

British Lichen Society Bulletin

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Edited by P W Lambley

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Cover art work *Cladonia cariosa* by Alan Orange

FRANCIS ROSE
29 September 1921 – 15 July 2006

It was January 1966, at the British Lichen Society's AGM that I, as a 16-year-old, fledgling, schoolboy lichenologist, was first introduced to Francis. Francis was also something of a fledgling when it came to lichenology, having been encouraged to take up their study some months earlier by Dougal Swinscow, a close friend of Francis since 1952 (Swinscow 1989: 209–220). As for myself, my introduction to lichens was from Alvin & Kershaw's *Observer's Book of Lichens*, the only introductory text to lichens available at that time, and which was extensively revised by Francis in 1977 and enlivened by added plates from Claire Dalby.

Francis took me under his wing, and I accompanied him on many weekends and vacations to parkland and woodland sites, and the occasional churchyard, in Kent & E Sussex, and then further afield. He then lived at East Malling, only a few miles from my home in Plaxtol, and would pick me up, and sometimes also two other young, Kentish lichenologists: Jack Showell and my schoolmate Allan Pentecost. We learned together our lichen ID skills, from time to time getting a boost when we were joined in the field by such expert lichenologists as Dougal Swinscow and Peter James, and on most memorable occasions by overseas 'gods', Prof. Rolf Santesson and Prof. Jan Barkman. ID skills apart, what Francis did for me, and for many others, was open my eyes to the landscape around us – its vegetation, geology, geomorphology, and of man's influences on landscape and vegetation - from prehistoric times to the present. The study of lichens had been long-neglected, and they were a fascinating subject of study in their own right. However, Francis, more than anyone, showed how valuable they could be as environmental indicators.

Francis was an avid mapper of plants, and he had his own base maps of Britain overlaid with the 10 km grid. On to these he hand-plotted records of many lichens as he found them, and a regular eagerly anticipated event at each BLS AGM was the passing around of these maps during lunch in the Daquise restaurant in South Kensington. At first, the UK distribution of many species had a distinctly SE bias, but year on year their true distributions gradually unfolded! Francis also had more detailed topographical base maps for SE England, onto which he plotted, at a 1 km scale, a large number of epiphytic lichens growing on parkland and wayside trees. The emerging distributions began to show all sorts of patterns, some related to geology and topography and the influence of the sea, but more importantly, zones of distribution around London. On visits to other parts of England & Wales, he saw such patterns repeated, and the pooling of these observations with those of David Hawksworth's, led to the renown "Hawksworth & Rosé Scale", first published in *Nature* in 1970. (Hawksworth & Rosé 1970). This hugely influential paper showed how lichens could

be used to indicate SO₂ levels, and its approach became widely adapted throughout Europe and much of the rest of the world.

Francis would never have claimed to be a lichen taxonomist [and his microscope seemed to be in a state of permanent disrepair!], but he was the first to recognize several sterile crustose lichens to be found in ancient woodlands; these include *Bacidia viridifarinoso*, *Porina coralloidea* and *Schimatomma niveum*, and two species that now bear his name – *Phyllopsora rosei* and *Porina rosei*. Indeed, it has been the recognition and application of lichens as indicators of ecological continuity in woodlands, that has been Francis's greatest contribution to Lichenology. His ideas were formulated in the South of England, and especially in the New Forest, but were later expanded to the rest of the British Isles. He first produced an Index of Ecological Continuity (Rose 1974) that could be widely applied, but then refined the technique, and added regional indices to take account of the wide climatic variability to be found in our islands (see Coppins & Coppins 2002, and references therein). Francis himself began to extend his approach to other parts of Western Europe, and since then many other lichenologists have used his approach in devising similar indices, not just in Europe, but also in N America, and as far away as Thailand.

From his early days as a lichenologist Francis had what must be best described as a love-affair with *Lobaria pulmonaria* and the *Lobarion* community. In the mid-60s, this community was said to be extinct east of the New Forest and in NE England, but Francis was having none of this! I remember well, two late-night phone calls from an excited Francis: one on the discovery of *L. pulmonaria* near Folkestone in Kent (sadly now gone), and the other following his refinding of *Lobarion* species at Eridge Park in East Sussex, last recorded there by Forster some 150 years previous. As for NE England, I was more fortunate in being present, accompanying Francis and David Hawksworth on a tour of the North of England in 1969 (Rose *et al.* 1970). At Shipley Wood in Co. Durham we quickly found *L. pulmonaria*, and walking further along the path at the top of the gorge we encountered a tempting but precariously situated, ash tree leaning out over the gorge some way down the steep slope. Being the youngest, I was 'volunteered' to investigate. On scrambling down to the trunk I rejoiced in shouting out "*Catillaria sphaeroides*". The reply from Francis was something along the lines of "Mmm, Good! But look above your head...". Above my head, on the upper side of the trunk, was a huge patch of *Lobaria virens* – which I had totally overlooked. This sums up the *modus operandi* of my lichen-hunting with Francis over many years: he would sniff out any *Lobarion*, while I concentrated on the more diminutive lichens - termed "Coppins species" by Oliver Gilbert. On that 1969 trip the three of us were joined in Northumberland by Oliver, who had recently completed his PhD on lichens and air pollution in the Newcastle area and was engaged in preparing a Lichen Flora of Northumberland (published in 1980). We found *L. pulmonaria* on a

large ash at Whitfield Park, although Oliver had previously 'bagged' the species for the county, near Wark two years earlier.

Francis' reputation as a botanist is generally associated with the Flora and Vegetation of Southern England, and his knowledge in the region has scarcely been paralleled, and probably never will be. However, I would finally like to highlight Francis' contribution to Scottish Lichenology. Each year, from the early 70s until the early 90s, Francis made at least one visit to Scotland, mainly investigating woodlands in the west, from Galloway, north to Sutherland. In the recently compiled Scottish Lichen Database we have records made by Francis from about 530 sites. Many of his visits were in collaboration with the NCC in Scotland, and some can at best be described as 'whistle-stop tours', sometimes visiting 3 or 4 woodlands in a day, and often in the company of others such as Peter James, Ted Wallace, Simon Davey, Pauline Topham, Richard Ashby and myself. On the basis of Francis' recommendations, several of these sites were designated SSSIs for their lichen interest, sometimes following only a brief visit in appalling weather, and an equally brief [but highly perceptive] written [often by hand] report. This might sound like a very dodgy basis on which to legally designate sites, but Francis had an uncanny ability to size up the importance of a site even after only a short visit, and subsequent surveys of these previously hurriedly visited sites have entirely vindicated his assessments.

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Brian Coppins

FRANCIS ROSE – A PERSONAL APPRECIATION

The two qualities I valued most during my long friendship with Francis were firstly the incredible generosity he gave to all with an enthusiasm for botany, even those lacking much aptitude. The second was the way he made me feel I was the most important person to him, even though I know he made others feel exactly the same way.

I first met Francis in December 1971. He had arranged a joint meeting of the Lichen Society with the Southampton Natural History Society in the New Forest to look at lichens. Unfortunately, I found I could not go. I phoned Francis and asked if it would be possible to go another time, and we immediately arranged to spend the whole of the next Saturday looking at lichens.

“I did not realise lichens grew on trees,” I said naively after the arrangement had been made. Francis chuckled in his inimitable way and added, “Yes....I think I can safely say that you will find that there are one or two species that do grow quite happily on trees.” We duly met up in Lyndhurst, and visited a piece of ancient woodland nearby. On a moribund beech, I found a large, but rather ragged leafy thing that looked odd to me. “Is this a lichen?” I asked.

“Oh yes,” Francis replied, “That is *Lobaria pulmonaria*.” It was definitely a good species to have as the first lichen I was ever aware of. During that incredible day, Francis showed me, and I collected little bits of, one hundred and five corticolous lichens. Species included *Parmotrema arnoldii*, (checked later chemically by Francis), a species I have never seen since. Francis’s infectious enthusiasm for lichens, the New Forest and especially their relevance to woodland ecology had me hooked. On the second occasion I looked at lichens with Francis in early 1972, a young enthusiast joined us. I remember he had long black hair and smoked a pipe. Francis asked me if I minded if a student of his joined us. I was incredibly impressed when this student pointed out *Cetraria glauca* to me, a species I had not seen before. The student was Brian Coppins.

During 1972, Francis asked me to join him on trips to Devon (we discovered Horner Combe), to Pembrokeshire (we discovered Tycanol) and in late August, I joined him, and the late and great Ted Wallace on a fortnight’s trip to Argyllshire. Francis showed me with awe and reverence his favourite site to the north of Loch Sunart – Camasaine Wood. Francis’s enthusiasm was always so infectious, and that trip remains one of my most precious memories. Before we left for Scotland, he told me all about the treasures we would see; treasures including species of *Pseudocyphellaria*, *Pannaria*

and *Parmeliella*. His ability to arouse enthusiasm in his subject in others was, to me at least, a unique gift.

I will never forget Francis's joy and amazement at finding the woodlands that fringe the north side of Loch Melfort. "I think I can say, without much fear of contradiction," Francis intoned with such an air of authority, "That this is the finest example of broad-leaved woodland in the British Isles.....and indeed most probably, in the whole of Western Europe." Frequently.....perhaps too frequently, he would bestow the same accolade on an ancient ash tree. It was all part of that incredibly enthusiastic attitude.

Francis's knowledge was awesome, as were his telephone calls. Frequently, I would tell him I was off to some remote part of the British Isles. This was like accessing the most incredible computer. He could read his mind like a map, and suggest sites to visit, adding a list of the exciting species he had seen in them. His maps too were treasures of information, wonderfully annotated, and with the best sites shaded. These ought to be handled with the greatest care as there is much site information on them that should be kept highly confidential.

Francis was always a bit overweight, and his pipe was a constant companion. However, even into later life, his physical energy in the field was legendary. I remember in Argyll in 1972 watching Francis continue fieldwork in a deluge, his pipe still held between his teeth.....upside down!! Latterly, his ankles particularly began to weaken, but he still loved to be taken into the field to see lichens, and especially orchids. To see the joy he radiated when I visited him, right up to the latter days will be a long cherished memory. My friendship with Francis was the greatest privilege, and without him, I would never have had the rounded appreciation for botany that he instilled into me. What is also so wonderful,, is that I am very, very far from unique in feeling this way.

Simon Davey

FRANCIS ROSE: A MEMORIAL EVENT
12 October 2006
Wakehurst Place, Sussex

On a glorious October day about 120 friends and family gathered at Wakehurst Place in Sussex to celebrate the life of Francis Rose. An appropriate place as Wakehurst lies deep in the Sussex Weald, one of his favourite haunts. It started with a walk through the gardens down to the Reserve which had been inaugurated in his honour in 2003. David Bellamy, one of his former students, then opened a bird hide at the edge of the Reserve overlooking a lake. We then wandered into the Reserve where amongst the

trees there are outcrops of moss-covered Wealden sandstone. It was a chance to talk and bring back memories of Francis in a place and habitat he loved. You felt there was always a chance that you could find him leaning over your shoulder saying mm – that's interesting! Though, the only lichen of note seen was *Thelotrema lepadinum*. We then retired to the restaurant for lunch.

