have in abundance. Its water was crystal clear with aquatic vegetation eerily assending from the green depths and shoreweed *Littorella uniflora* growing at the margins. The lichen flora at the edge of the lake was disappointing although *Placopsis lambii* was common on the boulders above the outflow - similar in appearance to the more robust *P. gelida,* but lacking cephalodia and indicating the iron rich nature of these rocks.

A number of people cicumnavigated the lake, keen to investigate the basic mudstones which are exposed on the headwall of the cwm and which form one of the southern outliers of the high altitude arctic alpine habitats of wales. For once the rewards were not proportional to the risks and the geology proved to be a poor substrate for lichens - the rock being too friable for colonisation. *Toninia thiopsora* was found on the east facing vertical face of a boulder on the north side of the lake but as time was pressing a more intensive search was not carried out. The group was lashed with rain during the descent and even though 95 species were recorded during the day, spirits were a little dampened by the time that the car park was reached.

They were even more cast down when the main party returned to the hotel that evening from **Coed Crafnant, SH618288**, with eyes sparkling and exibiting obvious signs of euphoria - the cause? *Parmelia robusta* had been found, growing in only its second locality in Great Britain!

This species had been a wonderful sight, on north west facing mossy rocks growing with the two filmy ferns *Hymenophyllum wilsonii* and *H. tunbrigense*, and even though the size seemed to 'increase in the telling', it had been of considerable proportions. A number of thalli were measured and formed 'cartwheels' a metre or so in diameter on the rock faces. Also found on the rocks outcroping in the wood was *Parmelia endochlora* which in less august company than *P. robusta* would have been the star of the stage. Notable corticolous species included *Sphaerophorous melanocarpus*, with abundant black fruits on arched stalks looking like 'strange eyes' to one observer, *Degelia plumbea*, now very rare anywhere south of the Scottish highlands, *Leptogium burgessii*, in one of its very few Welsh sites, *Zamenhofia hibernica* and *Phyllopsora rosii*, with such an abundant display of apothecia that, at last, our exacting photographers were content.

The importance of Coed Crafnant is reflected in the number of taxa recorded during the visit - 158, and with 183 species found since 1971 (F Rose pers. comm.) - this total itself surely an underestimate - then this must be the premier woodland site of Wales.

No one that night asked the 'river shinglers' or the mountaineers how their day had gone!

As it happened no pique was caused, because the evening was to be dominated by an extraordinary birthday party, in absentia, for Peter James. Wine, the very best of company, a delicious repast - which at times threatened to become communal, and a considerable display of ribald merriment from some, were the order of the evening. Our very best of wishes, etc, were sent, somewhat hesitantly, to Peter via that scourge of the modern age, the mobile phone, and a sumptuous gateau, provided by the ever-

thoughtful Mary Hickmot, was consumed with relish. As a final curtain on this lovely evening, encouraged by a rather severe maître d'hôtel, the blushing waitresses returned, who, having received a torrent of confused orders and maltreatment during the meal, wished to return our tip as it was thought to be too generous for the service provided! This was in truth a very discerning hotel.

Saturday 29th April
The Nant Gwynant Pass-Hafod y Llan, SH 6351.

A morning of fine drizzle and mountain mist hanging in sectral wraiths in the pine forests bordering our road to Eryi and that mountain of Y Wyddfa-Snowdon. As if to emphasise the surreal nature of the scene a driver leisurely overtook our convoy on double white lines, taking several blind bends to complete the manoeuvre and what seemed like hours of borrowed time to do so. A coffin was strapped precariously on to the roof rack! The gods, seeing that he was prepared for the worst, were prepared to bide their time and averted their eyes - he was spared!

Hafod y Llan and the woodlands below the Watkin path to the summit of Snowdon lie on the floristically important 'Bedded Pyroclastic Deposits'; base rich rocks which higher on the mountain support a rare arctic-alpine flora. For those who expected a similar abundance of rare lichens which had characterised the past few days there was initially some disappointment - the memory of Coed Crafnant was still with them. In hindsight, always a valuable commodity, this proved to be a fine area and although no species of *Lobaria* were recorded (the richest site for these being just to the north) the genus *Sticta* was well represented with *S. canariensis, S. limbata* and *S. sylvatica. Leproloma membranaceum* and *L.vouauxii,* which can be difficult to separate in the field were growing sufficiently close together to permit a chance of comparing and contrasting their characteristics. A rise in the ground between the woodland and Llyn Gwynant indicated a change in geology to the more acid 'Upper Rhyolitic Tuffs' with the summit outcrops harbouring sheets of *Lasallia pustulata* and *Lecanora soralifera*, surprisingly the first record for this latter species during the meeting. A copper mining trial, driven into the hillside supported *Trapelia involuta* on the damp rock at the entrance and also the metalophyte *Psilolechia leprosa* between the stones of a revetment. The final total of 143 taxa reflects the importance of this area particularly for certain groups - there were for example, 13 species of *Cladonia* found and 10 species each of the genera *Parmelia* and *Pertusaria*. An unusual member of the last genus, *Pertusaria coccodes*, having exceptionally long isidia, was found on a shaded wall.

The cloud cap lifted from the summit of Y Wyddfa as we assembled back at the vehicles and snow patches flecking its eastern face reminded the party that winter lingers long on this the highest mountain in Wales. The journey south to Dolgellau was quite extraordinary, with that bright sunshine and those distant vistas that only the mountains after rain can produce. The Rhinogs and Moelfre to the west were magnificent, but before us Cadair Idris filled our horizon and was beyond description!

Sunday 30th April

Llanelltyd Church SH717195, Cymer Abby SH 722195, Fegla Fawr SH 629146, Fairbourne - tank defences SH 611131.

Clear blue skies with breathtaking views south towards Cadair Idris; what better start could there have been to the final day? A climber was visible on the summit at 7.00am no doubt astounded by the wide and unclouded panorama of mountains and valleys, towns, lakes and the wide ocean out to the west.

Llanelltyd, St. Illtyds Church (SH 717195)

This lovely medieval church was of local stone under a slate roof and as always in this area, memorials in the older yard were mainly of the same materials. An extension yard to the west had imported stone; *Sarcopyrenia gibba* was found growing on a marble cross, the first vice county record and the fourth for Wales, and the usual early colonisers of slate and granite *Buellia aethalea* and *Rhizocarpon reductum* were common. On the north wall of the church many of the familiar species found in the midland counties were growing on the lime mortar. Included here were *Caloplaca saxicola, Diplotomma alboatrum, Lecanora conferta* and *L. crenulata. Dirina massiliensis f sorediata,* on the same wall, had a distinctive warm pink colouration which has previously been noted at Perranuthnoe church in Cornwall is the pigmentation a maritime phenomena one wonders? Toxic run off from a copper plaque on one memorial had cleared the stone below of all lichens, not even *Psilolechia leprosa*, that usually reliable copper metalophyte was present. The woman interred below was celebrated in life for her ability to write different prose simultaneously with each hand. There is the story that her head was buried away from the body to thwart the Victorian anatomists who were prepared to go to any lengths to acquire this unique brain. A local lady, in an adjacent garden, seeing our interest in the headstone inquired if the party was related to the deceased - a query, I have no doubt influenced by the size of the crania on display!

The Abbey of Cymer (SH 722195)

Across the river from the church, this ruined thirteenth century Cistercian foundation with its soaring, broken gothic arches, was surveyed and an exceptional total of 81 species were recorded in a relatively short time. *Acarospora impressula, Arthonia*

radiata, Belonia nidarosiensis, Bacidia carneoglauca and the two *Caloplacas*, *C. arenaria* and *C. ceracea* were interesting finds. An albino *Verrucaria*, having pink fruits, previously known as *V. carnea* but now thought to be synonymous with *V. macrostoma* O L Gilbert (1996), was recorded by Steve Chambers in a number of separate places. Its appearance was initially puzzling, but it would seem from the description that once recognised, it is easier to identify than the normal form of the taxa!

Fegla Fawr (SH 629146)

The final afternoon was spent in glorious sunshine surveying Fegla Fawr with the Afon Mawddach estuary below and Bardsey Island and the Lleyn peninsula visible thirty miles distant across an azure sea.

Fegla Fawr proved to be a rock outcrop of Tremadoc Shales and grits topped by with an oakwood of almost 'Tolkinesque' quality, with trees dwarfed and contorted by the westerly gales sweeping down the estuary. Low branches were conveniently at eye level and their lichen flora provided a good revision of the many corticolous species of *Parmelia* seen during the week. *P. britannica* and *P. taylorensis* were also recorded on the rocks and the appearance in quantity of the genus *Ramalina* indicated the oceanic nature of the environment. *Pertusaria pseudocorallina* was frequent on the outcrops and *Lecanora coriensis* was again recorded from humid crevices.

An ice cream savoured on the sea wall at **Fairbourne**, completed the week on a gastronomic high and for one person a paddle in the waves proved to be irresistible. A few members were not seduced by this decadence and with an enthusiasm for their calling that was laudable, surveyed the tank defences (poignant legacies of the war) situated high up on the beach. *Caloplaca teicholyta*, a new vice county record, and a *C.aurantia/C. flavescens* "look alike" were recorded - even by the sea the last two seek to deceive! A galvanised fence had three of the party on their knees "*Vesdaeing*", a sight which a number of families on holiday found so unsettling that, presumably to avoid the demands of their offspring for ice cream of such dubious quality, unlike the good samaritan, decided to pass on the other side!

And so the meeting ended in style and good humour. For the lichenologist Merionethshire is an extraordinary vice-county, and the woodlands to the north of the Mawddach are clearly of international importance – Francis Rose would rank them close behind those of the western Scottish highlands, the forests of the western Pyrenees and of Killarney in Ireland. The privilege of walking these silvan valleys will not be forgotten, their sights and sounds are now part of that 'inward eye'. The week was made even more memorable by both the 'warmth' of the group and the attitude of its members to the exceptional lichen flora of the area. There was virtually

no collecting of specimens, a licence, which on occasions has marred previous BLS meetings. The evenings spent cosseted with the laptop feeding the 'maw' of BioBase, and for once producing readable lists of species, went some way to convincing the doubters as to its value. At the very least it permitted the most outrageous insults to be directed at the technical ability of the processors without apparent offence!

Our thanks must go to the organisers and leaders. To Trevor Duke for the logistics, to Ray Woods for his leadership and enthusiasm in Cwm Bychan and Hafod y Llan; to Peter Benoit the leading botanist of Merionethshire (with a considerable knowledge of lichens) who joined us with his usual charm and expertise at several of the sites; to Annie Seddon of the CCW always ready to smile and encourage us in our task, no small ability in this disparate company! and of course, finally to Francis Rose for his deep insights and encyclopaedic knowledge of the lichens of this area. A final comment of his should lift all of our spirits after the wholesale demise of the lichen flora of much of the country over the past century. "The lichen communities in the woods seem today to be as good as when I first visited in 1970."

References:

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Pentecost, A (1987) The lichen flora of Gwynedd. *Lichenologist* **19**: 97-166.
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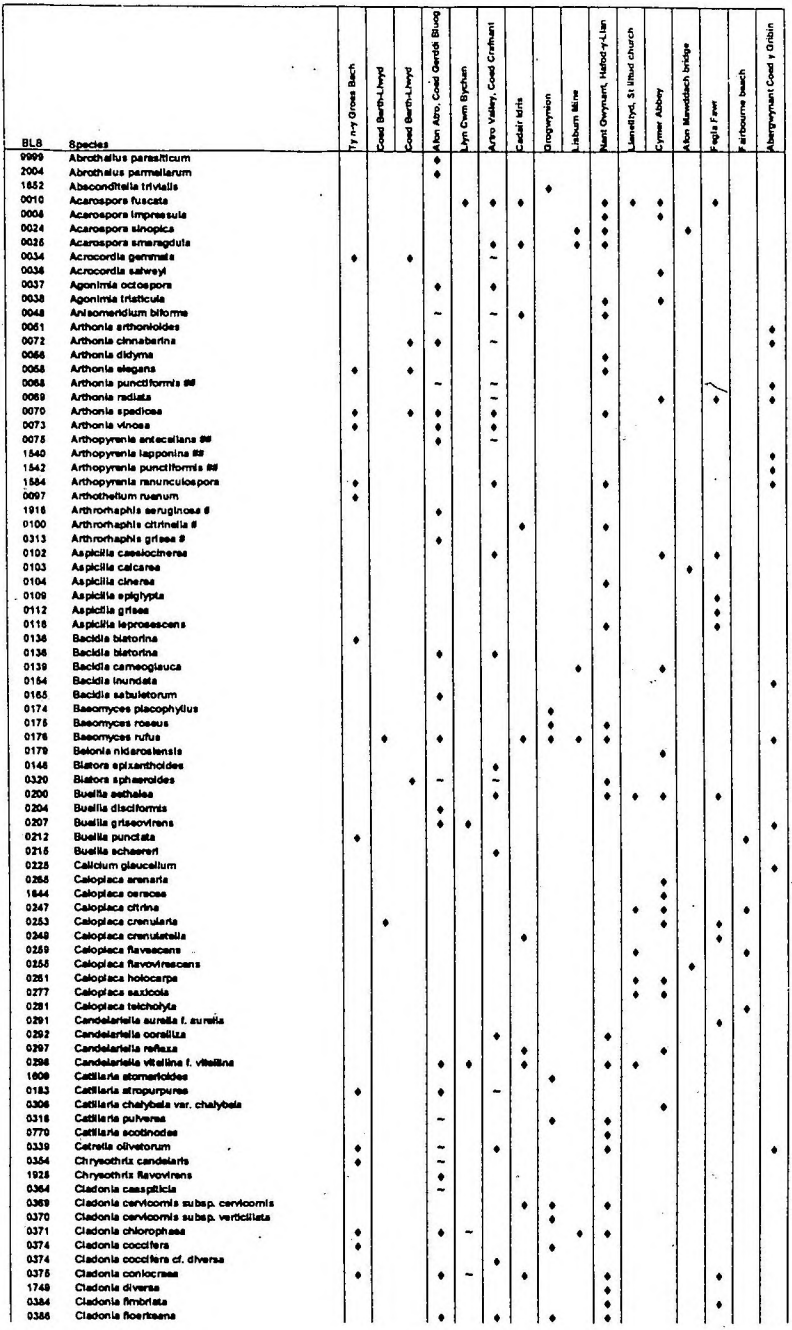
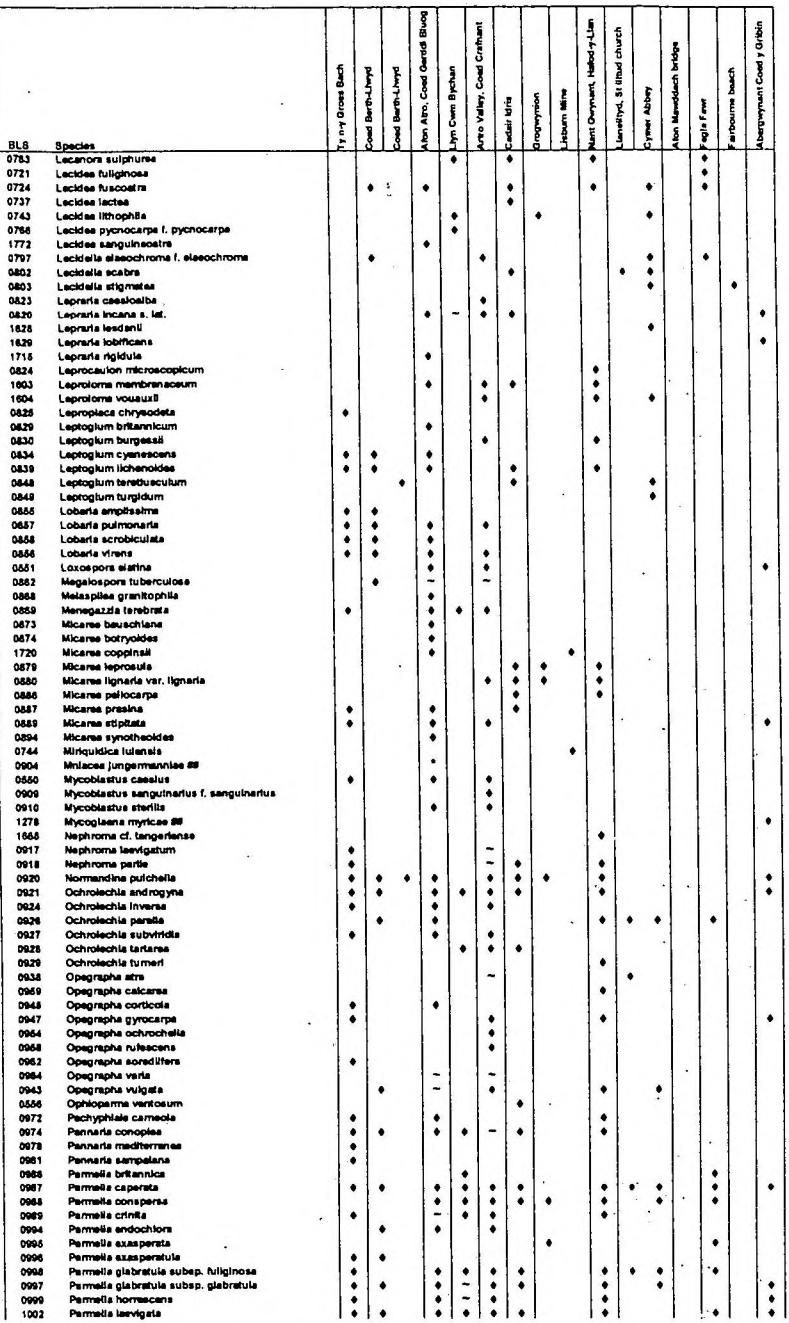
- but not quite the full story!

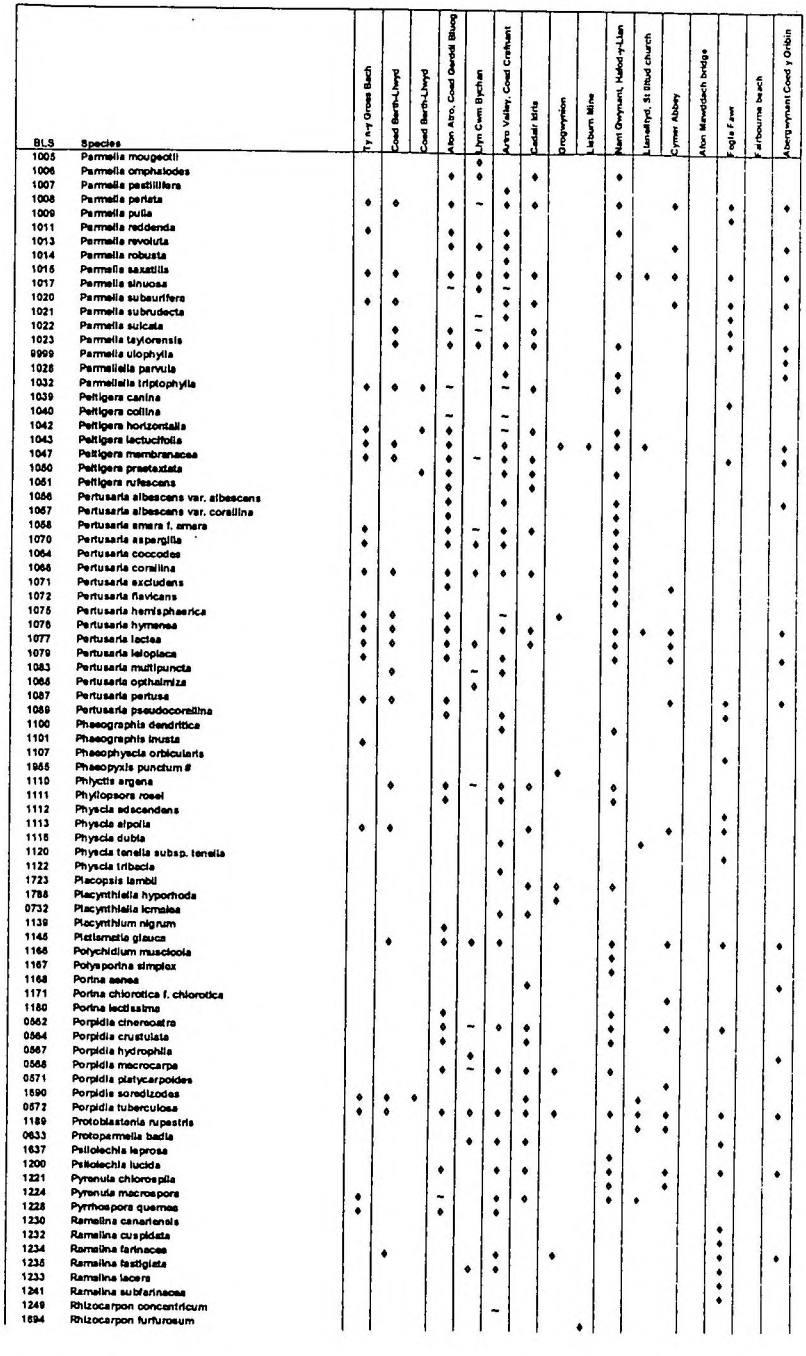
Abergwynant, Coed y Gribin was visited by a number of the group after the meeting had dispersed – their records are incorporated into the full list of sites and species for the area. In addition a number of Welsh and Shropshire churchyards were surveyed during the journey to Dolgellau. Lists of species found are available from the Field Meetings Secretary.

I Pedley


BLS
Species
Abrothallus parasiticum
Abrothallus parmeliarum
Absconditella triviallis
Acarospora fuscata
Acarospora impressula
Acarospora sinopica
Acarospora smaragdula
Acrocordia gemmata
Acrocordia salweyi
Agonimia octospora
Agonimia tristicula
Anisomeridium biforme
Arthonia arthonioides
Arthonia cinnabarina
Arthonia didyma
Arthonia elegans
Arthonia punctiformis ##
Arthonia radiata
Arthonia spadicea
Arthonia vinosa
Arthopyrenia antecellans ##
Arthopyrenia lapponina ##
Arthopyrenia punctiformis ##
Arthopyrenia ranunculospora
Arthothelium ruanum
Arthrorhaphis aeruginosa #
Arthrorhaphis citrinella #
Arthrorhaphis grisea #
Aspicilia caesiocinerea
Aspicilia calcarea
Aspicilia cinerea
Aspicilia epiglypta
Aspicilia grisea
Aspicilia leprosescens
Bacidia blastorina
Bacidia blastorina
Bacidia carneogleuca
Bacidia inundata
Bacidia subincompta
Basomyces placophyllus
Basomyces roseus
Basomyces rufus
Belonia nidarosiensis
Biatora epixanthoides
Biatora sphaeroides
Buellia aethalea
Buellia disciformis
Buellia griseovirens
Buellia punctata
Buellia schaereri
Calicium glaucellum
Caloplaca arenaria
Caloplaca cerinea
Caloplaca citrina
Caloplaca crenularia
Caloplaca crenulatella
Caloplaca flavescens
Caloplaca flavovirescens
Caloplaca holocarpa
Caloplaca saxicola
Caloplaca teicholyta
Candelariella aurella f. aurella
Candelariella coralliza
Candelariella reflexa
Candelariella vitellina f. vitellina
Catillaria atomarioides
Catillaria atropurpurea
Catillaria chalybeia var. chalybeia
Catillaria pulverea
Catillaria scotinodes
Cetrelia olivetorum
Chrysothrix candelaris
Chrysothrix flavovirens
Cladonia cassapticia
Cladonia cervicornis subsp. cervicornis
Cladonia cervicornis subsp. verticillata
Cladonia chlorophaea
Cladonia coccifera
Cladonia coccifera cf. diversa
Cladonia conlocrea
Cladonia diversa
Cladonia fimbriata
Cladonia floerkeana
Ty n-y Gross Bach
Coed Barth-Llwyd
Coed Barth-Llwyd
Afon Afro, Coed Gerdd Bluog
Llyn Cwm Bychan
Afon Afro, Coed Cefnhaul
Cadair Idris
Drogwynion
Lisburn Mine
Nant Gwynant, Hafod-y-Llan
Llanelltyd, St Illtud church
Cymer Abbey
Afon Mawddach bridge
Fegla Fawr
Fairbourne beach
Abergwynant Coed y Gribin