Formal presentations took place in the afternoon in the Mansion. They began with a welcome from Andy Jackson, Head of Wakehurst Place, who spoke of his inspirational personality and ability at translating real science into practical applications. David Bellamy then spoke of his indebtedness to Francis for inspiring and persuading him to study for a degree. His legacy lay partly in the 250,000,000 field records that he had made. Tim Rich from the National Museum of Wales then described his magnificent herbarium of 18,000 specimens of vascular plants, bryophytes and lichens, together with note books, housed at the National Museum of Wales. Sean Edwards and Rod Stern from the British Bryological Society talked of his long standing interest in bryophytes going back to 1945. Following on Pat Wolseley, the President of The BLS, said Francis had joined the BLS soon after it was formed but had not taken much interest until Dougal Swinscow, a long standing friend, persuaded him to take up lichens in the mid 1960s. She referred to his pioneering field excursions and said that in a sense, we had all followed in his footsteps. Brian Coppins then spoke (see the extended account on p1), David Hawksworth then talked about his pioneering work on lichens as pollution indicators and as indicators of continuity (see also Hawksworth, 2006). David Lang spoke of first meeting him in 1951 and his contribution to the study of orchids in Britain. Clive Stace talked about his modus operandi and his connections with continental Botanists. David Streeter finished off the proceedings by talking of his contribution to nature conservation through his support of the Wildlife Trust movement and the very many reports he had written for the Nature Conservancy and its successors, English Nature, CCW & SNH.

The day finished with another walk back down to a hillside overlooking the Reserve where an oak tree was planted in his memory with members of his family watching on. I stood and imagined Francis watching with interest the colonisation of lichens and bryophytes over the next century as the tree grows to maturity.

Inevitably it was a day of mixed emotions, with an air of sadness, but also happiness that we had known such a great man and that he had such an inspiring impact on so many lives. We left reflecting on the legacy he had left for field botany not just in Britain but in much of Europe.

Peter Lambley

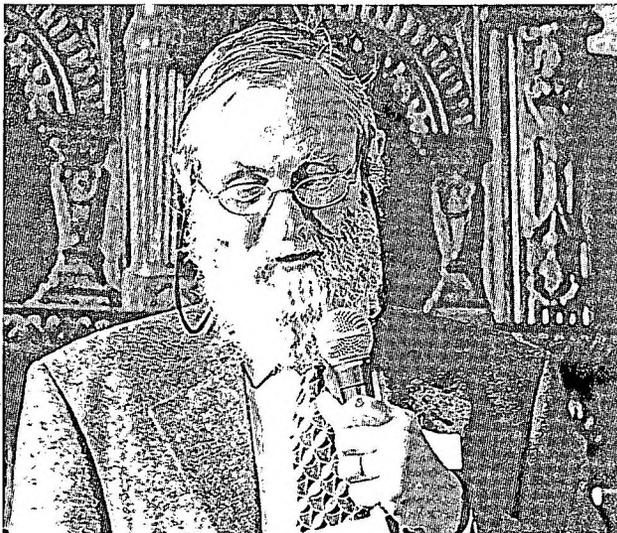
Reference Hawksworth, D L (2006) Francis Rose *International Lichenological Newsletter* 39(1) 12 - 14



Pat Wolseley
Photo 1 Jeremy Gray



David Hawksworth
Photo2 Jeremy Gray



Brian Coppins
Photo3 Jeremy Gray



Visiting the Francis Rose Reserve. The party includes Brian & Sandy Coppins, Frank Dobson, Simon Davey, Pat Wolseley & Vince Giavarini.

Photo 4 Jeremy Gray



Planting the oak tree. The party includes David Streeter & David Bellamy (left), Anna Rose (centre) & Nicholas & Andrew Rose right.

Photo 5 Jeremy Gray

MONITORING AIR POLLUTION WITH TREE TWIG LICHENS IN THE RYAZAN REGION WITH STUDENTS FROM RUSSIAN SCHOOLS

Introduction

After working in an orphanage with teenagers from our church youth group in Shilovo, Russia, I was approached by the Head of the Shilovo District to return and help teach practical Ecology in his schools. Five years later, I have just returned from my fifth visit monitoring 8 rivers for water pollution and 10 woods for air pollution using tree twig lichens, visiting 20 schools, speaking to 500 students on a 1000 km journey in the Ryazan Region of Russia. Ryazan is about 200 km South East of Moscow (fig 1).

On previous visits I noticed that lichens on trees were similar to those in the UK. I was able to identify a few with the help of Sheila Street, a BLS member. Armed with a Russian version of the modified Field Studies Council key I set out to work with Russian students and teachers.

Monitoring the environment was met with enormous enthusiasm by Russian students. Usually I was the first English person they had ever met. Most schools do not actually teach Ecology as a main subject and very few schools ever carry out practical field work. Many schools teach science but it's more formal and class room based. The majority of schools are very poor, have pit toilets and do not have any equipment or identification keys or books.

I followed a suggestion made by a local student studying at Ryazan University (now a headteacher of a local secondary school), to make a video showing students at work in the UK at the Newtown National Nature Reserve, on the Isle of Wight. This we made with the help of a local Biology teacher in 2005 showing practical monitoring and survey techniques for air pollution using lichens as indicators, with students from the Medina Valley Centre. Most schools did not have a video recorder so we took one around to all the Russian schools and showed the video. Hopefully in a few years' time schools will be able to use DVD's.

How the surveys were conducted

In October 2005 I set out for Russia again, with the new Russian key, survey sheets, survey methods and lenses, (all financed by Volunteers from Newtown National Nature Reserve, friends and 'Love Russia' a UK charity). This time I had the support of the Director of Education for the whole Ryazan Region responsible for over 600 schools. I travelled to 20 schools and surveyed Tree Twig Lichens in 10 woods,

usually close to the school grounds. I often requested a small team of about 30 students but invariably the whole school joined in. Each school group would be divided into several smaller sub-groups and the nitrogen index would be calculated from the results of all the groups. The highest nitrogen index could be 12 and the lowest 0. The sampling methods were based on the online survey established by the Natural History Museum (Natural History Museum, 2004). A group of trees of the same species where the twigs could be reached on the same aspect were randomly chosen close to or within the school grounds. 10 twigs were selected. Each group of students recorded the selected lichens found along the main branch of the twig until the branch was c. 3cm thick (c.10 years old). Each group had a lichen recording form for each twig and recorded the Cover Value between 0 to 3 for each lichen species found. The Nitrogen Index was calculated from the mean value of *Xanthoria sp.* plus the mean value of the *Physcia sp.* divided by the mean cover value of the other species of lichen. This was the first time such a survey was done in schools so headteachers often were very interested and joined in.

What was achieved?

As shown by the results in Table.1 the sites surveyed had low nitrogen indices. The samples were taken from acid-barked trees with the exception of Sallow at Site 'a', so that the expectation would be that the acidophyte species form the natural epiphytic vegetation. The loss of acidophyte species with the increase in nitrophytes would be the clue to increasing nitrogen pollution. Sites a, b, e, f and h clearly show this (Figure 2). Where nitrophytes are dominant and diversity low the situation is bad as seen at a, e and f. Figure.1 clearly shows the increasing dominance of nitrophyte lichens in this survey of the Ryazan Region and only the 'other' species being dominant in the Oka State Nature Biosphere Reserve, site 'c' and at site 'i'. The greatest diversity of 'other' lichen species was recorded in the Oka State Nature Biosphere Reserve site 'c' and site 'i'. However the second highest Nitrogen Index was recorded in a village 'e' only a few kilometres outside the reserve. Around villages farming is very basic with a few livestock, few tractors, horses still being used for ploughing and no intensive farming methods. But larger areas in the more remote countryside are beginning to see more intensive farming with large tractors and fertiliser beginning to be used.

The acidophytes *Cetraria sepincoloa* and *Hypogymnia physodes* were found in the Nature Reserve, and *Parmelia submontana* (equivalent to *P. saxatilis* in the UK) was recorded in naturally forested areas d and j. It was difficult always to find the same species of host tree in all the locations because I had no transport and it was too far to walk with the students but where possible Oak and Birch trees were found. Diversity was generally low, often only 3-4 species would be found on the twigs and 6 or more species were only recorded at a few locations. The dominant species found were:

Xanthoria parietina, *Physcia aipolia* and *Parmelia sulcata*. Other species recorded are shown in Table 2. *Physcia aipolia* was often the most dominant on these surveys and is usually associated with more stable lichen communities with either a higher bark pH or some nutrient addition and slight pollution (Richardson, 1992). The smaller range of lichens found does help students trying to identify lichens for the first time. No fruticose species were found on twigs but several on tree trunks in the Oka State Nature Biosphere Reserve in Oksky and for example these were: *Evernia prunastri*, *Usnea hirta* and *Ramalina fraxinea*. *Thelotrema lepadinum* an indicator in the UK of ancient woodland was only found at the remote school site 'i'. I was able to discuss some of my findings with Research workers in the State Reserve and was given a local species list. 13 species were the same species as on my translated lichen key and 25 of the same genus.

The students seem to have no difficulty in using Latin species names as they are taught to use scientific names in botany.

I count it a tremendous privilege to travel so far, meet so many students and to be allowed to conduct surveys with Russian students in such a beautiful region of Russia.

Acknowledgements

The Education Authorities of Ryazan, Kasimov, Spassk and Shilovo in Russia. 'Love Russia' Charity on the Isle of Wight, The National Trust on the Isle of Wight, the Volunteers of Newtown and members of the public for their financial support. Pat Wolseley of the Natural History Museum for the encouragement to develop the work in Russia. Sheila Street in preparing the key and Katia Winter for the Russian translation of the Key to Lichens on Twigs. Field Studies Council for permission to translate the key into Russian.

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Simon Young

Table 1 Location of sites in the Ryazan Region of Russia showing tree species sampled and Nitrogen Indices for lichens

Site	Name of School and/or site of wood	Latitude and Longitude	Tree Species	Date of survey	Nitrogen Index	Comments
a	Tyma nr Ryazan	55°03' N 40°45' E	Sallow	5.10.2005	0.5	Very rural area with small farms
b	Sentulka nr Kasimov	55°03' N 41°18' E	Alder	7.10.2005	0.7	Forest area
c	Brykn Bor in Oka State Nature Biosphere Reserve	54°42' N 40°48' E	Birch	9.10.2005	0.05	Ancient forest area
d	Brykn Bor in Oka State Nature Biosphere Reserve	54°42' N 40°48' E	Oak	9.10.2005	0.3	Open area near small village in ancient forest area
e	Lakash nr Brykn Bor	54°42' N 40°54' E	Alder	10.10.2005	1.6	Wood strip close to village with farm animals
f	Perkino nr Shilovo	54°15' N 40°15' E	Cherry	11.10.2005	1.3	Wood strip near village
g	Pochinki nr Shilovo	54°41' N 41°24' E	Oak	12.10.2005	0.6	Wood strip near village
h	Inakino nr Shilovo	54°25' N 41°06' E	Birch	13.10.2005	2.6	School grounds near main road within a large village
i	Zheludyovo nr Shilovo	54°12' N 40°56' E	Birch	14.10.2005	0	Very rural village away from towns
j	Shilovo	54°17' N 40°54' E	Oak	15.10.2005	0.5	Mature Oak woodland near edge of large town