BLS	Species	Ty n-y Groes Buch	Coed Berth-Llwyd	Coed Berth-Llwyd	Afon Alyn, Coed Gwydd Bluog	Llyn Cwm Bychan	Aran Valley, Coed Grafham	Cadair Idris	Dinas Mawddwy	Llanuwchllyn	Nant Gwynant, Hafod-y-Llan	Llanelltyd, St Illtud church	Cymer Abbey	Afon Mawddach bridge	Fegla Fawr	Fairbourne beach	Abergwynant, Coed y Grolin
0389	Cladonia furcata				◆												◆
0392	Cladonia gracilis	◆			◆												◆
0394	Cladonia incrassata																
0396	Cladonia macilenta	◆			◆		◆				◆				◆		◆
0397	Cladonia macrophylla																
0404	Cladonia parasitica																
0408	Cladonia polydactyla var. polydactyla	◆	◆														◆
0409	Cladonia portentosa		◆		◆		◆	◆			◆				◆		◆
0410	Cladonia pyxidata	◆			◆						◆						◆
0359	Cladonia ramulosa																
0412	Cladonia rangiformis																
0416	Cladonia squamosa var. squamosa		◆		◆		◆										
0417	Cladonia squamosa var. subsquamosa							◆									
0420	Cladonia strepsilis								◆								
0421	Cladonia subcervicornis						◆	◆	◆		◆						
0422	Cladonia subulata								◆	◆							
0426	Cladonia uncialis subsp. biuncialis						◆	◆	◆		◆						
0761	Clauzadea monticola																
0429	Cliostomum griffithii	◆			◆		◆										
0430	Coelocaulon aculeatum						◆		◆	◆							
0431	Coelocaulon muricatum								◆	◆							
0433	Collema auriforme				◆								◆				
0440	Collema crispum										◆		◆				
0446	Collema flaccidum				◆						◆						◆
0457	Collema subflaccidum		◆														
0459	Collema tenax var. tenax				◆				◆				◆				
1977	Coppinsia minutissima																
0477	Cystocoleus ebeneus				◆		◆				◆						
1973	Dactylospora parasitica				◆												
1029	Degelia plumbea						◆										
0487	Dermatocarpon luridum				◆					◆							
0490	Dimerella lutea	◆			◆		◆	◆			◆				◆		◆
0489	Dimerella pineti			◆					◆								
0494	Diploschistes muscorum																
0495	Diploschistes scruposus							◆	◆		◆						
0496	Diplotomma alboatrum									◆	◆						
0500	Dirina massiliensis f. sorediata									◆							
0504	Enterographa crassa									◆	◆						
0967	Enterographa zonata		◆		◆		◆										
0510	Epilichen scabrosus #								◆								
0511	Evernia prunastri		◆														
0518	Fuscidea cyathoides var. cyathoides		◆		◆	◆	◆	◆		◆	◆		◆				
0521	Fuscidea lightfootii	◆															
0526	Fuscidea recensa				◆		◆			◆	◆						
1824	Fuscidea viridis	◆															
0529	Graphina anguina																
0533	Graphis scripta	◆	◆		◆	◆	◆	◆		◆	◆		◆		◆		
0541	Gyalecta truncigena				◆												
0555	Haematomma ochroleucum var. porphyrium																
0557	Herteliana taylorii																
2072	Homostegia piggotii #				◆												
0573	Hymenelia lacustris					◆		◆									
0578	Hypocenomyce scalaris					◆	◆	◆									
0582	Hypogymnia physodes	◆				◆	◆	◆	◆		◆		◆		◆		◆
0583	Hypogymnia tubulosa					◆	◆	◆			◆						
0699	Immersaria athroocarpa																
1033	Imshaugia aleurites						◆										
0585	Ionaspis epulotica						◆										
0591	Lasallia pustulata						◆										
0592	Lecanactis abietina	◆															
0605	Lecanactis premnea																
0764	Lecanora albella																
0627	Lecanora albescens																
0635	Lecanora campestris subsp. campestris																
0636	Lecanora carpinea																
0639	Lecanora chlarotera	◆	◆		◆		◆	◆	◆	◆	◆	◆	◆		◆		◆
0640	Lecanora conferta																
0641	Lecanora confusa																
9998	Lecanora corlensis		◆														
0644	Lecanora crenulata																
0646	Lecanora dispersa																
0647	Lecanora epanora																
0649	Lecanora expallens	◆	◆														
0653	Lecanora gangaleoides		◆														
0656	Lecanora intricata																
0657	Lecanora intumescens																
0658	Lecanora jamesii																
0661	Lecanora muralis																
1836	Lecanora persimilis																
0667	Lecanora polytropa																
0674	Lecanora rupicola var. rupicola																
0675	Lecanora saligna																
0679	Lecanora soralifera																


BLS
Species
Tryn-y-Groes Bach
Coed Berth-Llwyd
Coed Berth-Llwyd
Afon Alyn, Coed Gardd Bluog
Llyn Cwm Bychan
Afon Valley, Coed Crafnant
Cadair Idris
Dinas-mawddwy
Llanbedr Mine
Nant Gwynant, Hafod-y-Llan
Llanelltyd, St Illtud church
Cymer Abbey
Afon Mawddach bridge
Fegla Fawr
Fairbourne beach
Aberglaslyn/Coed y Gribin
0783 Lecanora sulphurea
0721 Lecidea fuliginosa
0724 Lecidea fuscoatra
0737 Lecidea lactea
0743 Lecidea lithophila
0766 Lecidea pycnocarpa f. pycnocarpa
1772 Lecidea sanguineoatra
0797 Lecidella elaeochroma f. elaeochroma
0802 Lecidella scabra
0803 Lecidella stigmatea
0823 Lepraria caesioalba
0820 Lepraria incana s. lat.
1628 Lepraria lesdainii
1629 Lepraria lobificans
1715 Lepraria rigidula
0824 Leprocaulon microscopicum
1603 Leproloma membranaceum
1604 Leproloma vouauxii
0825 Lepropleca chrysodeta
0829 Leptogium britannicum
0830 Leptogium burgessii
0834 Leptogium cyanescens
0839 Leptogium lichenoides
0848 Leptogium teretiusculum
0849 Leptogium turgidum
0855 Lobaria amplissima
0857 Lobaria pulmonaria
0858 Lobaria scrobiculata
0856 Lobaria virens
0851 Loxospora elatina
0862 Megalospora tuberculosa
0868 Melaspilea granitophila
0869 Menegazzia terebrata
0873 Micarea bauschiana
0874 Micarea botryoides
1720 Micarea coppinsii
0879 Micarea leprosula
0880 Micarea lignaria var. lignaria
0886 Micarea pellocarpa
0887 Micarea prasina
0889 Micarea stipitata
0894 Micarea synotheoides
0744 Miriquidica lulensis
0904 Mniaecea jungermanniae ##
0550 Mycoblastus caesius
0909 Mycoblastus sanguinarius f. sanguinarius
0910 Mycoblastus sterilis
1278 Mycoglaena myricae ##
1668 Nephroma cf. tangerlense
0917 Nephroma laevigatum
0918 Nephroma parile
0920 Normandina pulchella
0921 Ochrolechia androgyna
0924 Ochrolechia inversa
0926 Ochrolechia parella
0927 Ochrolechia subviridis
0928 Ochrolechia tartarea
0929 Ochrolechia turneri
0938 Opegrapha atra
0939 Opegrapha calcarea
0948 Opegrapha corticola
0947 Opegrapha gyrocarpa
0964 Opegrapha ochrochela
0958 Opegrapha rufescens
0962 Opegrapha sorediifera
0984 Opegrapha varia
0943 Opegrapha vulgata
0556 Ophioparma ventosum
0972 Pachyphiale carneola
0974 Pannaria conoplea
0978 Pannaria mediterranea
0981 Pannaria sampaiana
0988 Parmelia britannica
0987 Parmelia caperata
0988 Parmelia conspersa
0989 Parmelia crinita
0994 Parmelia endochlora
0995 Parmelia exasperata
0996 Parmelia exasperatula
0998 Parmelia glabratula subsp. fuliginosa
0997 Parmelia glabratula subsp. glabratula
0999 Parmelia homrescens
1002 Parmelia laevigata


BLS
Species
Tynty Gross Bach
Coed Berth-Llwyd
Coed Berth-Llwyd
Afon Afro, Coed Gendol Bluog
Llyn Cwm Bychan
Afro Valley, Coed Cwmhwnt
Cadair Idris
Dinas Mawddwy
Lisburn Mine
Nant Gwynant, Hafod-y-Llan
Llanelltyd, St Illtud church
Cymer Abbey
Afon Mawddach bridge
Fegla Fawr
Fairbourne beach
Abergynolwyn Coed y Grifrin

BLS	Species	Ty-nr-Gross Bach	Coed Barth-Lheyd	Coed Barth-Lheyd	Afon Afro, Coed Gerddi Blaog	Llyn Cwm Bychan	Aprro Valley, Coed Crafnant	Cadair Idris	Drogwynion	Llyn Cwm Bychan	Nant Gwynant, Hafod-y-Llan	Llanelityd, St Illtud church	Cymer Abbey	Afon Mawddach bridge	Fagla Fawr	Fairbourne beach	Aberglaslyn Coed y Grbin
1257	Rhizocarpon geographicum		◆		◆			◆ ◆ ◆			◆	◆					
1265	Rhizocarpon lecanorinum				◆				◆ ◆		◆	◆					
1266	Rhizocarpon obscuratum								◆		◆						
9999	Rhizocarpon oceanicum s. Fryday								◆								
1267	Rhizocarpon oederi					◆											
0733	Rimularia badiostra						◆				◆						
0722	Rimularia furvella														◆		
0736	Rimularia insularis														◆		
1281	Rinodina atrocinerea																
1291	Rinodina isidioides	◆			◆		!					◆			◆		
1293	Rinodina luridescens																
1307	Sarcopyrenia gibba #																
1313	Schaererla fuscocinerea var. fuscocinerea						◆	◆			◆						
1315	Schismatomma decolorans						◆		◆								
1322	Scolicioporum umbrinum												◆				
1332	Sphaerophorus fragilis	◆									◆						
1333	Sphaerophorus globosus				◆	◆	◆				◆						
1334	Sphaerophorus melanocarpus				◆	!	◆										
1564	Stenocybe septata ##						◆										
1351	Stereocaulon condensatum								◆	◆							
1352	Stereocaulon dactylophyllum var. dactylophyllum								◆	◆							
1356	Stereocaulon evolutum							◆			◆						
1357	Stereocaulon nanodes								◆								
1364	Stereocaulon vesuvianum var. nodulosum								◆								
1363	Stereocaulon vesuvianum var. vesuvianum							◆			◆						
1368	Sticta canariensis							◆			◆						
1367	Sticta fuliginosa	◆	◆		◆		!	◆			◆		◆				
1358	Sticta limbata	◆	◆		◆		!	◆	◆		◆						
1369	Sticta sylvatica	◆	◆		◆		!	◆			◆						◆
0630	Tephromela atra											◆			◆		
1408	Thelopsis rubella						◆	◆	◆		◆						
1410	Thelotrema lepadinum	◆			◆			◆									
1565	Tomasellia gelatinosa ##																◆
1415	Toninia aromatica												◆				◆
1425	Toninia thiospora							◆									
1431	Trapelia coarctata	◆	◆					◆			◆						
1581	Trapelia corticola				◆	◆		◆									
1432	Trapelia involuta				◆			◆			◆		◆				
1596	Trapelia placodioides			◆	◆			◆	◆		◆						
0692	Trapeliopsis flexuosa				◆												
0727	Trapeliopsis granulosa				◆			◆	◆		◆						
1582	Trapeliopsis pseudogranulosa				◆												
1438	Tremolecia atrata				◆	◆	!	◆			◆			◆			
1440	Tylothallia biformigera	◆													◆		
1469	Usnea comuta	◆			◆	!	◆								◆		
1461	Usnea flammea	◆			◆		◆										◆
1462	Usnea florida	◆					◆										
1464	Usnea fragilescens var. fragilescens						◆										
1470	Usnea rubicunda				◆		◆										
1471	Usnea subfloridana	◆			◆	◆	◆								◆		
1479	Verrucaria baldensis											◆					
1819	Verrucaria camea (cf. macrostoma)												◆				
9999	Verrucaria elaeina									◆							
1492	Verrucaria glaucina												◆				
1496	Verrucaria hochstetteri											◆					
1519	Verrucaria macrostoma f. furfuracea											◆					
1507	Verrucaria muralis											◆	◆				
1810	Verrucaria nigrescens											◆	◆				
1513	Verrucaria praetermissa							◆									
1429	Vezdaea cobria								◆								
1538	Xanthoria ectaneoides														◆		
1530	Xanthoria parietina												◆		◆		
1531	Xanthoria polycarpa														◆		
1178	Zamenhofia hibernica							◆									
1178	Zamenhofia roseli										◆						
	Total	90	69	13	168	63	158	86	49	20	143	38	91	4	79	6	68

* recorded during Spring Meeting

\- previously recorded by F.Rose and presumed still to be present, but not seen during the Spring Meeting

AUTUMN MEETING IN THE COTSWOLDS:SOCIAL
October 27-29 2000

This meeting was well attended (22 people) probably because the area has a reputation as a rural idyll, a place of happy innocence and rusticity. On coming down to breakfast on the first morning I enquired if anyone had heard the weather forecast only to be told 'You don't want to know', I gather it was something like heavy rain and gales sufficient to cause structural damage. I have a mind set against changing plans so we immediately headed for the exposed Jurassic Limestone ridge of Crickley Hill. As we drove up the dip slope to nearly a thousand feet the cloud base got lower but never engulfed more than the tops of the trees. Enjoying a bright interval we started examining the natural limestone outcrop of the scarp to compare with an adjacent quarried area. Everyone had been warned about collecting in this popular country park. From churchyard work most of us know how to make an invisible collection for confirmation purposes while refraining from taking herbarium specimens. When a member shouted out '*Caloplaca dalmatica*' this produced an interesting North/South divide; the Southerners accepted it without a second thought, while the Northerners, who never see this species, were highly sceptical. We split into an adventurous party that grappled with steep wet grass and one composed of a higher age group which stuck to the paths. The path team came up with the better finds.

Having achieved the morning objective with a minimum of discomfort we retired to the pub at Chedworth for lunch, all except for Tom Chester who had a bonding session with the local churchyard which he reported as good for *Hymenelia prevosti*. During lunch the weather front arrived. Undismayed, most people went to help Tom with the church but a pair of trailblazers investigated the local disused airfield which by then was an inch deep in water, the horizontal rain sweeping in making it seem like the Cairngorm plateau. Back at the church the entire party had taken refuge in the porch. So Plan A (the churchyard) and Plan B (the airfield) were abandoned in favour of Plan C. This was to try to relocate *Lobaria pulmonaria* in Chedworth Woods where Francis Rose and Keith Alexander had found it in 1980. This we failed to do but the *Lobaria* hunt kept us happy and sheltered from the wind until light faded, and some good finds were made.