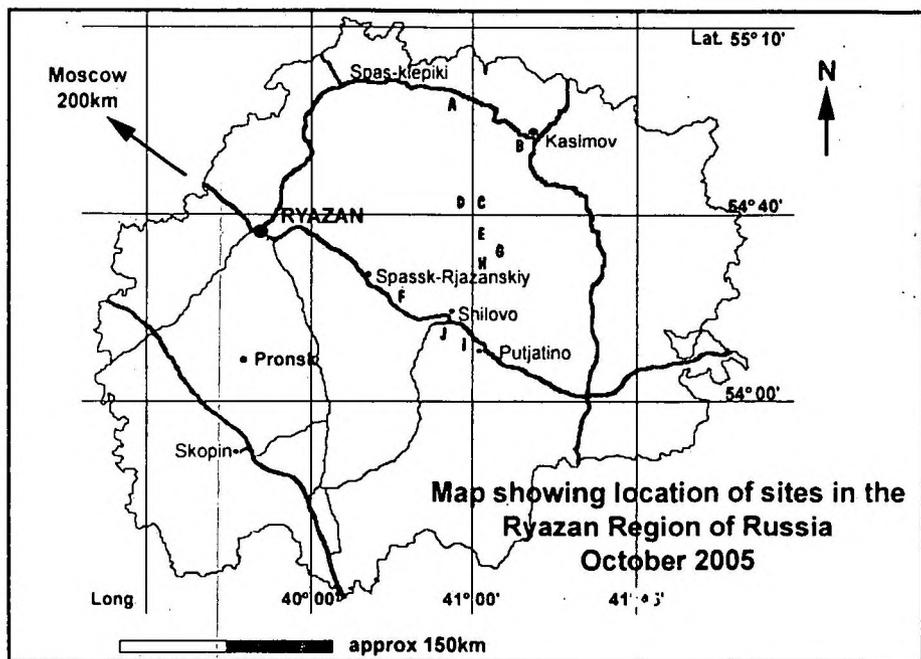


Figure 1

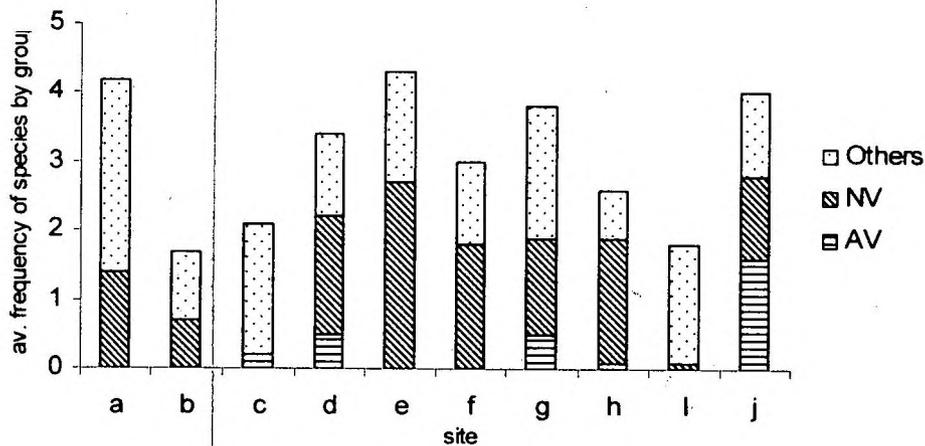


Figure 2

	Sites									
	a	b	c	d	e	f	g	h	i	j
Species										
Acidophytes										
<i>Cetraria sepinicola</i>			0.1					0.1		
<i>Hypogymnia physodes</i>			0.1				0.5			0.5
<i>Parmelia submontana</i>				0.5						1.1
Nitrophytes										
<i>Hyperphyscia adglutinata</i>									0.1	
<i>Physcia adscendens</i>	0.3	0.1		1	1.1	0.4				0.5
<i>Physcia tenella</i>				0.2	0.1					
<i>Xanthoria parietina</i>	1.1	0.6		0.5	1.2	1.4	1.3	0.2		0.7
<i>Xanthoria polycarpa</i>					0.3		0.1	1.6		
Others										
<i>Caloplaca cerina</i>		0.2			0.2		0.4	0.1		
<i>Lecanora confusa</i>			0.5	0.3						
<i>Melanelia exasperatula</i>			0.5	0.4			0.2	0.3		
<i>Parmelia sulcata</i>		0.3	0.9		0.4	0.4			0.4	
<i>Physcia aipolia</i>	2.5	0.5		0.5	1	0.8	1.5	0.4	1	1.2
<i>Rinodina sophodes</i>	0.3									
<i>Thelotrema lepadinum</i>									0.2	

Table 2

SCOTLAND – LAND OF LICHENS

A while ago I had an inquiry about lichens in Perthshire from Mr Arthur Robinson, who was preparing for publication his great great great grandmother's journal, made during her travels in Scotland. Mrs Philothea Thompson was wife of Thomas Thompson, a merchant and banker in Hull, and both were staunch members of the Methodist wing of the Church of England. In the summer of 1807, Mrs Thompson, accompanied by her second son John, made an 800 mile tour of southern Scotland, going as far north as Blair Atholl. Among her many observations and comments on a wide range of aspects of the country and people, she wrote very enthusiastically of lichens, though somewhat misunderstanding their biological role. The following is taken from her diary while staying at Dunkeld in Perthshire, visiting Dunkeld Hermitage and Blair Castle (still good sites for lichens).

“Scotland justly ranks amongst the countries of superior beauty; and it has many peculiarities; but if I was to denominate it from any single circumstance, I should call it the land of Lichens. Never did I see an approach towards the quantity of that vegetable, which appears to thrive so much more in this country. I shall learn to give more credit in future to those who enlarge on a given subject. I had supposed that the writers on Botany multiplied the species, from its accidental varieties; but really the kinds here are so numerous, and so strongly marked, that I no longer hesitate to believe there may be as great a variety as is represented. Every rock and Tree is embroidered with one sort or another, and sometimes with two or three sorts together, and the Lichens are often to be distinguished to a considerable distance. Some adhere so closely that no art can separate them. Of others, the fronds spread loosely over a large surface, and only the stems or roots adhere. But the most amazing circumstance is in the case of many of the Trees in the Duke of Athol's pleasure grounds. The bark of many trees, particularly Firs and Larches, whose branches rise from the bottom, were so covered with Lichens as to appear as tho covered with snow. This parasitical vegetation seems to destroy the branches it covers, tho the top of the Tree frequently appears in full vigour. There were I suppose many hundreds of Trees loaded thus with Lichens; and in the state of partial death which I have described.”

I am grateful to Mr Robinson for allowing me to quote the above passage. For those of you who may wish to purchase a copy of his delightful, well-illustrated book, details are as follows: Robinson, A R B 2006. *Seeking the Scots. An English woman's journey in 1807*. York: privately published. ISBN 0-9552692-0-2. Card cover, 92 pp, with 40 illustrations and maps. £7.95 plus £1.30 postage. Available from Mr A R B Robinson, 2a Brecksfield, Skelton, York, YO30 1YD.

Brian Coppins

FUN WITH CRYSTALS UNDER THE MICROSCOPE

Those members who have had fun watching the red crystals grow under the microscope when they bleed in K under the coverslip with lichens containing norstictic acid may like to try one or two other tests. But those who have not tried this test yet must have a go. All you have to do is to put some bits of thallus on a slide with a wee bit of water and squish them with the coverslip. Put the slide under the microscope under low power. Now carefully add a small drop of K at the edge of the coverslip being VERY careful not to drop any onto the microscope stage (or any other part of your microscope!). Look down the microscope and watch the bits of lichen. After the K has rushed past, wait a few moments and you will see the most beautiful red crystals growing before eyes, criss-crossing each other – switch to high power - amazing! Once you have done this and when you have got the ‘bug’, you can do others as easily.

Another test I have found useful is for the detection of confluent acid. This acid does not respond to any spot tests and is usually only identified with thin layer chromatography (TLC). The trouble is that it is really useful in identifying some species of *Porpidia* and one could be a bit stuck without TLC. But, you can detect it with a test done very like the norstictic one but with sodium hydroxide solution rather than with K (which is, of course, potassium hydroxide). I have two little dropping bottles on the ready with my microscope: one with K and one with sodium hydroxide. When you do the test with confluent acid and sodium hydroxide, fans of the most beautiful colourless crystals grow out from the lichen tissue or section. Be sure you use a reasonable sized bit of lichen. I have found that it does not work if you have a tiny bit the size of a cluster of soredia – it is best to cut a section, or a chunk, out of the thallus.

There is also the crystal test to distinguish lecanoric from gyrophoric acid (as described in Orange et al. 2001) which is good for checking *Punctelia subrudecta* from *P. borrieri*. This is done by placing a few fragments of lichen on a microscope slide and adding a drop or two of acetone and letting the acetone form a little puddle in the centre of the slide. Let the acetone evaporate and it will leave a ring of dissolved substances on the slide. Brush off the extracted bits of lichen. Then add a small drop of (GAW which is a mixture of water glycerine and alcohol in equal proportions) then a coverslip and gently warm the slide. I warm it over a candle flame taking care not to let the GAW boil. After warming put the slide under the microscope and watch for growing crystals. You may see some crystals that are already there but ignore these, concentrate only on the ones you see growing. Orange et al (2001) has drawings of the crystals of lecanoric (nice big long crystals) and gyrophoric (small clusters of short fine needles) acids. It is well worth having a go at doing this yourself using your own specimens of *P. subrudecta* and *P. borrieri*. Once you have got this to go well, the

doors are open to many other crystal tests which help to identify many lichen substances without using thin layer chromatography. TLC is not really available to most amateur and even some professional lichenologists but crystal tests are. Some pictures of crystals can be found in Hale (1961, 1967, 1974 and 1983) and more in Huneck and Yoshimura (1996). The best thing to do is to use the pictures only as a guide, but rely mainly on using your own preparations from easily identified species with known chemical constituents.

There are one or two other tests that might be worth trying. For distinguishing between the very similarly coloured yellow substances vulpinic and rhizocarpic acids, just extract the lichen fragments with acetone (as described above) and look with your microscope at the ring left after removing the bits of lichen. You may find that the vulpinic forms clear long straight crystals but the rhizocarpic acid forms small circular clusters or plates. (No need to go further with the GAW) Have a go with crystal test and see for yourself! Check out the methods in Orange et al. (2001) which you can get from BLS Publications.

For what I have suggested, all you need is acetone, glycerine, alcohol water and sodium hydroxide and K. None of these presents any additional health hazards to those you are already familiar with except acetone which is highly flammable. The greatest problem is getting hold of acetone and alcohol. I phoned a timber store (Robbins Timber) that also sells all kinds of wood finishing products like marine varnishes etc and they sell acetone. Sodium hydroxide (caustic soda) is used for stripping paint clearing drains etc and can be obtained from B&Q DIY stores. Alcohol is more of a problem but it would be worth trying methylated spirits or why not go for overproof vodka (e.g. Stolovaya 50% Russian Vodka, <http://www.whiskymerchants.sageweb.co.uk/default.htm>) which should be 50% alcohol and then adding to this glycerine 2 parts vodka to 1 part glycerine (obtainable from <http://www.essentialoilsonline.co.uk/index.html>), gently shaken (not stirred) and there you are: GAW mix - but try not to drink it!

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Huneck S and Yoshimura I (1996) *Identification of Lichen Substances*. Springer, Berlin.

Orange A, James PW and White FJ (2001) *Microchemical Methods for the Identification of Lichens*. BLS, London

By a seasoned member seeking improvement in his identification!

A BONE TO PICK: RECONSTRUCTION OF A COMPLETE THALLUS OF *THAMNOLIA VERMICULARIS*

In several sites in the northeastern high mountains of Turkey, parts of *Thamnolia vermicularis* (Sw.) Schaer. were detected in wind-exposed situations. These worm-like thallus fragments (*vermis*, lat. = worm) produce a dark red fluorescence under UV-light at 365 nm (interpreted as negative in determination keys), caused by thamnolic acid which has a K + yellow and a P + orange thallus reaction. Furthermore the surface of the lichen turns to a slightly rose tinge after a longer time in a herbarium. *T. vermicularis* var. *subuliformis* (Ehrh.) Schaer. (syn. *T. subuliformis* Ehrh., *T. subvermicularis* Asahina) is also found in this region of Turkey. This lichen does not turn rose in a herbarium and has K + light yellow and P + dark yellow thallus reactions, due to baecomycetic and squamatic acids; in addition, these compounds give a UV + white fluorescence (Wirth 1995).