The evening was dominated by two events. A magnificent supper, that our hostess had spent all day preparing was taken sitting round one big table; this was followed by an even more magnificent slide show by Jeremy Gray who showed us an unrivalled suite of pinewood lichens. Sated, we retired early having been somewhat battered by the elements.

Sunday dawned wet and windy, but having short memories, we set out in high spirits to investigate a typical Cotswold Gill woodland near Sapperton; it had been recommended by English Nature. Apart from appalling mud that rendered wellingtons *de rigeur*, conditions were not bad and we were blessed with another fine spell. There was plenty there for beginners who wanted to know, for example, the difference between *Parmelia subrudecta* and the recently split off *P. ulophylla*, or how to tell the two *Graphis* species apart, while large mossy ash trees kept the more experienced members on their toes. The afternoon was a repeat of Saturday with curtains of rain sweeping in and preventing a full survey of Sapperton church or even a visit to the nearby Cirencester Deer Park. The take home message was that there are still many attractive sites to survey in the Cotswolds.

Oliver Gilbert

LICHENS IN LITERATURE: 6

In his book "Tomintoul, its glens and its people" the late Victor Gaffney refers to some enterprising brothers, George and Cuthbert Gordon, of Mid Fodderletter Farm near Tomintoul. In the 1750s they set up the Cudbear manufacture in Leith. According to Gaffney this was aimed at effecting great savings on the import of foreign dyes. After George died in 1765 Cuthbert carried on alone and made further discoveries, but (date unknown) the business failed. However, it seems that in 1777 a further business was established by Cuthbert in Glasgow (name unknown) - this too was doomed to failure (however, Cuthbert went on to qualify in medicine Aberdeen 1785). I have not yet researched these enterprises fully.

Gaffney further reports that: "During the Napoleonic period, the manufacture was revived and Glasgow merchants paid £400-500 for the lichen and bedstraw plants gathered by Banffshire and Aberdeenshire children, and sold to the manufacturers at 3s 4d per stone." Unfortunately he doesn't tell us which lichen was collected. Maybe an advert in the "P&J" of the day would solve the problem?

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Easthaven,
13 Admiralty Street,
Portknockie,
Buckie,
AB56 4NB

REPORT FROM THE FIRST RUSSIAN LICHENOLOGICAL FIELD MEETING, KHIBINY MOUNTANS, KOLA PENINSULA, AUGUST 6-12

Lichenological field meetings have always been an attraction for many specialists and nature lovers allowing them to explore the lichen diversity of the new areas and to meet colleagues and friends in romantic field conditions. Such events have proved to be invaluable for education of students and young specialists as it is often difficult to find an experienced lichenologist in every university, where youngsters are becoming intrigued by the lichens.

These ideas came up to minds of the Russian participants of the Nordic Lichen Society Field Meeting in Kuhmo, Finland in August 1999 and during the subsequent year the first Russian lichenological field meeting was organised and conducted in the Khibiny Mountains of Kola Peninsula (Murmansk region, Russian Federation). Khibiny Mountains are the one of the fascinating areas of the European Russian north, located 120 km above the Polar circle (on the latitude of 67°). This area is interesting from both cultural and economic point of views, being a part of the aborigine Saami people's land and the route along which explorers from the south were coming. A number of minerals have long been extracted from the mountains giving rise for settlements and towns around. Furthermore, one of the northernmost Botanical gardens (Polar-Alpine Botanical Garden-Institute of the Russian Academy of Science) has been here since 1931. The territory of the Botanical Garden that acted as the host for the field meeting is over 1500 hectares and extends from the point of 311 metres up to 1060 metres above the sea level.

Lichenological studies in the area are firstly connected with the name of the famous Russian lichenologist Dr Anna Dombrovskaya, who devoted all her life in science to exploration of the lichen flora of the Kola peninsula and organised the Lichenological herbarium known as PABGI. Further research in the area was done by Tamara Dudoreva, who concentrated also on the genus *Cladonia*, and Irina Antonova, who studied epilithic lichens in the region. More recently Olga Petrova started investigating eiphytic lichens in the Murmansk region as well as studies of the general *Usnea* and *Bryoria*. The flora is thus quite well known and in addition the variety of ecotopes and lichen communities is very diverse. This made the region a very attractive venue for the gathering of scholars from various parts of Russia and abroad.

The idea of the Lichenological Field meeting was supported by the Russian Federal programme "Integration", Barents Secretariat in Kirkines (Norway), St Petersburg Naturalists Society, and Russian Botanical Society and the event was organised jointly by the Polar-Alpine Botanical Garden-Institute, St Petersburg Naturalists Society, St Petersburg State University and Petrozavodsk State University. Total of 43 participants came to the meeting from all over Russia representing the area from Juzhno-Skhalinsk (Sakhalin island, Far East) to Kaliningrad and from Volgograd (semi-desert zone) to Apatity (northern taiga - tundra zone). Also Russian speaking colleagues from Lithuania and Poland took part. Students and researchers from twenty five universities and institutions were present.

The field meeting was mostly concentrated on the field excursions. Participants visited five sites in the Khibiny mountains and collected lichens on the territory of the Polar-Alpine Botanical Garden, where principal northern mountain belts are represented, along the Malaya Belay River valley in western Khibiny with the old-growth river valley forests, at the Lovchorr mounting southern slopes with various tundra communities and along the southern canyon with the high diversity of epilithic lichens. One of the most difficult excursions was organised to the Central Khibiny complex. Simultaneously (during the evenings) a number of lectures on lichen flora, geography, communities and conservation were given by specialists and the Minisymposium "Polar-Alpine Lichen Flora. Lichen conservation biology" was held where participants presented posters dedicated to their studies. Abstracts of the presentations together with description of the excursions were published in a volume "*First Russian Lichenological Field Meeting. Programme and Abstracts*" now available from secretaries of the Organising committee Olga V Petrova (Kirovsk) and Alexei A Zavarzin (St Petersburg). Furthermore the separate volume of scientific papers "Proceedings of the First Russian Lichenological Field Meeting" is under preparation.

The meeting got an attention from local and regional mass media and part of it was filmed by the National TV team, that prepared and broadcasted a programme about lichenology and lichenologists in Russia. This is very important from the point of view of publicising of scientific events and of attracting young people and nature lovers to the field of lichenology.

The Field Meeting and its Minisymposium showed also that most of lichenological research in Russia at the moment is oriented towards inventory of the lichen diversity (mostly floristics). At the same time such fields as taxonomy, lichen biology, lichen monitoring, etc, are less developed in the country. Only St Petersburg University, Polar-Alpine Botanical Garden-Institute, Volgograd University and Sakhalin Botanical Garden presented taxonomical studies. Ekaterinburg, Ufa and Petrozavodsk had posters on lichen monitoring and conservation issues, whilst just Syktyvkar presented the group of physiologists. At the same time the field meeting clearly showed that the interest towards lichenology is growing all over Russia and the necessity for broadening of lichenological studies is a need at the present time.

The next lichenological field meeting is planned for May 1-9 2001, and is organised by Voronezh State University and Volgograd State Pedagogical University. The second meeting has a goal to show to participants the lichen diversity along the transect from semi-deserts to forest-steppes of European Russia. All the interested may contact the secretaries of the Organising Committee: Dr Eugenia Muchnik (Voronezh State University, e-mail: mail@mucsf.vrn.ru) and Mr Vitaly Kulakov (Volgograd State Pedagogical University, e-mail: kulakov@vspu.ru).

Alexei Zavarzin
St Petersburg State University, Russia

SLOVAK LICHENOLOGY IN 1999

The Slovak lichenological working group "*Cladonia*" opened the season on March 25, at its traditional session "Appertio Anni Lichenologici". On the following day a field trip was undertaken to the grove "Panónsky háj" - a classical locality near Bratislava visited already by S Lumnitzer, J Bolla or A Zahlbruckner.

In May two students graduated at the Comenius University, Bratislava: Anamária Poëubajová with the thesis "Lichens of the Slovenský Raj National Park" and Viera Orthová "Bioindication of environmental changes of selected sites of the western part of Podunajská Níäina lowland with epiphytic lichens". Anna Guttová defended her PhD thesis "Taxonomy and chorology of the genus *Leptogium* in the Slovak and in the Czech Republic".

The exhibition "Lichens - endangered partnership" was held in Slovak National Museum, Bratislava, June 22-Ocober 29. In an area of about 192 m^2, 45 posters and 8 museum showcases were placed. Nearly 130 lichen specimens from various parts of the world as well as medicaments, cosmetic products, decorative articles, literature, etc were displayed. A leaflet, written by E Lisická and published by Slovak National Museum, provided the visitors with everything there was to know about lichens in a nutshell. The exhibition focused both on the high sensitivity of lichens to environmental changes causing their widespread decline and the need of their conservation. The importance of lichens as monitors of air pollution was stressed too. The exhibition was visited by c.9000(!) visitors.

Warm thanks are extended to all those who have helped in one way or another to make the exhibition a success, especially to Jozef Halda for loaning his splendid photographs.

The most important field-meeting event of 1999 was the meeting of BLAM in Stará Lesná, at the foot of the Vysoké Tatry Mts, 15-20 August. The meeting gave the 56 participants from 7 European countries the opportunity to visit attractive granite and limestone sites of Tatry National Park (the oldest Slovak national park and since 1993 a biosphere reserve), Slovenský Raj National Park (famous by its deep, shady gorges with dealpine flora), Sivá Brada National Nature Reserve (travertine mound with mineral water sources) and finally Dreveník National Nature Reserve (the greatest travertine area in Slovakia with karst morphology).

At the end of the season again a one-day field trip to Malé Karpaty Mts, limestone sites at Vápenná Mt, was undertaken.

Selected papers published by Slovak lichenologists or about Slovak lichens in 1999

Dětinský, R, Lisická, E (1999) New localities of some interesting *Peltigera* species (lichenized Ascomycotina) in Tatra National Park, Slovakia. *Bull. Slov. Bot. Spoloën.*, Bratislava, **21**: 43-47 [in Slovak with English abstract].

Guttová, A (1999) *Collema ceraniscum* (lichenized Ascomycetes, Collemataceae) in the Carpathians. *Biol., Sect. Bot.* **54**: 472.

Guttová, A & Palice, Z (1999) Lichens of National Park Muránska planina I - the Hrdzavá dolina Valley, p. 35-47. In Uhrin, M (ed.), *Výskum a ochrana prírody Muránskej planiny* 2. MP SR, Bratislava a Správa NP Muránska planina, Revúca [in Slovak with English abstract].

Hajdúk, J & Lisická, E (1999) *Cladonia rei* (lichenized Ascomycotina) on heavy metal-contaminated habitats near copper smelters at Krompachy (NE Slovakia) *Bull. Slov. Bot. Spoloën.*, Bratislava, **21**: 49-51 [in Slovak with English abstract].

Lisická, E (1999) Note on the distribution of *Omphalina* species growing on peat bogs. *Spravodajca Slov. Mykol.* 7, **23**: 23-2 [in Slovak with English abstract].

Lisická, E. (1999) Contribution to the lichen flora of the Veľká Fatra Mts. (central Slovakia). *Zborn. Slov. Nár. Múz., Prír. Vedy* **45**: 7-16 [in Slovak with English abstract].

Lisická, E & Lackoviëová, A (1999) A preliminary checklist of lichenicolous fungi of Slovakia. In *Zborník zo VII. zjazdu Slov. bot. spoloën.* Hrabušice - Podlesok, p. 201-203 [in Slovak with English abstract].

Orthová, V & Pišút, I (1999) A few interesting lichens from the vicinity of Bratislava (SW Slovakia). *Bryonora* **23**: 8-9 [in Slovak with English abstract].

Palice, Z (1999) New and noteworthy records of lichens in the Czech Republic. Nové a pozoruhodné lišejníky v České republice. Preslia, Praha, **71**:289-336.

Pišút, I (1999) Kartierung der Verbreitung epiphytischer Flechten in der Slowakei (1970-1981). Bratislava, Botanický ústav SAV, 120 pp. [In Slovak with German abstract. An important publication, summarizing data from mapping of epiphytic lichens in Slovakia during 1970-1981; 97 maps show the distribution of 112 taxa.]

Pišút, I (1999) Nachträge zur Kenntnis der Flechten der Slowakei 13. *Zborn. Slov. Nár. Múz., Prír. Vedy* **45**:3-6 [in German with English abstract].

Pišút, I (1999) Two interesting lichens from Southeast Europe. *Biol., Sect. Bot.* **54**: 33-35.

Poëubayová, A, Orthová, V & Guttová, A (1999) Lichenes in National Park Slovenský raj. In *Zborník zo VII. Zjazdu Slov. Bot. Spoloën.* Hrabušice - *Podlesok*, p. 175-178 [in Slovak].

Šoltés, R, Lisická, E & Lackoviëová, A (1999) Bryophytes and lichens of selected protected areas of Slovakia. Bratislava, 22 pp. [a field guide prepared for the BLAM meeting].