In 1997, a sensational discovery was made in these Turkish mountains as a consequence of extensive collections of fragments of *Thamnolia vermicularis*. Although this lichen has not been shown to possess propagules, either generative or vegetative diaspores (Purvis 1992), the present study shows that fragments hitherto interpreted as thallus are indeed huge propagules of a lichen whose entire thallus is about 15 cm in size. In order to recognize this phenomenon, the term "ossimilus" ("ossimila", plur.), derived from *os*, lat. = bone and *similis*, lat. = similar, is proposed for these propagules (Fig. 1).

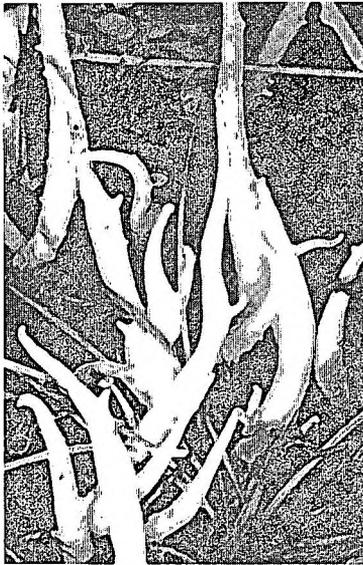


Figure 1. Ossimila (c. 2.3 cm) of *Thamnolia vermicularis* in their natural habitat.

These thallus fragments were found in such large quantities, that it was possible to reconstruct for the first time a complete thallus of this remarkable lichen. The reconstruction (Fig. 2) clearly explains why the English name is “dead man’s bones” and the German name is “Totengebein-Flechte”. No doubt as a consequence of this breath-taking research, the Turkish lichenologists would wish to introduce a similar name, viz. “Kemik iskeleti likeni”.

Specimens examined:

Thamnolia vermicularis var. *subuliformis* (Ehrh.) Schaer., Turkey, Trabzon (61), exposed rocks between Uzungöl and Soğanlı geçidi, 40°34’N, 40°17’E, alt. 2150 m, on soil between siliceous rocks, 26.VII.1997, leg. V. John (no.11517). Details of a second collection are provided in John & Breuss (2004).

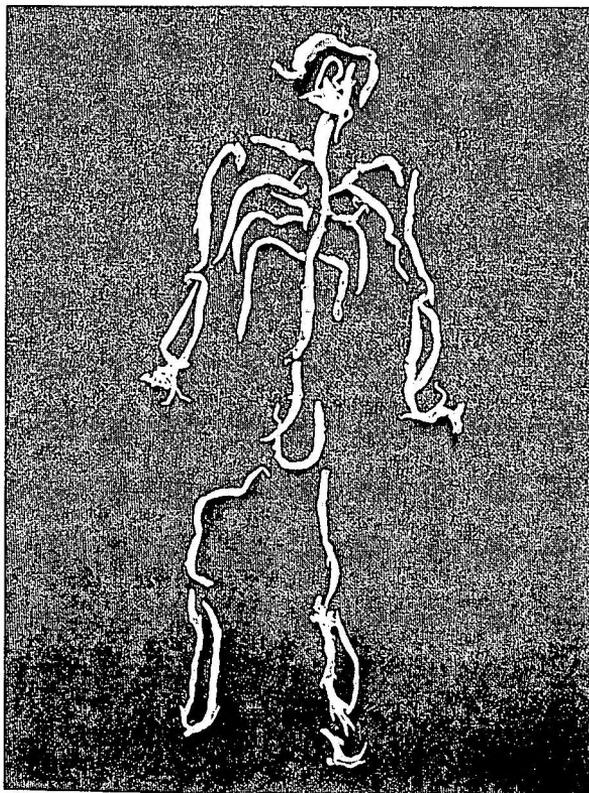


Figure 2. Reconstruction of the complete thallus of *Thamnolia vermicularis* (c. 15 cm).

Acknowledgements:

I am grateful to Othmar Breuss, Wien, for his help in collecting the samples in Turkey, to my dear wife Silke for her assistance in reconstructing the thallus, and to Mark Seaward, Bradford, for linguistic corrections.

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Volker John
Bad Dürkheim

BLS FIELD MEETING AT ASHBURNHAM PARK

The weather was excellent when the Society met at Battle to attend its autumn meeting centred on Ashburnham Park. We stayed at the George in Battle, a hotel with considerable character. The evening meals were most enjoyable and the Society was once more able to dovetail a series of important meetings with the visits to Ashburnham Park.

Ashburnham Park is a residential conference centre set in extensive grounds that include areas of important ancient oak woodland. The current managers of the estate are very keen for the wildlife conservation of the Park to be given high priority and welcomed our visit warmly. The Park has been the subject of many lichen surveys in the past, especially by Francis Rose. The Society also held a field meeting here in the 1970s, since when many trees have been lost as a result of the great storm in 1987 and Dutch Elm disease. There was also a period of neglect when rampant regeneration and *Rhododendron* invasion caused considerable deterioration to the lichen flora. This has now been halted as a result of sensitive management by the Estate. Over the years,

several important species have been lost. Many that used to occur at Ashburnham such as *Bacidia incompta*, *Caloplaca luteoalba*, *Collema fragrans* and *Cryptolechia carneolutea*, all seen in 1967, have suffered major decline throughout the Country. It is hardly surprising therefore that they have not been seen in Ashburnham for many years.

Recent surveys had suggested that losses had been severe, however during the Society's visit, some most important finds were made. A moribund beech tree provided the habitat for good quantities of *Pertusaria velata* and *Lecanora sublivescens*, both of which were new to the Park. A fine oak supported a large amount of *Gyalecta truncigena*, some of which seemed to resemble *Ramonia chrysophaea*. However in spite of very careful examination, no *Ramonia* was found on this tree, or on any other in the Park. *Ramonia chrysophaea* was certainly present in 1987, when it represented the sole known site for the species in East Sussex. Other important species which appear to have been lost since 1989 include *Parmotrema crinitum*, *Punctelia reddenda* and *Dimerella lutea*.

In spite of this, the corticolous flora still contains a good range of ancient woodland species. Particularly noteworthy are *Arthonia vinosa*, *Cladonia parasitica*, *Lecanactis subabietina*, *Lecanographa lyncea*, *Lecanora jamesii*, *Pachyphiale carneola*, *Schismatomma niveum*, *Schismatomma quercicola*, *Thelopsis rubella*, *Thelotrema lepadinum* and *Usnea ceratina*. These all helped towards a current New Index of Ecological Continuity for the Park of 18. The all time inclusive NIEC scores for Ashburnham Park were 33 and 35T, but by 1989, this had fallen to 24.

Ashburnham Park also offers good saxicolous habitat, which includes an interesting churchyard, some fine walls and the colonnade in front of the main building. Prior to our visit, 111 saxicolous taxa had been recorded in the Park so it was pretty well known. In spite of this, seven new saxicolous species were added to the Park list. The most noteworthy of these was *Collema fuscovirens*, last recorded in Sussex in 1870. Also of great interest was *Ramalina siliquosa* found in the churchyard, a most interesting record for this predominantly maritime species.

The programme was scheduled to include the grounds of Battle Abbey, however the potential of Ashburnham Park was so great that the whole of our time was spent there. In spite of obvious losses, the Park remains a site of very great importance at both county and regional, if not national levels. The Society is most grateful to the help and encouragement we received from Rod Jones who is the Estate Manager for Ashburnham Park.

Simon Davey

THE SECRET LIFE OF LICHENS

A Lichen Exhibition prepared by John Douglass and South Lanarkshire Council

Cadzow Gallery, Chatelherault Country Park, Hamilton ML3 7PJ: from 15 July to 24 November 2006, when it will be available to travel to other venues

This is a fantastic exhibition – make no mistake, this is a real treat. It has all the freshness and enthusiasm of discovery and delight in lichens. There has been nothing like it in the UK since William Lauder Lindsay's exhibit in Edinburgh in the 1860s.

The images are truly stunning and have been brilliantly reproduced onto 22 hanging panels depicting different aspects of lichens, lichen habitats and lichenologists. Enormous credit must go to the South Lanarkshire Council design team at Chatelherault, especially Linda Barrett, for bringing out the beauty and wonder of the lichens. As well as providing many of the images himself, John also sourced his images from various other members of the BLS: there are dramatic lichens from China (Anne Allen, Barbara Hilton), lichens from the Namib Desert and Antarctic wastes (Peter Crittenden), Tropical lichens (Pat Wolseley), lichenologists enjoying churchyards (Peder Aspen), Lichen Apprentices at work (Sandy Coppins), and superb shots by Jeremy Gray and several others. Clare Dalby generously allowed John to reproduce some of her exquisite paintings of lichens for the section on Lichens in Art and Poetry.

There are show cases of lichen products (medicines and food); cases with lumps of rock of differing geologies with characteristic lichens; a case exhibiting items sold by the British Lichen Society; another case showing what a lichenologist wears and carries as he goes out into the field (including typical John Douglass food – a can of sausages in baked-beans).

To appeal to younger visitors (though we had a go too!) are games such as "Lichudo" (variation on sudoku, using lichen portraits mounted onto blocks), a quiz, revolving cubes showing habitat, species, detail of the species and finally microscopic section of the species – brilliant! There is also a stunning giant 3D section of a lichen thallus, showing cortex, medulla and algal layer, fungal hyphae, soredia and isidia. (This model is beautifully made by Annette Townsend, working with Alan Orange at NMW in Cardiff).

Surprisingly popular on the opening night was the bench with four microscopes set out, with trays (sub-divided into sections) containing various lichen specimens, plus copies of Dobson. The four microscopes were in constant use, as visitors enjoyed actually handling a "real" lichen, viewing it through dissecting microscopes and leafing through Dobson.

My favourite was a large panel, beautifully painted showing the eminent Victorian lichenologist Lauder Lindsay sitting at work in a garden, with a modern-day lichenologist standing beside him, with an open space cut in the panel for the lichenologist's head. You are invited to put your head into the space, and smile.

A truly collaborative affair, one that John Douglass, South Lanarkshire and members of the BLS can feel justifiably proud. Do go and see it !!

Where will it be next?

By the time the *Bulletin* gets to you, the exhibition will have moved from Chatelherault. The exhibit is designed to be readily packed up and transported to new venues. It works like this: South Lanarkshire Council will pack up the exhibit and pay for transportation to the next venue (where-ever it has been requested). Then, the second venue will be responsible for packing it up and paying for it to be sent to the third venue, and so on. The 22 main panels are printed as banners on heavy quality fabric-backed plastic, so can be rolled up for transporting.

For information on accessing the exhibit, telephone 01698 426 213, and ask for:

John Douglass (Countryside Ranger Service South Lanarkshire Council)

John.Douglass@southlanarkshire.gsx.gov.uk

or Linda Barrett (Exhibitions Development Officer, South Lanarkshire Council)

[Linda Barrett@southlanarkshire.gsx.gov.uk](mailto:Linda.Barrett@southlanarkshire.gsx.gov.uk)

Sandy Coppins

LIVING CHURCHYARDS/CHERISHING CHURCHYARDS

Background

- *The Living Churchyard Project* As many of you will know The Living Churchyard Project (LCP) was established in the late 1980s in order to raise awareness of the value of churchyards for wildlife and nature conservation. Together with leading conservation organisations, LCP produced an information pack called The Living Churchyard which was used by churches up and down the country as a blueprint to create management plans for their own churchyard. Sadly, funding ran out in the late 1990s and proactive involvement via a development officer ceased, although the information pack continued to be available.

- *Caring for God's Acre* About seven years ago, Shropshire County Council initiated a project to help nature conservation in some churchyards in South Shropshire. This proved to be so popular that an independent charity, Caring for God's Acre, was set up to cover churchyards in the entire Herefordshire Diocese. This new charity focuses not only on nature conservation but also on the other resources that a churchyard can offer – as a centre for the community, lifelong learning, art and culture, history etc.