Eva Lisická & Anna Lackoviëová

LICHENOLOGY IN INDIA (1997 - 2000)

In the new millennium all the 3 major centres of Indian Lichenology are engaged in a big research project entitled "All India Co-ordinated Project in Taxonomy Capacity Building of Lower Plants (Lichens)". The status of lichen diversity in the major Phytogeographical areas of India, ie Western Ghats (S. India), Western and Eastern Himalayas will be explored under this project by Agarkar Research Institute, Pune, National Botanical Research Institute, Lucknow, Botanical Survey of India, Sikkim and Shillong respectively.

At National Botanical Research Institute (NBRI), Lucknow, the revision of lichen genus *Lecanora* which was initiated in 1996 has been completed. It resulted in 8 saxicolous and 19 corticolous species of *Lecanora subfusca* group, 9 species of *Lecanora placodium* group, 3 species of *Lecanora pallida* group and 8 species of *Lecanora* having dark hypothecium. Out of 47 species, 24 species are new records for Indian subcontinent. Also a new subspecies (*L. campestris* subsp. *gulmargia* Upreti) and new variety (*L. cinereofusca* var. *himalayensis* Upreti) are described.

During a scientific exchange programme between Indian National Science Academy, India and Deutsche Forschungsgemeinschaft (DFG), Germany, the institution was benefited by the visit of Indian Lichenologist to various German institutes, particularly Dr T Lumbsch and Prof G B Geige at Botanishes Institut und Botanisher Garten Universitasstr.5, Essen, regarding chemistry of *Pertusaria* and *Lecanora*. Prof Hertel, Munchen, Prof H J Sipman, Berlin and others provided immense knowledge of modern lichenological techniques and literature.

The nomenclatural notes on the pyrenocarpous lichens known form this sub-continent were updated following the recent literature by Aptroot and R C Harris.

In an attempt to survey Indian reserved forests for their lichen diversity, Corbet Tiger Reserve (CTR) in the foot hills of Himalayas and Great Himalayan National Park (GHNP), Himachal Pradesh are being explored. CTR happens to be oldest National Park of the Indian sub-continent established during 1936. The Flora was represented by 69 species of 21 lichen genera. It is interesting to note that the *Syzygium cumunii* trees in moist places were dominated by crustose lichens. The GHNP was explored under Forestry Research Education and Extension programme and a total of about 192 species belonging to 65 genera were recorded from the area. Areas having higher diversity of lichen species were recommended as "Lichen sites" for conservation of lichens in the Park.

In an exercise to enumerate plant resources of Uttar Pradesh State, about 470 species have been recorded with details of their family, full citation, synonym, vernacular name habit and salient features, habitat, phytogeographical distribution, status and economic use.

Inventories of epiphytic lichens on different species of *Quercus* and *Pinus* trees of Kumaon Himalayas are now completed these can be utilized in conducting biomonitoring studies in the area in future.

As continuation of collaborative research between NBRI and Indian Institute of Science (IISc), Bangalore, lichen flora of Chopta-Tunganath, Garhwal Himalayas was studied, that revealed the presence of 92 species of lichens from the area, in spite of its frequent use as a tourist place.

In India pollution monitoring studies with higher plants are available, but such studies utilizing lichens are by and large neglected. For the first time in India accumulation of lead by lichens growing in and around an urban area has been studied.

In honour of eminent Lichenologist of India, Dr D D Awasthi, a book entitled "Biology of Lichens" including contributory research papers, (editors K G Mukherjee, B P Chamula, D K Upreti and R K Padya) is published by Aravali Books International, New Delhi, India.

Recently a collaborative project between Russian and Indian Lichenologist has been initiated to study and compare the lichen taxonomy and biodiversity of certain regions of Russian arctic and high mountain areas of India (Himalayas).

D K Upreti & S Nayaka

LITERATURE PERTAINING TO BRITISH LICHENS - 28

Lichenologist **32**(2) was published on 3 March 2000, **32**(3) on 5 May 2000, and **32**(4) on 17 June 2000.

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.

APTROOT, A, van HERK, CM, SPARRIUS, L B & van den BOOM, P P G 1999. Checklist van de Nederlandse lichenen en lichenicole fungi. *Buxbaumiella* **50:** 1-64. This new checklist includes data on rarity and Red List status for each species. It also provides vernacular names for many species, a list of synonyms and a list of dubious or wrong reports (with explanations). The lichen flora of The Netherlands has much in common with that of the lowland counties of England, and this checklist should be of especial interest to British lichenologists. The list (and some other papers and news) is available through the website: http://www.lichens.myweb.nl/

CLEMONS, L 2000. In "Reports of outdoor meetings 1999". *Bull. Kent Field Club* **45:** 14-38: Wares Farm, Linton (pp 17-18).

COPPINS, B J 2000. Red Moss Balerno - lichens. *J. Edinburgh Nat. Hist. Soc.* **1999:** 46-47. Report of a local excursion, during which *Hypogymnia farinacea* was re-found at its only known location in southern Scotland.

CZARNOTA, P & COPPINS B J 2000. A new species of *Agonimia* and some interesting lichens from Gorce Mts (Western Beskidy Mts) new to Poland. *Graphis Scripta* **11:** 56-60. Includes description of the new species *Agonimia repleta* Czarnota & Coppins from Poland and Ukraine. [This species is now known to occur in Wales (A Orange pers. comm.) and Somerset. Its perithecia are like those of *A. tristicula*, but it has 8-spored asci, and smaller, more adpressed squamules.]

DIEDERICH, P & WEDIN, M 2000. The species of *Hemigrapha* (lichenicolous Ascomycetes, Dothideales) on Peltigerales. *Nordic J. Bot.* **20:** 203-214. The new species **Hemigrapha atlantica* Diederich & Wedin is described from material from Morvern in Westerness, with additional collections cited from the Isle of Skye, West Galway and the Azores. Its host is the cyanobacterial morph of *Sticta canariensis* ('*S. dufourii*'). *H. atlantica* was previously called *H. astericus*, which is a parasite of

Peltigera species, and is not correctly reported from the British Isles. [See New, Rare or Interesting in this *Bulletin* for additional records.]

FOX, H 1999. Lichens of three mine sites in Co. Wicklow, Ireland. *Proc. Roy. Ir. Acad.* **99B** (1): 67-71. Preliminary observations at three mine sites revealed 119 lichens, suggesting that old mine sites are of high potential lichenological interest in Ireland, where they have hitherto been little studied.

HALONEN, P 2000. *Usnea pacifica*, sp. nov. and *U. wasmuthii* (lichenized ascomycetes) in Pacific North America. *Bryologist* **103:** 38-43. Includes a key and useful notes on *U. wasmuthii* and similar species. [The chemical strain 1 (usnic and barbatic acid, without salazinic acid) of *U. wasmuthii* is said not to be reported from the British Isles, but it is in fact quite common here.]

HITCH, C & LAMBLEY, P 1996. The lichens of Breckland and the effects of afforestation. In RATCLIFFE, P & CLARIDGE, J (eds) *Thetford Forest Park: The Ecology of a Pine Forest.* [Forestry Commission Technical Paper No. 13.] pp 58-66. A general overview of the lichens of Breckland is followed by a more detailed account of the terricolous communities of the calcareous ('grassland A') and acid grasslands. Relevés from Lakenheath Warren made in 1973 and 1991 exemplify the decline in the important lichen communities, which include rare species such as *Buellia asterella*, *Fulgensia fulgens* and *Squamarina lentigera*. The reasons for this decline appears to be lack of grazing, combined with other factors, such as increased nutrient (mainly nitrogen) input, and increased shelter and litter deposition from planted and self-sown pines.

HENDERSON, A 2000. Yorkshire Naturalists' Union excursions in 1999 ['1994']. *The Naturalist* **125:** 81-90. Lichenology: Barden and Barden Moor (VC64) (p 85); Marfield Quarry (VC65) (pp 87-88).

MARBACH, B 2000. Corticole und lignicole Arten der Flechtengattung *Buellia* sensu lato in den Subtropen und Tropen. *Bibliotheca Lichenologia* **74:** 1-384. This controversial monograph introduces nine new genera into the *Buellia* s. lat. group, but none of these new genera is so far attributable to any species occurring in the British Isles. However, the new combination *Hafellia disciformis* (Fr.) Marbach & H. Mayrhofer (syn. *Buellia disciformis*) is made. [The genus *Hafellia* is gaining widespread acceptance, and *Buellia leptoclinoides* has already been included in it. Other British taxa that belong in this group are *B. arnoldii* and *B. sanguinolenta.* However, is not advisable to take up this generic name until the typification of *Buellia* s. str. is settled - this is currently being considered by the IAPT Committee for Fungi). *Buellia griseovirens* is said to be a younger synonym of *Aplotomma turgida* [sic] (A. Massal.) A. Massal. (= *Buellia turgida* (A. Massal.) Lettau). [This cannot be so as the

basionym of *Buellia griseovirens*, *Variolaria griseovirens* Turner & Borrer, dates from 1812, whereas that of *A. turgidum*, *Diplotomma turgidum* A. Massal., was not published until 1856.]

PALMER, K 2000. Lichen report 1999. *Bull. Kent Field Club* **45:** 61-64. Includes further reports of increasing incidence of several lichens, such as *Parmelia perlata* and *P. soredians*, and the reappearance in Kent after a couple of decades of *Physcia aipolia*.

PALMER, K 2000. In 'Reports of outdoor meetings 1999'. *Bull. Kent Field Club* **45:** 14-38: Postling churchyard (pp 14-15): Preston (p 20).

PITT, J 2000. In 'Reports of outdoor meetings 1999'. *Bull. Kent Field Club* **45:** 14-38: Torry Hill (p 26).

PLATT, J L & SPATAFORA, J W 2000. Evolutionary relationships of nonsexual lichenized fungi: molecular phylogenetic hypotheses for the genera *Siphula* and *Thamnolia* from SSU and LSU rDNA. *Mycologia* **92:** 475-487. Molecular studies place *Siphula* and *Thamnolia* in the *Icmadophilaceae*, along with *Dibaeis* and *Icmadophila*.

PORLEY, R, LAMBLEY, P & JEFFERSON, R 2000. Managing the low life. *Enact* **8**(1): 7-9. The importance of unimproved lowland grasslands as a habitat for lichens and bryophytes is explained, and management issues are discussed.

SEAWARD, M R D & HENDERSON, A 2000. Yorkshire Naturalists' Union excursions in 1999 ['1994']. *The Naturalist* **125:** 81-90. Lichenology: Kilnsea Beacon Lagoons Nature Reserve (VC61) (pp 88-89).

TIBELL, L & WEDIN, M 2000. Mycocaliciales, a new order for nonlichenized calicioid fungi. *Mycologia* **92:** 577-581. The *Mycocaliciaceae* (*Chaenothecopsis*, *Mycocalicium*, *Phaeocalicium* and *Stenocybe*) and the *Sphinctrinaceae* (*Sphinctrina*) are united in the new order *Mycocaliciales* Tibell & Wedin, which is shown by sequence data from the SSU of rDNA to be only distantly related to the *Caliciaceae* in the *Lecanorales*.

WATLING, M 2000. In 'Reports of outdoor meetings 1999'. *Bull. Kent Field Club* **45:** 14-38: Samphire Hoe (pp 15-17).

Brian Coppins

BRITISH ISLES LIST OF LICHENS

5th October 2000 update to list of 28th May 1999

In adition to this update a fully corrected and inclusive list has been published on the BLS web site, (http://www.argonet.co.uk/users/jmgray/), both as text and as a CSV file.

ADD

1768 *Porina isid*
1768 *Porina isidiata*

1871 *Verr elaeina* ##
1871 *Verrucaria elaeina* ##

1989 *Parmelia ulop* ##
1989 *Parmelia ulophylla* ##

1998 *Rinomnia mniaraeiza*
1998 *Rinodina mniaraea* var *mniaraeiza*

2293 *Mica xant*
2293 *Micarea xanthonica*

2295 *Endococ brac* #
2295 *Endococcus brachysporus* #

2296 *Endococ macr* #
2296 *Endococcus macrosporus* #

2297 *Endococ verr* #
2297 *Endococcus verrucisporus* #

2298 *Pronectria pert* #
2298 *Pronectria pertusariicola* #

DELETE

2121 *Mycobilimbia endo* # - *Mycobilimbia endocarpicola* #

CHANGES

171 *Baci vezd - Bacidia vezdae*
NOW
171 *Fell vezd - Fellhanera vezdae*

689 *Clio tene - Cliostomum tenera*
NOW
689 *Clio tene - Cliostomum tenerum*

1488 *Verr elae - Verrucaria elaeomelaena*
NOW
1488 *Verr elaeomel - Verrucaria elaeomelaena*

1829 *Baci myrt - Bacidia myrtillicola*
NOW
1829 *Fell myrt - Fellhanera myrtillicola*

2047 *Dact mult* # - *Dactylospora multispora* #
NOW
2047 *Dact micr* # - *Dactylospora microspora* #

2206 *Skyttea elas* # - *Skyttea elaschistophora* #
NOW
2206 *Skyttea elac* # - *Skyttea elachistophora*

J M Gray

LICHENS: PUBLICATIONS AND PROJECTS

New books on lichens

The year 2000 continues the welcome trend of many new publications dealing with lichens.

- Frank Dobson: ***Lichens: An Illustrated Guide to British and Irish Species*** **(Richmond Press).** The new fourth edition with colour photographs is now in the final stages of production and should be available before Christmas. You can whisper your request to Father Christmas now!
- Frank Dobson: ***Flora and Fauna of Wimbledon Common***. This contains a lichen section by Frank. The publication should be available through booksellers.
- William Purvis: ***Lichens***. This well-illustrated publication has just been released and is now for sale at the Natural History Museum (£9.95) or from the web:
  http://www.nhm.ac.uk/services/publishing/pubrpli.html
- Tom Chester has contributed a chapter on churchyard lichens in ***Milton Keynes More than Concrete Cows***.
- Tony Fletcher has almost completed the **management handbook** from the **Bangor meeting** and Pat Wolseley will be producing **two handbooks** from the recent very successful **LIMON** conference held at Orielton, Pembs.
- Alan Orange and Peter James are in the last stages of the revision of ***Microchemical Tests*** which will replace the earlier *Bulletin* Supplement.

Factsheets/Leaflets: Committee Members are working with authors of fact sheets for which Ceri Leigh is designing the layout. The leaflets in progress include:

- ***Lichens of Ancient Woodlands*** by Francis Rose.
- ***Eutrophication and Lichens*** by Barbara Benfield.
- ***Farming and Lichen Conservation*** by Humphrey Bowen.

Other titles in the series will include ***Lichen Dyes*** by David Hill and a literature list for ***Lichens and Air Pollution*** by Albert Henderson.

- ***Lichen References*** by William Purvis will be available on the BLS Website. It is the intention of the Committee to make the other factsheets available on the Internet, as they are completed.

If you have any suggestions for further leaflets and/or would like to write one yourself, please contact Barbara Hilton at the address below.

Projects:

- Pat Wolseley's **Twig Project** (on environmental monitoring), which was launched at the end of the LIMON conference, will tie in with general monitoring in Pembrokeshire and is to be on the Natural History Museum Website.
- Linda Davies is developing a project for primary school children in Lewisham on **air pollution and lichens**.

Exhibitions: Amanda Waterfield provided a **lichen exhibit** for the BLS at the Cambridge Natural History Society in June, attracting the interest of children.

For the Education and Promotions Committee (Beauregard, 5 Alscott Gardens, Alverdiscott, BARNSTAPLE, Devon, EX31 3PT
Telephone/fax: 01271 858668; e-mail: bphilton@ecplipse.co.uk).

Barbara Hilton

SET OF THE *LICHENOLOGIST* FOR SALE

The set of *Lichenologist* advertised in the last Bulletin for £300 did not attract buyers so is still therefore on offer at £300. Offers should be made to O L Gilbert, 42 Tom Lane, Sheffield S10 3PB, UK (E-mail: O.L.Gilbert@sheffield.ac.uk). Monies raised from this B W Fox bequest to the BLS will go to Society funds. The purchaser will be expected to collect the set from Sheffield or pay for its postage.

LICHENOLOGIST FOR SALE - 2

An unbound set of *The Lichenologist*, 1965 - 1987 (vols **3** - **19**; lacks **13** 2 and 3) is offered for the highest realistic bid. Packing and shipping will be extra. Bids should be made preferably by e-mail, to J C Krug, Botany Department, University of Toronto, 25, Willcocks Street, Toronto, Ontario, Canada, M5S 3B2. E-mail j.krug@utoronto.ca. Bids should arrive no later than April 1, 2001.

CATALOGUE OF UNPUBLISHED LICHEN SURVEYS AND RELATED WORKS ON THE BLS WEBSITE

A considerable amount of lichen survey and monitoring work is carried out, but the documentation is rarely published, except perhaps in a very summarized form. The original documentation sometimes contains extensive detail in the form of raw data, such as species lists, site descriptions, individual tree descriptions, quadrat data and photographs, as well as site assessments, application of indices of ecological continuity and management recommendations. These are invaluable for comparisons with other similar sites, and for lichenologists re-visiting the same sites in later years. The documents may also contain detailed information on the occurrence and ecology of 'priority species' (e.g. Red Data and Biodiversity Action Plan species), and some have been prepared especially for such purposes (so-called 'Species Dossiers').

Whereas published papers are catalogued in bibliographies published in print or on web sites, there is no such facility for unpublished reports. However, many reports and other manuscripts on British lichens prepared up until 1975 were catalogued by D.L. Hawksworth and M.R.D. Seaward in their *Lichenology in the British Isles 1568-1975*, published by Richmond Publishing in 1977. Unfortunately, since then there has been no centralized register of unpublished reports, and there is a great danger that many of these invaluable documents will be effectively 'lost', even if they physically survive in filing cabinets or archives! This problem has been raised many times at meetings of the BLS Conservation Committee.

In order to begin a redress of this problem, for the benefit of lichenologists and conservation bodies, we have prepared an annotated list of our own unpublished reports for various governmental and non-governmental agencies. This can now be read on the BLS Website: http://www.argonet.co.uk/users/jmgray/survey.htm. Other lichenologists working in Britain and Ireland are invited to add to this list, so that a near comprehensive catalogue of such works will be available to all. In the future it will probably be better to incorporate information about these reports into a database, but until resources are available to accomplish this, the BLS website offers an interim solution.

To add to the list, please prepare your entries in the same format and send on diskette to Dr Brian Coppins, Royal Botanic Garden Edinburgh, Edinburgh, EH3 5LR, or by attached document to B.Coppins@rbge.org.uk.

Many of the listed reports have been prepared under contract involving clauses of confidentiality or copyright. Therefore, access to these reports must be made through the commissioning bodies.

Brian and Sandy Coppins

OVERSEAS MEMBERS' TRAVEL FUND

The BLS is instituting a travel fund for overseas members. The aim is to help and encourage overseas members of the Society to visit the UK primarily to collaborate with UK members in laboratory and/or field research; requests to support visits to use facilities such as herbaria will also be considered, in which case a UK member need not necessarily be involved. Visits to attend conferences will not be supported. The total annual sum available for such awards is £1,000 and the scheme will run for two years in the first instance, after which time it will be reviewed. Council considers it preferable that a small number of people are funded to a significant level, if not in full, rather than awarding small sums to a large number of respondents. Unsuccessful applicants can apply again in a subsequent year, and for the same project, unless informed otherwise when the result of the application is announced. Recipients of grants should provide a report on the work undertaken suitable for publication in the *Bulletin* within one year of the visit and the BLS should be acknowledged for their financial contribution in any publications that should result from the work. A copy of any such publication should be lodged with the Society.

Applications should be on **one side of A4 paper** (there are no special forms) stating in the following order: applicant's name, position, full postal and e-mail addresses, fax number, the approximate dates of the visit, details of the travel costs that will be incurred, and the name of the UK collaborator (or person in charge of the herbarium or other facility). A case for support should be made in about half a page (less than 400 words) and should clearly state the aims and objectives of the project, how it will benefit from the collaboration and the expected output. Grants will be awarded partly on the basis of need and applicants should explain what efforts they have made (or will be making) to secure funding from other sources. Applicants should arrange for the UK collaborator to provide a letter of support: this should be sent directly to the Society independently of the application.

Please note that the primary objective of this fund is to provide money for travel; funds permitting, it will be our aim to support travel costs in full. If there are sufficient funds, a contribution to accommodation costs will be made which will not exceed £10 per day or £200 in total. Contributions to subsistence will not normally be made.

The closing date for applications for visits during 2001 is 10 February 2001. All correspondence (ie applications, letters of support and submission of subsequent reports and reprints) should be addressed to The Secretary. Successful applicants will receive their grant on arrival at their host institution.

NEW, RARE AND INTERESTING BRITISH LICHEN AND LICHENICOLOUS FUNGUS RECORDS

Contributions to this section are always welcome. Please submit entries to Chris Hitch, Orchella Lodge, 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.

Abrothallus caerulescens Kotte (1909): on thallus of *Parmelia (Xanthoparmelia) conspersa*, on west-facing basaltic rocks, Taprain Law, East Linton, VC 82, East Lothian, GR 36/57-74-, alt 130-150 m, February 1998 and May 1999. Sometimes regarded as a synonym of *A. bertianus*, but does not have the I+ blue vegetative hyphae of that species. New to the British Isles.

B J Coppins

Absconditella delutula: on damp siliceous stones embedded in north-facing clay-bank above woodland track, Capel Bangor, VC 46, Cardiganshire, GR 22/65-79-, alt 40 m, March 2000. Confirmed by A Orange. New to Cardiganshire.

S P Chambers

Acarospora anomala H. Magn (1924): on wooden fence rails (erected 1970s and treated with copper chrome arsenic), near Brigg, VC 54, North Lincolnshire, GR 54/00-08-, March 1995, collected by J Margetts. Confirmed by M Golubkova and O W Purvis. Site re-examined by M R D Seaward in March 2000. The taxon is extensive, on upper two rails over more than 250 m, associated with *Candelariella vitellina*, *Lecanora polytropa* and *Scoliciosporum umbrinum*. Thallus areolate. Squamules imbricate, irregular to lobulate, chestnut brown or darker, with a black rim and underside. Ascocarps impressed, margined, concave, with a smooth or roughened disc, 0.2-0.4 mm. Paraphyses never more than 2 μm at the base, with tips 3-5 μm. Spores 3.4 x 1.5 μm, ellipsoid to cylindrical. It shows some similarity to *A. complanata*. Northern Europe and French Alps. New to the British Isles.

M R D Seaward

Acarospora impressula: andesitic boulder at edge of woodland. Hethpool, VC 68, North Northumberland, GR 36/90-28-, 150 m. February 2000. New to Northumberland.

D E McCutcheon*

Agonimia repleta Czarnota & Coppins (2000): on the shaded upperside of *Fraxinus* leading heavily over an old leat channel in wet willow carr, Withybeds and Wentes meadow (Radnorshire Wildlife Trust Reserve), Presteigne, VC 43, Radnorshire, GR 32/31-64-, alt 150 m, August 1998. Determined by A Orange. Confirmed by P Diederich. This newly described species has perithecia with a minutely roughened-plicate upper part, like *A. tristicula*, but with smaller (18 per ascus) spores 20-40 x 12-20 μm. The perithecial surface in *A. allobata* is entirely smooth and typically has a minute pale pink-white ring around the ostiole, lacking in *A. repleta*. New to the British Isles.

S P Chambers

Anaptychia ciliaris subsp. *mamillata*: growing with *Anaptychia runcinata*, South Light Rocks, Fair Isle, VC 112, Shetland, GR 410/19-69-, N J Riddiford, March 2000, confirmed by D H Dalby. This identification settles the status of Ursula Duncan's 1963 record of *Anaptychia ciliaris* (without subspecies). Previously it had been assumed to relate to subsp. *mamillata*, but this was impossible to confirm, because she left no specimen in her personal lichen herbarium (now in E), and no specimen of this taxon from Fair Isle has been located in any other collection.

D H Dalby

Arctomia delicatula: on *Polychidium muscicola* on large triple-trunked *Fraxinus* in east-facing, coastal woodland, just south of Corragorten, Ardura, Mull, VC 103, Mid Ebudes, GR 17/69-29-, alt 20 m, May 2000.

B J & A M Coppins

Arthonia anombrophila: on the dry, well-lit, west side of an old *Quercus* trunk, Ynyshir, Eglwys Fach, VC 46, Cardiganshire, GR 22/68-96-, alt 10 m, April 2000. Confirmed by A Orange.

S P Chambers

Arthonia cinnabarina: abundant on one *Corylus* in wooded stream valley. College Valley, VC 68, North Northumberland, GR 36/89-25-, February 2000. Second modern record for Northumberland.

D A McCutcheon*

Arthonia elegans: found in seven woodlands in the Northumberland National Park - six times on *Corylus* and once on *Alnus*, VC 67, South Northumberland, GRs 35/7--6--(1), 35/8--7--(1), 35/8--8--(3), 35/8--9--(1) and 36/8--0--(1). January to February 2000. New to Northumberland.

D E McCutcheon*

Arthonia endlicheri: on calcareous Silurian siltstone underhangs in wooded gully, Coed Aberedw, VC 43, Radnorshire, GR 32/07-46-, alt 160 m, May 1999. Confirmed by A Orange. New to Radnorshire.

S P Chambers

Arthonia excipienda: on *Corylus* in hazelwood on east-facing slope, east of Treshnish Farm, Treshnish, Mull, VC 103, Mid Ebudes, GR 17/35-48-, alt 60-80 m, May 2000. New to Mull.

B J & A M Coppins

Arthothelium macounii: on *Corylus* in hazelwood (i) on east-facing slope, east of Treshnish Farm, Treshnish, Mull, VC 103 Mid Ebudes, GR 17/35-48-, alt 60-80 m, May 2000; (ii) on *Corylus*, Allt Hostarie, Kilninian, Mull, VC 103 Mid Ebudes, GR 17/39-45-, alt 10-50 m, May 2000; (iii) between Penmore House and Croig Pier, Croig, Mull, GR 17/50-53-, alt 30 m, May 2000. New to Mull.