Conference 2006

- *Representation* A national conference on churchyard conservation was co-hosted by Caring for God's Acre and Hereford Diocese in May 2006. It was a two-day conference based in Ludlow and consisted of churchyard visits, workshops, tutorials and exhibitions. It was attended by a wide variety of people – members of parochial church councils and diocesan advisory committees, members of national and regional nature conservation organisations, officers from county councils, interested individuals and those that volunteer to keep their churchyard wildlife-friendly. The British Lichen Society was well represented with Joy Ricketts and Ray Woods presenting tutorials, and Frank Dobson and myself dealing with publications and manning the exhibition stand.
- *Day 1* After an opening address by David Bellamy (in which there was a passing reference to churchyards!) we were taken to look at various churchyards around Ludlow involved in the Caring for God's Acre project. These ranged from small relatively easily managed yards to an urban yard which had been totally neglected for many years and presented almost insurmountable management problems including being overrun by brambles, sycamore and snowberry not to mention the antisocial uses to which the area was prone. In each yard there was time to discuss the management problems, possible solutions, health and safety issues etc. During the conference dinner that night, Francesca Greenoak gave a most thought-provoking talk on churchyards and their wildlife.
- *Day 2* The second day was devoted to tutorials of which churchyard lichens, mosses and liverworts, the geology of churchyard stonework and the ecology of walls, churchyard trees and their management, and health and safety and Quinquennial surveys were some of the titles on offer, and to workshops including conservation practice in the management of churchyard habitats, theology and philosophy of churchyard conservation, involving the community etc.

- *Issues and Outcomes* Meeting people with similar management problems, discussing the health and safety issues arising in churchyards (including the controversial issue of laying flat unsafe tombstones and the subsequent threat to lichen communities which the British Lichen Society has been actively engaged in trying to minimise) as well as taking the opportunity to 'educate' people about lichens were the main benefits of the conference. (One delegate offering a 'monument management service' was so impressed by Joy's talk that he has decided to look again at what he offers customers in terms of cleaning tombstones and to spread the message of good practice to other similar businesses.) The organisers hope that a network of interested people with a wide range of expertise will be set up to offer help and support on all aspects of churchyard management. Judging by the number of participants and their enthusiasm, such a network is needed and would be well supported.

Footnote

- On the issue of health and safety in churchyards and cemeteries, I noticed a snippet from the Times newspaper on March 30 2006 entitled 'Official vandals'. This stated 'Local councils are told today to stop the 'official vandalism' of the mass laying down of gravestones in cemeteries on safety grounds. A report from the local government ombudsman of England and Wales says that the practice is inappropriate and should generally be avoided.' I am grateful to Diana Downing, the BLS diocesan representative for Liverpool Diocese for giving me more specific information about this. The Special Report on Memorial Safety in Local Authority Cemeteries can be found at www.lgo.org.uk/special-reports.htm.

Ishpi Blatchley

LINEAN AND ON-LINE LICHENS

On 21 September Frank Dobson FLS gave a stimulating and informative account of lichens in churchyards to a meeting of the Linnean Society, London.

Developing the theme: *Are churchyards an undervalued habitat for lichens and wildlife?* he traced the growth of lichenology from the time of Carl Linnaeus to topple-testing of headstones. In the compressed habitat around the church, which is often the oldest building in the vicinity, headstones and trees frequently extend the range of substrates which are indigenous. Using well-selected illustrations he indicated

the breadth of modern studies on lichens, including growth rate, competition among adjacent species and species diversification.

The talk was very well received by the distinguished audience and led to interesting discussion on topics ranging from the effect on lichens of radioactive fall-out, lichens as food, and global warming.

From the live discussion at a learned society you can travel on-line to learn about lichens. In the comfort of your armchair (and with the aid of your computer) Offwell Woodland (Devon), the county of Dorset, Bransdale and the Yorkshire Dales National Park can all be fitted into a winter afternoon's excursion.

Enter *lichens* on the internet research facility and you will be delighted to find that enthusiastic lichenologists have provided lists of species, photographs, background information and much more to whet the appetite for future visits to these and many other habitats. Congratulations and thanks to those who have made these virtual tours possible.

The venues mentioned are just the beginning of possibilities. Information can be found on Hampshire and on Walton Hall, Buckinghamshire. You can travel (virtually) to look at lichens in North America, Australia - and world-wide. Why not add your favourite site and share your finds with others?

Barbara Hilton

REVIEW

SURVEYING AND REPORT WRITING FOR LICHENOLOGISTS GUIDELINES FOR SURVEYORS, CONSULTANTS AND COMMISSIONING AGENCIES

Ed David J Hill (BLS, London 2006) ISBN 0 9540418 7 9

<http://www.thebls.org.uk>

What do you need to think about when you are putting a report together or you are wishing to commission some work on lichens? This was the thinking behind a British Lichen Society workshop held in Edinburgh in January 2004 and the results have recently been published. The aim was to produce some useful guidance, for both those

commissioning and for those doing survey work designed to help improve on the current situation.

If you are an old hand you won't need to read this. However, it makes some very helpful suggestions so it could be useful to have it at hand as a reminder so that you do not overlook anything. Many of the contents are just as applicable to other groups of plants and fungi and to other taxa – to do with contracts and carrying out fieldwork - but there is a lichen-only part.

The guidance begins with a short introduction followed by a chapter about setting up contracts. This is followed by one on working in the field which includes preparation, seeking permission, Health and Safety, Risk Assessments and Equipment. This is of general interest and could have been included as an Annex. The chapters of key interest to lichenologist include Identification and References. The former is thorough and helpful as is the Reference section.

There is also a chapter on report writing which is clear and which helpfully includes a checklist. Some key issues to remember nowadays include the need for 8 figure grid references, maps showing locations and, of key importance to the statutory nature conservation agencies, recommendations for management. These are vital. Currently only SNH has an advisor on lower plants to include lichens as part of their work. The section on "*Time plan*" interested me.

There is no guidance given here because, of course, it will depend on what is involved in the work except to remember to allow for some contingency planning. As our botanical survey of Cornwall (5 months) took approximately twice as long to write up (10 months) for a team of 4 surveyors it very much depends on the task in hand. Experience will help guide the individual contractor at this point. There is a natural tendency, when working as a contractor, to take on what you're offered and then have everything to report back on at the same time making it a rather difficult and tense time. Those letting the contracts need to have some notion of what is a reasonable time to allow for drafting and finalising a report. We have generally found an "iterative" style helpful, that is where a draft is submitted which can be commented on, sent back and then finalised. And, finally, there is an Annex included which provides the Agenda and attendees for the original workshop.

I have two suggestions – that the guidance might have benefited from a foreword as it plunges straight in in a report format! And the other is that when it is re-issued the BLS might consider inviting other specialist societies to contribute their own chapters and reference list to make it a tool suitable for all plants and fungi report writing.

Jill Sutcliffe

TALKING POINT

The contribution below raises an interesting point. A flora writer may like to respond – Editor.

A pedant writes ‘A common phrasing in lichen floras is ‘Thallus usually more than 2mm in width ...’ or some similar wording. The problem is that when I have a specimen in my hand, it cannot be ‘usually’ anything. It is a unique specimen. How can I, on the basis of this one specimen, say how typical it is? It is no more than its own singular size. ‘Usually’ is the form of words used by for example a herbarium worker with lots of material available for him to look at, or perhaps the experience of a field worker who has looked at lots of lichens in the field. Both can validly say ‘usually’ and could, if pressed very hard, give some numerical value say that is based on 20 specimens, or some subjective impression that tells an equivalent story. This gives us a probability (precisely stated or implied) that any single specimen comes from a given population, and that population is what is being discussed. But the beginner lacks the wider knowledge available to the Flora writer and really has no idea how typical his specimen may prove to be.’

D H Dalby

BRITISH ISLES LIST OF LICHENS AND LICHENICOLOUS FUNGI September 2006 update to list

The fully corrected and inclusive list is available on the BLS web site, <<http://www.theBLS.org.uk>> both as text and as a CSV file as well as this update (and previous updates to the list originally published on 22nd March 1999). The additions and corrections have also been made to the BioBase for Lichens species dictionary, and an updated BIOTAB file is available to users from Janet Simkin.

Anyone encountering difficulties regarding nomenclature or BLS code numbers, please contact one of us, as below.

E-mail contacts (with main responsibilities):

Brian Coppins (nomenclature, spelling, authorities, dates of

publication)<b.coppins@rbge.org.uk> or <lichensEL@btinternet.com>

Mark Seaward (allocation of BLS numbers)<M.R.D.Seaward@Bradford.ac.uk>

Janet Simkin (BioBase for Lichens species tables)<j.m.simkin@ncl.ac.uk>

Add:

2437	<i>Acrocordia subglobosa</i>	Acro subg
2499	<i>Agonimia opuntiella</i>	Agon opun
2418	<i>Arthonia apatetica</i>	Arthon apat
2450	<i>Arthonia meridionalis</i>	Arthon merid
2456	<i>Buellia jugorum</i>	Buellia jugo
2442	<i>Caloplaca arcis</i>	Calo arcis
2443	<i>Caloplaca dichroa</i>	Calo dich
2460	<i>Caloplaca soralifera</i>	Calo soral
2459	<i>Caloplaca sorediella</i>	Calo soresd
2451	<i>Collemopsidium ostrearum</i>	Collemop ostr
2448	<i>Intralichen lichenicola</i> #	Intr lichenic #
2445	<i>Lecania fructigena</i>	Lecania fruc
2452	<i>Lecanographa dialeuca</i>	Lecanog dial
2458	<i>Lepraria humida</i>	Leprar humi
2427	<i>Lepraria sylvicola</i>	Leprar sylv
2447	<i>Menegazzia subsimilis</i>	Mene subs
2446	<i>Micarea hypoviolascescens</i>	Mica hypo
2453	<i>Petractis hypoleuca</i>	Petr hypo
2457	<i>Sphaerellothecium araneosum</i> var. <i>cladoniae</i> #	Sphaerell aran cla #

2438 *Strigula muscicola* *Strig musc*

Delete (correct name or notes given below, as applicable):

1849 *Arthonia myriocarpella* *Arthon myri*

NOW

413 *Arthonia mediella* *Arthon medi*

Change of genus (sometimes also species epithet):

2154 *Plectocarpon sampaianae* *Plect samp #*

NOW

2154 *Arthonia sampaianae* *Arthon samp #*

78 *Pyrenocollema bryospilum* *Pyrenoco bryo*

NOW

78 *Frigidopyrenia bryospila* *Frig bryo*

1319 *Sclerophytomyces circumscriptus* *Sclerophyt circ circ*
var. *circumscriptus*

NOW

1319 *Peterjamesia circumscripta* *Peterj circ*

2439 *Sclerophytomyces circumscriptus* *Sclerophyt circ sore*
var. *sorediatus*

NOW

2439 *Peterjamesia sorediata* *Peterj sore*

Change of rank:

[See also *Sclerophytomyces/Peterjamesia* above]

1886 *Porina borreri* var. *leptospora* *Porina borr lept*

NOW

1886 *Porina leptospora* *Porina leptos*

1307 *Sarcopyrenia gibba* # *Sarcopy gibb #*

NOW

1307 *Sarcopyrenia gibba* var. *geisleri* # *Sarcopy gibb geis #*

Change of abbreviation

2020	Intralichen lichenum #	Intr lich #
NOW		
2020	Intralichen lichenum #	Intr lichenum #
2213	Sphaerellothecium araneosum #	Sphaerell aran #
NOW		
2213	Sphaerellothecium araneosum var. araneosum #	Sphaerell aran ara #

B J Coppins, M R D Seaward & J Simkin

LITERATURE PERTAINING TO BRITISH LICHENS - 39

Lichenologist **38**(2) was published on 22 March 2006, **38**(3) on 22 May 2006, **38**(4) on 31 July 2006 and **38**(5) on 7 September 2006.