B J & A M Coppins

Arthothelium ruanum: (i) on *Corylus* in hazelwood, Leob Croft, Ross of Mull, Mull, VC 103, Mid Ebudes, GR 17/40-23-, Alt 20-45 m, May 2000; (ii) on *Corylus* by small stream in west-facing hazelwood below cliffs, Gribun, Mullm VC 103, Mid Ebudes, GR 17/45-33-, alt 60-100 m, May 2000. New to Mull, and most northerly British records.

B J & A M Coppins

Arthothelium norvegicum: on *Corylus*, woodland south of Torr Fada, Knockvologan, Ross of Mull, Mull, VC 103, Mid Ebudes, VC 17/32-18-, May 2000. New to Mull, and the first record on hazel.

B J & A M Coppins

Aspicilia recedens: on low outcrop of basaltic rock in grassland, Na Gurrubain, Eigg, VC 104, North Ebudes, GR 17/48-84-, alt 10 m, May 2000. Second Scottish record.

B J Coppins

Biatora sphaeroides: on rocks under trees, east side of River Isla, Den of Airlie NNR, VC 90, Angus, GR 37/29-51-, alt 90 m, October 1999.

B J & A M Coppins

Buellia badia: in tiny quantity (seen once) investing *Parmelia conspersa* on steeply sloping, well-lit, southwest facing, volcanic rocks of Ordovician basalt-andesite, Llanelwedd Rocks, near Builth Wells, VC 43, Radnorshire, GR 32/04-52-, alt 210 m, July 2000. Confirmed by C Scheidegger. New to Wales.

S P Chambers

Buellia erubescens: on flaking bark of old *Sorbus*, Redesdale, VC 67, South Northumberland, GR 35/80-99-, February 2000. Confirmed by B J Coppins. New to Northumberland.

D E McCutcheon*

Byssloma marginatum: a few little fertile patches on the mossy trunk of an ancient *Quercus* in old-woodland ravine, Cwm Einion, VC 46, Cardiganshire, GR 22/69-94-, alt 70 m, April 2000. Confirmed by A Orange. First fertile Cardiganshire gathering.

S P Chambers

Calicium lenticulare: on lignum of large, dead *Quercus*, in woodland on south side of Lussa River, An t-Sleaghach, Ardura, Mull, VC 103, Mid Ebudes, GR 17/67-30-, alt 30 m, May 2000. New to Mull.

B J & A M Coppins

Caloplaca obscurella: fertile on old *Alnus* near stream, Grassless Burn Wood, VC 67, South Northumberland, GR 35/95-97-, January 2000. Only the third record for Northumberland and very rarely found fruiting.

D E McCutcheon*

Chrysothrix chrysopthalama: on lignum of large, *Quercus* pollard, at edge of woodland on south side of Lussa River, An t-Sleaghach, Ardura, Mull, VC 103, Mid Ebudes, GR 17/67-30-, alt 30 m, May 2000. New to Mull.

B J & A M Coppins

Chrysothrix flavovirens: on dry sides of living and dead *Quercus*, Billingham, VC 67, South Northumberland, GR 35/80-83-, and 35/81-84-, Jan/Feb 2000. New to Northumberland.

D E McCutcheon

Cladonia caespiticia: on rotting gate-post at entrance to the kitchen garden, The Lodge, Eigg, VC 104, North Ebudes, GR 17/47-84-, alt 40 m, May 2000. An unusual niche for this species.

B J Coppins

Cladonia coccifera: in short grass lowland heath adjacent to open *Betula* woodland, Swanholme Nature Reserve (within the boundary of Lincoln), VC 53, South Lincolnshire, GR 43/94-68-, August 1998. Confirmed by T Ahti as s.str taxon which appears to be much less common than *C. diversa* in eastern counties of England.

M R D Seaward

Cladonia conista A. Evans: on turf among low outcropping basaltic boulders, on north-west side of Traprain Law, East Linton, VC 82, East Lothian, GR 36/57-74-, alt 150 m, August 1996. New to Scotland. Has the appearance of *C. humilis*, but reacts K- or K+ dirty brownish (not a clear pale yellow), and contains bourgeanic and fumarprotocetraric acids by TLC. It is sometimes considered a chemical variety of the latter, as *C. humilis* var, *bourgeanica*, A. W. Archer (1989); in *Muelleria* **7**: 1-5. See also Alan Orange's key to the *C. chlorophaea* group in *BLS Bulletin* **70**: 36-42.

B J & A M Coppins

Cladonia cyathomorpha: on colliery spoil heap, 1.5 km east of Carcroft, VC 63, South Yorkshire, GR 44/55-09-, March 2000. Determined by T Ahti.

M R D Seaward

Cladonia strepsilis: frequent over a strip *c*100x15 m on one area of lichen-heath, Grogwynion river shingle, VC 46 Cardiganshire, GR 22/69-71-, alt 80 m, April 2000. A surprising find considering how well surveyed this site is. New to Cardiganshire.

S P Chambers & J M Simkin

Cladonia symphycarpia: on an exposed lowland sandy heath over limestone, Risby Warren, VC 54, North Lincolnshire, GR 44/92-13-, September 1998. Determined by T Ahti. Locally common, but the squamules overlooked in areas dominated by other *Cladonia* species, particularly *C. cervicornis* ssp. *cervicornis, C. foliacea* and *C. rangiformis*. Note spelling of this taxon, not *symphycarpa*!

M R D Seaward

Cresporhaphis wienkampii: on old *Salix*, on east side of River Tyne, East Linton, VC 82, East Lothian, GR 36/59-77-, alt 15 m, February 2000. Third British record. As with the previous Scottish collection, this also had associated *Trentepohlia* on the bark (see *Bulletin* **85**: 50).

B J Coppins

Enterographa sorediata: on dry underside of *Quercus* pollard, Doctor's Wood, Countisbury, VC 4, North Devon, GR 21/76-49-, alt *c*180 m, March 1997. New to Devon.

A M & B J Coppins

Fellhanera ochracea: abundantly fertile on bark of *Larix* trunk by small path, Heather Wood, near Gifford, VC 82, East Lothian, GR 36/51-68-, alt 125 m, March 2000. New to eastern Scotland.

B J Coppins

Halecania spodomela: on lip of a gently sloping boulder-slab below rock outcrops in coastal ffridd-hillside, Mynydd Coronwen, Cwm Einion, VC 46, Cardiganshire, GR 22/69-93-, alt 220 m, June 2000. New to Cardiganshire.

S P Chambers

Hemigrapha atlantica Diederich & Wedin (2000); see 'Literature Pertaining' in this *Bulletin*). Two additional records, both on the cyanobacterial morph of *Sticta canariensis* (*'S. dufourii'*), are: (i) on sheltered rocks near Rubh' an Oib, Fairy Isles SWT Reserve, upper end of Loch Sween, Knapdale, VC 101, Kintyre, GR 16/75-87-, March 1999; (ii) on cliff in coastal hazelwood, Poll nam Partan, Eigg, VC 104, North Ebudes, GR 17/48-84-, alt 30 m, May 2000.

B J & A M Coppins

Lecania chlorotiza: with *Porina borreri* on trunk of old *Ulmus glabra* in east-facing hazelwood above bay, Poll nam Partan, Eigg, VC 104, North Ebudes, GR 17/48-84-, alt 10 m, May 2000. Second record for Northwest Scotland.

B J Coppins

Lecania inundata: on mortar joints of old (?Georgian) brick wall, Caythorpe, VC 53, South Lincolnshire, GR 43/93-48-, June 1999. Determined by B J Coppins. New to Lincolnshire.

M R D Seaward

Lepraria rigidula: on moss bark and rock in shaded situations, in four woodlands in both VC 67, South Northumberland and VC 68, North Northumberland, GRs 35/8--7--(1), 35/8--8--(2), and 36/9--3--(1), January/February 2000.

D E McCutcheon*

Lobaria amplissima: on a huge old mossy *Fraxinus* standing in swampy valley woodland on the banks of the River Rede, VC 67, South Northumberland, GR 35/80-99-, February 2000. Two thalli present, one large approximately 30-40 centimetres in diameter and at least one smaller one 6-10 cm. The larger one at some 2.5 metres up the trunk and the smaller one much nearer the base. On the same tree healthy colonies of *Lobaria pulmonaria, Leptogium lichenoides* and *Peltigera collina* were growing on the moss which included extensive swards of *Zygodon rupestris* very rare at least in the North. An exciting find of a species last recorded in Northumberland in 1934 also a new 10 km square for all of this wonderful Lobarian association.

D E McCutcheon*

Lobaria pulmonaria: richly fertile on one ash tree in Northpark Copse, VC 10, Isle of Wight, GR 40/43-88-, March 2000. No evidence of apothecia when last examined in 1996.

C R Pope

Micarea hedlundii: on lignum of large, dead *Quercus*, in woodland on south side of Lussa River, An t-Sleaghach, Ardura, Mull, VC 103, Mid Ebudes, GR 17/67-30-, alt 30 m, May 2000. New to Mull,

B J & A M Coppins

Micarea myriocarpa: in dry shaded acidic rock underhang in river valley woodland, College Valley, GR 36/89-25-, February 2000. New to this vice county.

D E McCutcheon*

Microcalicium arenarium: on *Psilolechia lucida* (with *Trebouxia* photobiont) on dry rootlets exposed in overhung woodland track, in oakwood above reservoir, Cwm Rheidol, VC 46, Cardiganshire, GR 22/69-79-, alt 140 m, March 2000. Confirmed by A Orange. New to Cardiganshire.

S P Chambers

Mniacea jungermanniae: on the leafy liverwort *Cephalozia lunulifolia* amongst wet clay on stream bank, Grain Sike, VC 67, South Northumberland, GR 45/05-98-, February 2000. New to Northumberland.

D E McCutcheon*

Mycocalicium subtile: deep in fissure at base of large *Quercus* in old gorge woodland below Blackmoor Skirt, VC 67, South Northumberland, GR 35/81-89-, alt 225 m, January 2000. Confirmed by B J Coppins. New to Northumberland and probably the North of England.

D E McCutcheon

Mycomicrothelia atlantica: (i) on *Corylus* in hazelwood, Ardnacross, Ardura, Mull, VC 103, Mid Ebudes, GR 17/55-48-, alt 0-10 m, May 2000; (ii) below Leacan Dubha, Ardura, GR 17/68-29-, May 2000. New to Mull.

B J & A M Coppins

Nanostictis christiansenii: on *Lobaria pulmonaria* on *Malus*, near village hall, Eigg, VC 104, North Ebudes, GR 17/47-84-, alt 35 m, May 2000.

B J & A M Coppins

Nephroma laevigatum: on *Corylus* and on low branch of *Fraxinus*, close to north-facing cliff, on east side of River Isla, Den of Airlie NNR, VC 90, Angus, GR 37/29-51-, alt 90 m, October 1999. First modern record for Angus.

A M & B J Coppins

Opegrapha areniseda: on wooden posts in sands of sea-shore, Culbin Forest, VC 95, Moray, GR 28/98-63-, May 1999.

B J Coppins

Opegrapha sorediifera: on young *Acer pseudoplatanus* in policy woodland, Manse Wood, Eigg, VC 104, North Ebudes, GR 17/48-84-, alt 30 m, May 2000. Some thalli had abundant apothecia and scarcely any soralia, which were detected only after careful examination with a binocular microscope. The previous record of *O. viridis* from Eigg was probably based on such material, and the status of many, if not all, British records of this species comes into question.

B J Coppins

Pachyphiale carneola: on *Fraxinus* by path, east side of River Isla, south-east of Airlie Castle, Den of Airlie NNR, VC 90, Angus, GR 37/29-51-, alt 90 m, October 1999. New to Angus.

A M & B J Coppins

Pannaria mediterranea: on old *Quercus* pollard in parkland, on north side of River Isla, to west of boundary with Den of Airlie NNR, VC 90, Angus, GR 37/27-52-, alt 130 m, October 1999. New to Angus.

B J & A M Coppins

Parmelia robusta: five small (for this species) thalli, 8-11 cm diam, on a sheltered northeast-facing rock outcrop in humid ravine woodland, Cwm Clettwr, Tre'r-ddol, VC 46, Cardiganshire, GR 22/66-92-, Alt 90 m, May 2000. Third British record. In an almost identical situation to the Cwm Einion colony.

S P Chambers & H F Clow

Parmelia ulophylla. The following records are from specimens in E (all collected by B J Coppins): (i) on *Acer* by River Bourne, Plaxtol, VC 16, West Kent, GR 51/61-53-, 1967; (ii) on *Acer pseudoplatanus*, Firle Plantation, West Firle, VC 14, East Sussex, GR 51/47-06-, 1973; (iii) on *Ulmus* by bridleway, NW of Jevington Church, VC 14, East Sussex, GR 51/55-01-, 1973; (iv) on *Fraxinus*, Den of Airlie NNR, VC 90, Angus, GR 37/29-52-, October 1999; (v) on *Salix*, Ninewar Wood, 3 km east of East Linton, VC 82, East Lothian, GR 36/61-77-, alt 40 m, November 1999.

B J Coppins

Parmeliella testacea: on branch of *Ulmus glabra* in ravine woodland, Allt Hostarie, Kilninian, Mull, VC 103, Mid Ebudes, GR 17/39-45-, alt 20 m, May 2000. With apothecia, which are very rare in this species.

B J & A M Coppins

Parmeliella triptophylla: on a single *Fraxinus* on west bank of River Isla, just south of mouth of Auchrannie Burn, Den of Airlie NNR, VC 89, East Perthshire, GR 37/22-52-, alt 90 m, October 1999.

A M & B J Coppins

Parmentaria chilensis: locally abundant on about 50 *Corylus* stools, ravine of Abhainn a' Choire, Ardura, Mull, VC 103, Mid Ebudes, GR 17/67-29-, alt 70-90 m, May 2000. Second Scottish record.

B J & A M Coppins

Phaeographis dendritica: on *Corylus* on bank of streamside woodland northeast of Wark, VC 67, South Northumberland, GR 35/80-79-, February 2000. New to Northumberland.

D E McCutcheon*

Polyblastia cupularis: on broken stones in streamlet, west of Llyn Gafr, Cadair Idris, VC 48, Merionethshire, GR 23/70-14-, alt 450 m, June 2000. New to Merionethshire.

S P Chambers & J B Grasse

Polyblastia philaea Zschacke (1933): on north-facing, damp, narrow ledges of basic soil on coastal slope above beach, Traethymwnt, Mwnt, near Cardigan, VC 46, Cardiganshire, GR 22/19-51-, alt 15 m, August 1997. This terricolous *Polyblastia* has colourless muriform spores, 8 per ascus, like *Agonimia (Polyblastia) gelatinosa*, but with much larger and rounded perithecia, 0.5-0.7(-0.75) mm diam, flattened at the top, almost completely immersed in a distinct, smooth to uneven-verrucose, grey-green

thallus. It bears a resemblance to *Thrombium epigaeum* in the field but has more prominent and crowded perithecia. Confirmed by P Diederich. New to the British Isles.

S P Chambers

Polyblastia wheldonii: over moribund bryophyte mats on north-facing basic volcanic rocks, west of Llyn Gafr, Cadair Idris, VC 48, Merionethshire, GR 22/70-14-, alt 450 m, June 2000. Confirmed by P Diederich. New to Merionethshire.

S P Chambers & J B Grasse

Pronectria echinulata Lowen (1999): on *Physcia aipolia* thalli, on decaying twigs, among grass tussocks under an isolated *Fraxinus* in a roadside hedge, Calgary, Mull, VC 103, Mid Ebudes, GR 17/37-51-, September 1999. This recently described species with pink perithecia immersed in bleached patches, has been described see Rossman *et al* 1999, cited by Coppins, Literature Pertaining 27, *Bulletin* 86, p65 has ornamented ascospores. Now also known from three collections in West Ireland (North Tipperary also South Kerry and West Donegal, from areas with >1200 mm rainfall per annum and where the host is the dominant foliose species of Physciaceae on twigs of farmland trees. New to the British Isles.

M Cullen & H Fox

Pronectria pertusariicola Lowen (1999): patches on the host, on *Pertusaria hymenea* on damp corky bark flakes rotted by a corticolous *Mycena* sp., on *Acer pseudoplatanus* bole in tussocky pasture, Powerscourt Waterfall & Deerpark, VC H20, Wicklow, GR 32/19-12-, February 1999. This recently described species with pink perithecia immersed in circular bleached ash-white patches is included in Rossman's paper, see entry above. It is also known from Scotland It prefers *Fraxinus* and *Acer pseudoplatanus* boles in bright humid glades in old parkland. New to the British Isles.

H Fox

Rhizocarpon polycarpum: on a boulder surrounded by *Pteridium*, close to a stream, Blaenycwm, Cwymystwyth, VC 46, Cardiganshire, GR 22/82-75-, alt 310 m, July 2000. New vice county record.

S P Chambers

Rinodina fimbriata: an extensive patch over a low boulder 10 m off-shore in an upland oligotrophic lake, Llyn Eiddwen NNR, VC 46, Cardiganshire, GR 22/60-67, alt 300 m, July 2000. Confirmed by O L Gilbert. New to Wales.

S P Chambers

Rinodina pyrina: on wooden posts in sands of sea-shore, Culbin Forest, VC 95, Moray, GR 28/98-63-, May 1999.

B J Coppins

Sclerococcum normandinae Diederich & Etayo (1995): (i) on decaying *Pannaria rubiginosa*, *Capronia normandinae* and *Normandina pulchella* swards, over a rot hole on a hazel pole of a coppice stool, oceanic wood of Oskamull, Isle of Mull, VC 103, Mid Ebudes, GR 17/46-39-, September 1999, confirmed by P Diederich; (ii) on a sward of decaying *Degelia plumbea, Capronia normandinae* and *Normandina pulchella*, on gently sloping rotten poles with humus and faeces pellets from the gut of tree worm *Dendrodrilus rubidus*, in an oceanic hazel wood, Cathair Chomain, The Burren National Park, VC H9, Clare, GR 02/27-96-, January 2000. Black setose perithecia of *Capronia* occurred between the glossy olive brownish-grey aggregations of *Sclerococcum* conidia. Infections were visually distinctive, because the lead-grey host thalli became bleached to a pale tan colour. The best niche to check is rotten hazel poles with swards of *Pannariaceae* in oceanic hazel woods. New to the British Isles.

H Fox & M Cullen

Sticta sylvatica: on *Corylus*, close to north-facing cliff, on east side of River Isla, Den of Airlie NNR, VC 90, Angus, GR 37/29-51-, alt 90 m, October 1999. Last seen at Airlie (and in Angus) in 1946, where it was recorded by mouth of Melgam Water, by Ursula Duncan. It was not re-found there, but a good population is present on *Corylus* further downstream. Unfortunately we were not able to re-find *S. fuliginosa* and *S. limbata*, last recorded at Airlie by U K Duncan in 1960.

A M & B J Coppins

Stigmidium lecidellae Triebel, Cl. Roux & Le Coeur (1995): in apothecia of *Lecidella elaeochroma*, on *Corylus*, valley of Allt Tigh Néill, Torboll, Strath Carnaig, VC 107, East Sutherland, GR 28/74-98-, August 1999 [BLS field meeting]. For description and illustrations see Roux *et al.* in *Can. J. Bot.* **73**: 662-672, 1995. New to the British Isles.

B J & A M Coppins

Taeniolella beschiana Diederich (1991): on broken podetial scyphi of *Cladonia pocillum*, in short turf around a rock outcrop, in grey dune vegetation zone of sand dune system, Inchadoney Island, Clonakilty, VC H3, West Cork, GR 10/40-38-, July 1995. The dark bristle-like conidiophores arise from the medulla of the podetia. For further details see Alstrup (1993) *Graphis scripta* **5**: 61-62. Confirmed by P Diederich. New to the British Isles.

K Gaynor & H Fox

Tephromela grumosa: (i) on gritty Silurian sandstone outcrops, south southeast-facing, in moorland above Lyn Eiddwen, VC 46, Cardiganshire, GR 22/60-67-, alt 320 m, July 2000; (ii) on the vertical southeast side of an Eisteddfod standing stone, Aberystwyth Castle grounds, VC 46, Cardiganshire, GR 22/57-81-, alt 20 m, April 2000. New to Cardiganshire.

S P Chambers

Thelotrema lepadinum: on *Corylus* and young *Fraxinus*, on east side of River Isla, Den of Airlie NNR, VC 90, Angus, GR 37/29-51-, alt 90 m, October 1999. New to Angus.

A M & B J Coppins

Unguiculariopsis manriquei Etayo (1996): (i) on underside of moribund thalli of *Lobaria pulmonaria*: Ballachuan Hazelwood, Seil, VC 98, Argyll Main, GR 17/7--1--, March 2000; (ii) Ardnacross, Aros, Mull, VC 103, Mid Ebudes, GR 17/55-48-, May 2000. For description and illustrations see Etayo & Deiderich in *Bull. Soc. Nat. Luxemb.* **97**: 93-118, 1996. New to the British Isles.

B J & A M Coppins

Usnea esperantiana: (i) on *Prunus spinosa* at edge of hazelwood on east-facing slope above bay, Poll nam Partan, Eigg, VC 104, North Ebudes, GR 17/48-84-, alt 10-20 m, May 2000; (ii) on *Prunus spinosa* nearby at Druim Liurnais, Eigg, VC 104, North Ebudes, GR 17/48-84-, alt 15 m, May 2000. Usnic, salazinic and bourgeanic acids by TLC. New to Scotland.

B J & A M Coppins

Usnea fulvoreagens - New to Angus, for details see *Usnea glabrata*.

Usnea glabrata: abundant on *Prunus spinosa*, together with *U. fulvoreagens*, at edge of abandoned meadow, east side of River Isla, Den of Airlie NNR, VC 90, Angus, GR 37/29-52-, alt 100 m, October 1999. New to Angus.

A M & B J Coppins

Usnea hirta: on stunted *Pinus* on old sand dunes, Culbin Forest, VC 95, Morayshire, GR 28/99-63-, alt 10 m, May 1999. A few thalli had apothecia, which do not appear to have been previously reported for this species in Britain.

B J Coppins

Usnea wasmuthii: on *Corylus* in coastal hazelwood, Ardnacross, Mull, VC 103, Mid Ebudes, GR 17/55-48-, alt 10 m, May 2000. A second find of this species with apothecia (see *Bulletin* **86**: 56).

B J & A M Coppins

Zamenhofia rosei: over moribund *Frullania* on side of boulder, in ravine of Abhainn a'Choire, Ardura, Mull, VC 103, Mid Ebudes, GR 17/67-29-, alt 70-90 m, May 2000. The most northern European record.

B J & A M Coppins

* These records are published with the permission of the Northumberland National Park Authority. Anyone wishing to monitor these species must liaise with D E McCutcheon initially, who will pass on the request fo the National Park Authority.

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each £3.50

Lichen Photography by Dobson (1977).
(Photocopies of A4 sheets) £1.00

Lichen Society Postcards: Lichens in full colour in assorted packs of 16.
per pack £3.00
(Orders for more than five packs are available at a reduced rate.)

British Lichen Society Car Sticker
5 colour 4" diameter self-adhesive plastic each £1.50

Other Items

All the following items have the British Lichen Society logo in three colours - black outline, silver podetia and red apothecia.

Woven ties with below-knot motif of BLS logo.
Colours available: maroon, navy blue, brown, bottle green, black and charcoal £7.00

Sweatshirts with breast pocket size embroidered motif of BLS logo.
Light-grey, Navy-blue, Bottle-green, Red: £16.00
(Still a few of the old stock remaining at the old price of £15)

Sweaters, wool with breast pocket size embroidered motif of BLS logo.
One only royal blue XL V-neck (old stock) £10.00
As above but Acrylan.
Colours available: maroon, bottle-green and navy (various sizes) £14.00

T-shirts with screen-printed full chest motif of BLS logo encircled by the words 'British Lichen Society'. Please specify size and colour options.
Light-grey, Navy-blue, Bottle-green, Tangerine (One old stock Yellow - small). £10.00

Badges, embroidered from the same Jacquard as the breast pocket size motif on the sweaters and sweatshirts (blue or green background) £4.00

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

Notebooks, waterproof, overprinted with 'British Lichen Society' £3.50

Hand lenses
Gowlland x10 plastic lens - a useful spare or second lens, handy when taking a friend with you! £3.00
x10 glass lens in metal body, lens diam 18mm £8.50
Microtec x10 glass lens in metal body, lens diam 13mm £6.00
Japanese x20 achromatic glass lens in metal body, lens diam 14mm, plastic carrying case £20.00

When ordering items through the post, please allow a month for delivery, as many items have to be ordered specially, or in bulk.

Postage - please add the appropriate postage below (ties and badges are post free).

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

NEW MEMBERS BETWEEN 07/04/00 AND 25/09/00

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Zoll, Mrs V

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SUBMISSION DEADLINE

Please would intending contributors to the Summer 2001 issue of the *Bulletin* submit their copy to the Editor by 26 March 2001. It would be helpful, but by no means essential, for authors of longer articles prepared on a word processor to supply a copy on a 3.5" floppy disc, in addition to the hard copy. This can be MS.DOS, Word Perfect or any format from an Apple Mackintosh. Alternatively it can be sent by e-mail to plambley@aol.com, preferably in RTF.

NOTES

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REFEREES (Specialist)
O Breuss, *Catapyrenium, Placidiopsis*; P Clerc, *Usnea* (W Europe, Macaronesia, eastern N America); B J Coppins, *Arthonia, Bacidia, Micarea* only; A Fletcher, coastal lichens; A M Fryday, montane lichens, lichens of metal-rich soils; O L Gilbert, all terricolous lichens (excl *Catapyrenium, Cladonia*), montane lichens on basic rocks, flint and chalk pebbles; P W James, critical complexes (all genera); R Moberg, Physiaceae; A Orange, pyrenocarpous lichens; O W Purvis, lichens on metal-rich rocks; F Rose, critical woodland lichens (epiphytes only); C Scheidegger, *Buellia*; L Tibell, Caliciales, *s. lat.*; E Timdal, *Toninia, Psora* and *Hypocenomyce*; T Tønsberg, corticolous sterile crusts.

CONTENTS

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