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.

COPPINS, B J & COPPINS, A M 2006. The lichens of the Scottish native pinewoods. *Forestry* **79**: 249–259. An overview of the native pinewoods as a habitat for lichens, outlining the main habitats and niches, and regional variation. It is stated that 434 epiphytic lichen taxa have been recorded, with about 219 being found on the bark, twigs or lignum of pine itself. These are not listed, but a table enumerates the 18 species so far known in the British Isles only from the pinewoods, and another table updates the table on the Native Pinewood Index of Ecological Continuity (NPIEC).

DALBY, D H [Kery] & DALBY, C 2005. *Shetland Lichens*. Lerwick: Shetland Amenity Trust. Pp 120, hardback. ISBN 0-9543246-3-3. Includes a list of c. 365 species, most annotated with brief notes on habitat and distribution (within the island group), an indication if also present in Orkney or the Faroe Islands, and with additional notes on history of recording or taxonomic problems where appropriate. UK Red-listed species are printed in red type. The book has well-illustrated introductory sections on various aspects of lichenology, and an overview of lichen habitats in Shetland. For a full review see *Lichenologist* **38**: 497–498.

FRYDAY, A M 2006. Lichens. In SHAW, P & THOMPSON, D B A, *The Nature of the Cairngorms: Diversity in a Changing Environment*. Edinburgh: The Stationery Office Ltd, pp 177–193. This chapter highlights the important habitats for lichens in the Cairngorm region, with a summary of the lichen interest at a selection of the better-worked sites. A 5-page table lists the lichen taxa whose populations in the Cairngorm area are of at least national importance; the taxa are listed by habitat, and columns give RDB status, etc. Important areas for lichens are depicted in a map, and listed with corresponding notable species in a table. The chapter ends with sections on recent research and findings, trends in abundance or distribution, and conservation issues. An appendix lists species occurring in the Cairngorm area that are Nationally Rare or Nationally Scarce, but of low conservation concern.

GRONER, U 2006. The genus *Chaenothecopsis* (*Mycocaliciaceae*) in Switzerland, and a key to the European species. *Lichenologist* **38**: 395–406.

GRUBE, M 2005. *Frigidopyrenia* – a new genus for a peculiar subarctic lichen, with notes on similar taxa. *Phyton* **45**: 305–318. *Pyrenocollema bryospila* (syn. *Collemopsidium bryospilum* (Nyl.) Coppins) is transferred to the monospecific genus *Frigidopyrenia* Grube as *F. bryospila* (Nyl.) Grube, supported by a detailed illustrated description and discussion, including comparisons (with a generic key) to *Collemopsidium*, *Pyrenocollema* and *Magnopsis*. [No British material is cited, and British collections of ‘*bryospila*’ need to be reviewed to check their identity.]

HAWKSWORTH, D L 2006. Misunderstanding the status of Ciferri & Tomaselli’s generic names necessitates *Peterjamesia* gen. nov. for *Sclerophyton circumscriptum* and an additional species. *Lichenologist* **38**: 187–190. The generic name *Sclerophytomyces* Cif. & Tomas. (and its orthographic variants *Sclerophytonomyces* and *Schelerophytonomyces*) is shown to be illegitimate, and typified by the type of *Sclerophyton* Eschw. (the corticolous *S. elegans* Eschw.). The genus *Peterjamesia* D. Hawksw. is described to accommodate the fertile British saxicolous species, as *P. circumscripta* (Taylor) D. Hawksw. (syn. *Sclerophyton circumscriptum*,

Sclerophyomyces circumscriptus), and its sorediate counterpart *P. sorediata* (Sparrius, P. James & M.A. Allen) D. Hawksw. (syn. *Sclerophyomyces circumscriptus* var. *sorediata*).

LAUNDON, J R 2006. The subspecies of *Melanelixia fuliginosa*. *Lichenologist* **38**: 277–278. A formal subspecific status in the genus *Melanelixia* is provided for the former *Melanelia fuliginosa* subsp. *glabratula* (syn. *Parmelia glabratula* subsp. *glabratula*) as *Melanelixia fuliginosa* subsp. *glabratula* (Lamy) J.R. Laundon.

PALMER, K 2006. Lichen report 2005. *Bull. Kent Field Club* **51**: 65–67. A report of lichenological investigations and notable finds in the county. These include 15 terricolous *Cladonia* spp. at Lydd Airport, and fertile *Rinodina aspersa* nearby in the Dungeness area.

ROUX, C 2005. Likenoj de Okcidenta Eŭropo. Suplemento 4a: eltiraĵoj (*extracts*). *Bull. Ass. Fr. Lichénogie* **30**(2): 5–14. Further additions and corrections to “Clauzade & Roux”. This supplement includes amendments to *Aspicila*, *Bacidia*, *Belonia* s.lat., *Caloplaca*, *Candelariella* and the ‘splits’ of *Catapyrenium* (e.g. *Catapyrenium* s. str., *Involucropyrenium* and *Placidium*).

SHAW, P & THOMPSON, D B A 2006. Patterns of species diversity in the Cairngorms. In SHAW, P & THOMPSON, D B A, *The Nature of the Cairngorms: Diversity in a Changing Environment*. Edinburgh: The Stationery Office Ltd, pp 395–411. This chapter explores the patterns of variation in species diversity and richness in the Cairngorm area, focussing on those species for which the area is considered to be nationally or internationally important. A total of 1,153 such species was identified, 28% (328 species) of which are lichens, second only to invertebrates (32%), and well above the figures for vascular plants (7%) and birds (2%).

VONDRÁK, J & HROUZEK, P 2006. *Caloplaca soralifera*, a new species from Europe. *Graphis Scripta* **18**: 6–15. Although described from central Europe, this species has since been found in England (see New Rare and Interesting in this *Bulletin*). The paper lists European and N American sorediate *Caloplaca* spp that lack anthraquinones in their thallus and soralia, and gives a tabular comparison of the new species with *C. chlorina*.

NEW, RARE AND INTERESTING LICHENS

Contributions to this section are always welcome. Submit entries to Chris Hitch, Orchella Lodge, 14, Hawthorn Close, Knodishall, Saxmundham, Suffolk, IP17 1QY, in the form of species, habitat, locality, VC no, VC name, (from 1997, nomenclature to follow that given in the appendix, see BLS *Bulletin* 79, which is based on the Biological Record Centre for instructions for Recorders, ITE, Monks Wood Experimental Station, Abbots Ripton, PE17 2LS, 1974). Grid Ref (GR) (please add letters for the 100km squares to aid BioBase and Recorder 2000 users), altitude (alt), where applicable in metres (m), date (month and year). NRI records should now include details of what the entry represents, eg specimen in Herb. E, Hitch etc., with accession number where applicable, field record or photograph, to allow for future verification if necessary or to aid paper/report writing. Determined/confirmed by, Comments, New to/the, Finally recorder. An authority with date after species is only required when the species is new to the British Isles. Records of lichens listed in the RDB are particularly welcome, even from previously known localities. In the interests of accuracy, the data should be on disc, with hard copy, or if not, then typescript. Copy should reach the subeditor at least a fortnight before the deadline for the *Bulletin* Please read these instructions carefully as the order of entry has been slightly altered.

New to the British Isles

Agonimia opuntiella (Buschardt & Poelt) Vězda (1997): growing on bryophytes on two *Quercus* trees within bracken glade in regeneration enclosure (felled conifer plantation) on south west facing slopes, Elleric, Glen Creran, VC 98, Argyll Main, GR 27(NN)/047.504, February 2006. Herb. Acton AA000126, AA000127 in E. also. Determined by B J Coppins. A southern European species of Spain, Portugal, Canary Islands, Italy, Austria, France, Poland, & Czech Republic. **BLS no. 2499.**

A Acton

Buellia jugorum (Arnold) Arnold (1884): on small pebble on exposed shingle ridge, Findhorn Dunes, Forres, VC 95, Morayshire, GR 38(NJ)/053.643, alt. <10 m, August 2006. Herb. Coppins 21812 in E. Similar to *B. ocellata* in having a C+ orange thallus, but areoles larger, convex and sometimes ± placodioid, and apothecia becoming distinctly convex; determination confirmed by the longer conidia, 7–9 × 1 µm (4–6 µm long in *B. ocellata*). *Buellia jugorum* is found in the Scandinavian mountains, Pyrenees and Alps, usually on stones and exposed pebbles in wind-exposed situations. The occurrence at sea-level at Findhorn is rather surprising, but also on pebbles at this site are *Arctoparmelia incurva*, *Lecidea auriculata*, *Pseudophebe pubescens* and *Rhizocarpon cinereovirens*, and *Alectoria sarmentosa* subsp. *vexillifera* occurs locally on sand amongst *Calluna*. **BLS no. 2456.**

A M & B J Coppins

Caloplaca soralifera Vondrák & Hrouzek (2006): abundant on sandstone pebbles between seashore and railway track, Blue Anchor, VC 5, South Somerset, GR 31(ST)/019.434, September 2006. Herb. Coppins 21802–21806 in E. This species has a thallus almost identical to that of *C. chlorina*, with pale to dark grey areoles that have marginal soralia. However, its apothecia do not have the persistent, grey thalline margin of *C. chlorina*. The apothecia have a yellow to orange margin with a darker orange to orange-brown disc. Associated species at Blue Anchor include: *Caloplaca flavocitrina*, *Lecanora campestris*, *L. dispersa*, *Lecidella scabra*, *Rinodina gennarii*, *Verrucaria dolosa* and *V. nigrescens*. *C. soralifera* was recently described from several parts of central Europe, but it is evidently more widely distributed. For a full description see Vondrák & Hrouzek, *Graphis Scripta* 18: 6–15. **BLS no. 2460**

B J & A M Coppins & P A Wolseley

Rinodina insularis Arnold Hafellner (1979): on *Lecanora rupicola* on low rock in grassland on headland, Church Bay area, VC 52, Anglesey, GR 23(SH)/296.898, alt 30m, October 2003. Herb. Hitch C9 in E. "Previously known from southern Europe (Iberian peninsula through to Greece), so Anglesey is a northern extension of its range." (B J Coppins *in litt.*). **BLS no. 2462**

C J B Hitch

Sphaerellothecium araneosum var. *cladoniae* Alstrup & Zhurb. (2004): on moribund, blackened squamules of *Cladonia subcervicornis*, Findhorn Dunes, Forres, VC 95, Morayshire, GR 38(NJ)/053.643, alt. <10 m, August 2006. Herb. Coppins 21821 in E. Also cited from Stackpole Warren, Pembrokeshire [VC 45], Wales (GR 11(SR)/98-94-) by Alstrup & Zhurbenko, *Symb. Bot. Upsal.* 34(1): 477–499, q.v. for a full description and details of distribution. Recognized by its minute \pm superficial perithecia, 45-60 μ m diam., associated with a dark brown mycelial network. **BLS no. 2457.**

B J & A M Coppins

Other records

Acrocordia cavata: at base of trunk of *Populus tremula* growing from low cliff, Dunbeath Water SSSI, VC 109, Caithness, GR 39(ND)/15-30-, August 2006. Herb. Coppins 21831 in E. New to Caithness.

B J & A M Coppins

Alectoria sarmentosa subsp. *vexillifera*: on sandy ground amongst scattered *Calluna*, Findhorn Dunes, Forres, VC 95, Morayshire, GR 38(NJ)/059.643, alt. <10 m, August 2006. Herb. Coppins 21822 in E. Only the second British occurrence at a coastal sand/shingle site.

A M & B J Coppins

Anaptychia ciliaris subsp. *ciliaris*: on mature *Acer pseudoplatanus* in lawn by Mackie Hall, Craibstone Scottish Agricultural College, VC 92, South Aberdeenshire, GR

38(NJ)/872.106, alt. 100 m, September 2006. Field record (photos taken). One healthy thallus, c 2.5 cm diam. on north-northeast side of trunk at c 1.3 m from the ground. Only 8 km from Aberdeen city centre.
B J Coppins & A Acton

Arctomia delicatula: on *Hypnum mammilatum* on old *Quercus*, Glen Nant SSSI, VC 98, Argyll Main, GR 27(NN)/01-13-, February 2006. Herb. Acton AA000147.
Confirmed by B J Coppins. A Acton

Arctomia delicatula: on bryophytes on *Quercus*, Esragan Burn woodlands, VC 98, Argyll Main, GR 17(NM)/985.365. March 2006, Herb. Acton AA000152.
A Acton & A Griffith

Arthrorhaphis muddii: on moribund *Dibaeis baeomyces* on peaty soil, edge of Pony Path, Cadair Idris, VC 48, Merionethshire, GR23(SH)693.140, alt 402m, April 2006. Herb. SPC. New to Merionethshire.
S P & H A Chambers

Arctoparmelia incurva: on small pebble on exposed shingle ridge, Findhorn Dunes, Forres, VC 95, Morayshire, GR 38(NJ)/053.643, alt. <10 m, July 2006, leg. Mrs D Thomas, Herb. Coppins 21815 in E. determined by B J Coppins. An unusual habitat for this species. It is rare at the site, although *Xanthoparmelia mougeotii* is quite abundant there.
B J & A M Coppins

Arthonia digitatae: on *Cladonia* sp. on side of *Pinus* stump, Kindrogan Wood, opposite Kindrogan Field Centre, VC 89, East Perthshire, GR 37(NO)/35-62-, alt. 280 m, April 2006. Herb. Coppins 21866 (E). As with the two previous collections (see *Bulletin* 96: 71), *Milospium lacoizquetae* was also present. New to Perthshire.
B J Coppins

Arthonia graphidicola: on *Graphis scripta* on *Corylus*, Dunbeath Water SSSI, VC 109, Caithness, GR 39(ND)/15-30-, August 2006. Herb. Coppins 21836 in E. New to Caithness.
B J & A M Coppins

Arthonia stellaris: on *Corylus*, Dunbeath Water SSSI, VC 109, Caithness, GR 39(ND)/15-30-, August 2006. Herb. Coppins 21835 in E. New to Caithness.
B J & A M Coppins

Arthonia zwackhii: parasitic on *Phlyctis argena* on old *Fagus* in *Fagus* – *Ilex* – *Quercus* pasture woodland, Little Stubby Hat, Busketts Wood, New Forest, VC 11, South Hampshire, GR41(SU)30-10-, February 1997. Herb. Sanderson 952. Second modern record from the New Forest
N A Sanderson

Arthothelium orbilliferum: on smooth bark of old *Sorbus aucuparia*, in *Betula* – *Corylus* woodland in ravine, Teanga Mheadhion, North Ballachulish, VC 97; West Inverness-shire, 27(NN)06-61-, alt. 200m, June 2006. Collected by N A Sanderson & A M Cross. Herb. Sanderson 961. First record for West Inverness-shire

N A Sanderson

Bacidia fuscoviridis: abundant (but sterile) on damp, northeast-facing, mortar-washed siliceous stonework of old railway bridge, Llanbadarn Fawr, VC 46, Cardiganshire, GR22(SN)603.805, alt 10m, March 2006. Confirmed by A Orange. Herb. SPC. New to Cardiganshire.

S P & H A Chambers

Bacidia neosquamulosa: on old *Sambucus* in coastal woodland, Torryburn, VC 85, Fife, GR 36(NT)/02-85-, alt. 10 m, April 2006, Herb. Coppins 21874 in E. New to Scotland.

B J Coppins

Caloplaca concilians: on top of table tomb in churchyard, Dunnet, VC 109, Caithness, GR 39(ND)/220.712, alt. 10 m, April 2006, Herb. Coppins 21863 in E. New to Caithness and fifth modern British record.

B J Coppins

Caloplaca obliterans: locally abundant on vertical rocks in underhangs of south-facing cliff, Dunbeath Water SSSI, VC 109, Caithness, GR 39(ND)/14-30-, alt. 50 m, August 2006. Herb. Coppins 21837 in E. New to Caithness.

B J & A M Coppins

Caloplaca virescens: on *Ulmus* stump in hedge, beside the A 13, Southend-on-Sea, VC 18, South Essex, GR 51(TQ)/894.872, September 2006.

P M Earland-Bennett

Calvitimela aglaea: on top of large boulder, Habbies Howe – Logan Burn SSSI, Pentland Hills, VC 83, Midlothian, 36(NT)/18-61-, alt. c. 300 m, July 2006, Herb. Coppins 21889 in E. New to the Lothians.

B J Coppins & J R Douglass

Candelariella vitellina f. *flavovirella*: on tombstone in churchyard, Morton, VC 53, South Lincolnshire, GR 53(TF)/079.239, July 2006. Herb. MRDS. New to the vice county.

M R D Seaward

Catapyrenium pilosellum: on old 19th century chalk spoil heaps in very open chalk grassland, Micheldever Spoil Heaps, North Hampshire VC 12, GR 41(SU)51-44-, May 2006. A M Cross & N A Sanderson. Herb. Sanderson 956. New to Hampshire.

N A Sanderson

Cladonia cyathomorpha: on large boulder, Habbies Howe – Logan Burn SSSI, Pentland Hills, VC 83, Midlothian, GR 36(NT)/18-61-, alt. c. 300 m, July 2006, Herb. Coppins 21892 in E. New to the Lothians. B J Coppins & J R Douglass

Cladonia macrophylla: in dry *Calluna vulgaris* heath at Tulach Hill, Blair Atholl, VC 88, Mid Perthshire, GR 27(NN)/8314.6407, August 2006. Herb. Acton AA000146. Confirmed by B J Coppins. A Acton & A Griffith

Cladonia peziziformis: on previously burnt coastal *Calluna*-heath, Rhossili Down, Gower, VC 41, Glamorgan, GR 21(SS)/419892, alt 180m, April 2006. Herb. SPC. New to Glamorgan. Ten patches (3 fertile) seen in 5 mins over an area c. 20 x 30m. S P Chambers

Cladonia symphyrcarpia: on old 19th century chalk spoil heaps in very open chalk grassland, Micheldever Spoil Heaps, North Hampshire VC 12, GR 41(SU)/51-44-, May 2006. A M Cross & N A Sanderson, Herb. Sanderson 955. First record for south eastern England. N A Sanderson

Cladonia uncialis subsp. *uncialis*: in dry *Calluna vulgaris* heath and in *Calluna vulgaris-Erica tetralix-Trichophorum cespitosum* heath at Tulach Hill, Blair Atholl, VC 88, Mid Perthshire, GR 27(NN)/8315.6405 and 27(NN)/8311.6383, August 2006. Herb. Acton AA000144 & AA000145. Confirmed by B J Coppins. A Acton & A Griffith

Collembosidium angermannicum: on splashed Silurian pencil-shales at margin of upland riverbed, Afon Ystwyth, Cwmystwyth, VC 46, Cardiganshire, GR22(SN)/845757, alt 330m, February 2006. Herb. SPC. Determined by A Orange. New to Cardiganshire. S P Chambers

Degelia atlantica: on two stools of *Corylus*, Dunbeath Water SSSI, VC 109, Caithness, GR 39(ND)/15-30-, April 2006. Field record. New to Caithness. B J & A M Coppins

Degelia ligulata: on coastal rocks with *Nephroma laevigatum*, North Colonsay SSSI, Isle of Colonsay, VC 102, South Ebudes, GR 16(NR)/404.990, September 2005. Herb. Acton AA000137. Confirmed by B J Coppins. Previously recorded in the British Isles from only 3 10km squares in west Scotland, 2 in southwest Wales and 16 in southwest, west & northwest Ireland. A Acton & A Griffith

Endococcus parietinarius: (i) on *Xanthoria parietina* on east side of concrete railway post, Capel Bangor, VC 46, Cardiganshire, GR 22(SN)/649.798, alt 20m, April 2006;

(ii) on *X. parietina* on seven marble headstones dating from the 1880s, Llanrhystud in graveyard, VC 46, Cardiganshire, GR 22(SN)/537.696, alt 15m, May 2006; (iii) on *X. parietina* on southwest-facing wall of barn, Rhos Fullbrook, VC 46, Cardiganshire, GR 22(SN)/666.628, alt 180m, September 2006. All Herb.SPC. New for Cardiganshire
S P Chambers

Eopyrenula avellanae: on *Ilex aquifolium*, Glen Nant SSSI, VC 98, Argyll Main, GR 27(NN)/017.274, February 2006. Herb. Acton AA000140. Confirmed by B J Coppins. Possibly a first record on anything other than hazel (Brian Coppins, pers. comm.).

A Acton

Fellhaneropsis vezdae: abundant at base of mature *Picea sitchensis* in mixed policy woodland, Achvarisdale, Reay, VC 109, Caithness, GR 29(NC)/98-64-, alt. 30m, April 2006, Herb. Coppins 21858 in E. New to Caithness.

B J & A M Coppins

Fuscidea arboricola: on bark of ancient *Pinus sylvestris* in native *Pinus* stand on cliff within *Quercus* - *Betula* woodland, north shore of Loch Leven, VC 97, West Inverness-shire, GR 27(NN)/13-61-, June 2006. Herb. Sanderson 957. Appears to be the second record for West Inverness-shire.

N A Sanderson

Gomphillus calycioides: on *Corylus* in Coille Gaireallach, Strath Suardal, Skye, VC 104, North Ebudes, GR 18(NG)/597.197. May 2006. Field record.

A Acton & A Griffith

Gyalidea fritzei: locally abundant on stones by recently made track (c. 3 years) through conifer plantation, Fearnoch Forest, Taynuilt, VC 98, Argyll Main, GR 17(NM)/967.317, alt. 50m, August 2006, Herb. Coppins 21827 in E.

B J & A M Coppins & A Acton

Gyalidea hyalinescens: locally abundant on stones by recently made track (c. 3 years) through conifer plantation, Fearnoch Forest, Taynuilt, VC 98, Argyll Main, GR 17(NM)/967.317, alt. 50m, August 2006. Herb. Acton AA000139. New to Argyll and third UK record.

B J & A M Coppins & A Acton

Lecania subfuscata: with *Lecanora zosteriae* on turf by track, Coul Links, Loch Fleet, VC 107, East Sutherland, GR 28(NH)/807.952, August 2006. Herb. Coppins 21823 in E. New to East Sutherland, and fourth Scottish record.

B J & A M Coppins

Lecanora albella: on *Salix* in Gleann Salach, VC 98, Argyll Main, GR 17(NM)/985.358, March 2006. Herb. Acton AA000131 in E. Confirmed by B J Coppins. Only the second confirmed record for Scotland. (B J Coppins, pers. comm.).

A Acton

Lecanora cinereofusca: (i) on *Corylus*, Glen Nant SSSI, VC 98, Argyll Main, GR 27(NN)/011.282, February 2006. Herb. Acton AA000122. Confirmed by B J Coppins. Previously recorded in Britain only from two other sites in Argyll (Glen Creran, compare above, and Glen Stockdale) and one in West Inverness-shire (Resipole Ravine). (ii) recorded on several *Corylus* stools in the Eas an Daimh ravine, Glen Creran, VC 98, Argyll Main, at GR 17(NM)/995.452, 17(NM)/995.453 & 17(NM)/995.456, February 2006. Herb. Acton AA000149, AA000150 and AA000151. Also with *Leptogium cochleatum* and *Leptogium hibernicum*.

A Acton & G Griffiths

Lecanora confusa: on *Acer platanoides*, at edge of supermarket car park, near centre of Grimsby, VC 54, North Lincolnshire, GR 54(TA)/26-09-, April 2006. Herb. MRDS. Confirmed by B J Coppins. New to the county.

M R D Seaward

Lecanora sambuci: one small patch on corky, well-lit bark of decrepit *Sambucus nigra*, with abundant *Caloplaca cerina*, in coastal scrub, Y Foel, Llanrhystud, VC 46, Cardiganshire, GR 22(SN)541.694, alt. 75m, June 2006. Confirmed by A Orange. Herb. SPC. First recent record for the county since 1973 by P W James at Mwtnt.

S P Chambers

Lecanora sublivescens: on *Fraxinus*, Grimsthorpe Park, VC 53, South Lincolnshire, GR 53(TF)/03-21-, July 2006. Herb. MRDS. Determined by B J Coppins. New to the county and a significant extension to its distribution in eastern England.

M R D Seaward

Lecanora zosteræ: with *Lecania subfuscata* on turf by track, Coul Links, Loch Fleet, VC 107, East Sutherland, GR 28(NH)/807.952, August 2006. Herb. Coppins 21823 (in E, *sub Lecania subfuscata*). New to East Sutherland.

B J & A M Coppins

Lecidea erythrophæa: on trunks of *Populus tremula*, Dunbeath Water SSSI, VC 109, Caithness, GR 39(ND)/15-30-, August 2006. Herb. Coppins 21833 in E. New to Caithness.

B J & A M Coppins

Lecidea sanguineoatra: on base of trunk of 'phoenix' *Populus tremula*, Dunbeath Water SSSI, VC 109, Caithness, GR 39(ND)/15-30-, August 2006. Field record. New to Caithness.
B J & A M Coppins

Leptogium cochleatum: for details see under *Lecanora cinerofusca*.

Leptogium hibernicum: for details see under *Lecanora cinerofusca*.

Leptogium palmatum: in short turf at top of low bank in wide valley bottom, Wide Hope, Lammermuir Hills, VC 82, East Lothian, GR 36(NT)/712.695, alt. 205m, July 2006, Herb. Coppins 21894 in E. Second record for the Lothians.
B J Coppins

Lichenochora obscuroides: on *Physcia aipolia* on shaded *Fagus sylvatica* bough in woodland, Y Foel, Llanrhystud, VC46, Cardiganshire, GR 22(SN)/540.694, alt. 55m, June 2006. Determined by A Orange. Herb. SPC. New to Wales.
S P Chambers

Lobaria virens: on vertical rocks in cleft in cliff, Dunbeath Water SSSI, VC 109, Caithness, GR 39(ND)/151.304, April 2006, Herb. Coppins 21853 in E. New to Caithness.
B J & A M Coppins

Macentina abscondita: on stem of a small *Hebe* sp. (cf. *H. traversii*), with *Lecania cyrtella*, in shrubbery in Waitrose supermarket car park, Southend-on-Sea, VC 18, South Essex, GR 51(TQ)/891.877, September 2006. Herb. STD. New to Essex.
P M Earland-Bennett

Marchandiomyces aurantiacus: on *Physcia tenella* on young *Fraxinus* at entrance to Waitrose supermarket car park, Southend-on Sea, VC 18, South Essex, GR 51(TQ)/891.877, September 2006. Herb. PME-B and STD. New to Essex.
P M Earland-Bennett

Megalaria laureri: two thalli in rain track on ancient *Fagus*, in *Fagus* – *Ilex* pasture woodland, Pond Hill, Mark Ash Wood, New Forest, VC 11 South Hampshire, GR 41(SU)/24-07-, January 2006. A M Cross, N A Sanderson & B Edwards. On a tree in a new part of Mark Ash Wood.
N A Sanderson

Menegazzia subsimilis: on *Betula pubescens*, Kinloch Woods, part of Kinloch & Kyleakin Hills SSSI, Skye, VC 104, North Ebudes, GR 18(NG)/711.152, May 2006. Herb. Acton AA000136 in E. Confirmed by B J Coppins.
A Acton

Micarea lapillicola: locally abundant on stones by recently made track (c. 3 years) through conifer plantation, Fearnoch Forest, Taynuilt, VC 98, Argyll Main, GR 17(NM)/967.317, alt. 50m, August 2006. Herb. Coppins 21826 in E. New to Argyll and fourth British record.
B J & A M Coppins & A Acton

Micarea lithinella: locally frequent on stones by recently made track (c. 3 years) through conifer plantation, Fearnoch Forest, Taynuilt, VC 98, Argyll Main, GR 17(NM)/967.317, alt. 50m, August 2006. Herb. Coppins 21824 in E, Herb. Acton AA000139. Apothecia seen to vary from pallid to dark reddish brown. New to Argyll.
B J & A M Coppins & A Acton

Micarea ternaria: occasional on stones by recently made track (c. 3 years) through conifer plantation, Fearnoch Forest, Taynuilt, VC 98, Argyll Main, GR 17(NM)/967.317, alt. 50m, August 2006. Herb. Coppins 21825 in E. New to Argyll.
B J & A M Coppins & A Acton

Micarea xanthonica: (i) on acidic bark on old *Quercus* in two places in *Fagus - Quercus - Ilex* Pasture woodland, Bramshaw Wood, New Forest, VC11 South Hampshire, GR 41(SU)/25-16-, April 2006, confirmed B J Coppins. Herb. Sanderson 953 & 954. (ii) on lignum on fallen *Quercus* in *Quercus - Ilex* pasture woodland, Frame Wood, New Forest, VC 11, South Hampshire, GR 41(SU)/36-03-, A M Cross & N A Sanderson, April 2006. First records for Hampshire for this oceanic species.
N A Sanderson

Moelleropsis nebulosa: on turf/soil cap of low cliff, Dunbeath Water SSSI, VC 109, Caithness, GR 39(ND)/151.304, April 2006. Herb. Coppins 21855 in E. New to Caithness.
B J & A M Coppins

Mycomicrothelia atlantica: on young stems of old *Corylus* bush, in small stream gully in acidic *Quercus - Betula* woodland, north shore of Loch Leven, West Inverness-shire, VC97, GR 27(NN)/13-61-, June 2006. Herb. Sanderson 958. New to West Inverness-shire.
N A Sanderson

Opegrapha physciaria: on *Xanthoria parietina* on *Salix cinerea* branch in willow scrub, Ynyslas dunes, VC 46, Cardiganshire, GR 22(SN)611.938, alt c. 1m, May 2006. Herb. SPC. Determined by A Orange. New to Cardiganshire.
H F Clow & S P Chambers

Opegrapha pulvinata: on shady side of large shaded carboniferous limestone block in woodland, Grass Wood, Grassington, VC 64, Mid-West Yorkshire, GR 34(SD)/984.653, September 2005. Determined by B J Coppins. C J B Hitch

Parmeliella parvula: on base of trunk of 'phoenix' *Populus tremula*, Dunbeath Water SSSI, VC 109, Caithness, GR 39(ND)/15-30-, August 2006. Field record. New to Caithness. B J & A M Coppins

Parmotrema reticulatum: on several *Betula pubescens* trees in *Betula* carr woodland, Glasdrum NNR, Glen Creran, VC 98, Argyll Main, GR 27(NN)/003.458, February 2006, Herb. Acton AA000138. A Acton

Peltigera malacea: on low sand bank, Findhorn Dunes, Forres, VC 95, Morayshire, GR 38(NJ)/051.643 and 38(NJ)/059.643, alt. <10m, August 2006, Herb. Coppins 21819 in E. B J & A M Coppins

Pertusaria melanochlora: on sheltered, vertical, southeast-facing side of massive boulder, Marchlyn Mawr, below Pillar of Elidir, VC 49, Caernarvonshire, GR 23(SH)/615.617, alt 630m, June 2006. Herb. SPC. First Welsh record since pre-1900 when it was reported on schist in Merionethshire – see RDB (Church *et al.* 1996). S P Chambers

Phacopsis huuskonenii: on *Bryoria subcana* on fallen conifer twigs, Reelig Glen, Moniak Gorge SSSI, VC 96, East Inverness-shire, GR 28(NH)/55-42-, alt. 50m, May 2006, Herb. Coppins 21864, in E. A M Coppins

Phaeophyscia sciastra: above mid-channel point of river on road bridge coping stone, Pont ar Ithon, Newbridge-on-Wye, VC 43, Radnorshire, GR 32(SO)/019.572, alt 150m, November 2005. Herb. SPC. New to Radnorshire. S P Chambers & S R Davey

Platismatia norvegica: on *Betula pubescens* on a wooded island, Eilean Iubhair, Loch Laidon, Rannoch Moor, VC 88, Mid Perthshire, GR 27 (NN)/373.538, May 2006. Field record. A Acton

Plectocarpon scrobiculatae: on thallus of *Lobaria scrobiculata* on *Corylus*, Dunbeath Water SSSI, VC 109, Caithness, GR 39(ND)/15-30-, April 2006, Herb. Coppins 21880 in E. New to Caithness. B J & A M Coppins

Polychidium dendriscum: (i) on several *Betula pubescens* trees and one *Quercus*, Glen Nant SSSI, VC 98, Argyll Main, GR 27(NN)/011.282, Herb. Acton AA000153, AA000154 & AA000125, and on *Corylus* in ravine hazelwood at GR 27(NN)/0112.2813, all February 2006. Herb. Acton AA000155. (ii) on two *Betula pubescens* trees, Esragan Burn woodlands, VC 98, Argyll Main, GR 17(NM)/9861.3657, March 2006. Field record.
A Acton & A Griffith

Porina coralloidea: on *Quercus* at Tollie Bay, at west end of Loch Maree, VC 105, West Ross, GR 18(NG)/867.781, October 2005. Herb. Acton AA000143. Confirmed by B J Coppins.
A Acton

Porpidia flavocruenta: on boulders in scree, Lamb Burn, Lammermuir Hills, VC 82, East Lothian, GR 36(NT)/604.630, alt. 350m, June 2006, Herb. Coppins 21847 in E. New to the Lothians.
B J & A M Coppins

Porpidia speirea: on east-facing crags, Habbies Howe – Logan Burn SSSI, Pentland Hills, VC 83, Midlothian, GR 36(NT)/18-61-, alt. c 300m, July 2006, Herb. Coppins 21883 (E). New to the Lothians.
B J Coppins & J R Douglass

Protopannaria pezizoides: on base of trunk of 'phoenix' *Populus tremula*, Dunbeath Water SSSI, VC 109, Caithness, GR 39(ND)/15-30-, August 2006. Field record. New to Caithness.
B J & A M Coppins

Pseudephebe pubescens: on small pebble on exposed shingle ridge, Findhorn Dunes, Forres, VC 95, Morayshire, GR 38(NJ)/053.643, alt. <10m, August 2006. Herb. Coppins 21818 in E. Unusual low altitude occurrence of this submontane species.
B J & A M Coppins

Pyrenula hibernica: recorded on 27 *Corylus avellanae* stools in the Eas an Daimh ravine, Glen Creran, VC 98, Argyll Main, GR 17(NM)/994.453, February 2006. Field record. Also with *Leptogium cochleatum* and *Leptogium hibernicum*.
A Acton & A Griffith

Ramonia dictyospora: on *Fraxinus* in mixed policy woodland, Achvarisdale, Reay, VC 109, Caithness, GR 29(NC)/98-64-, alt. 30 m, April 2006. Herb. Coppins 21857 in E. New to Caithness and eighth Scottish record.
B J & A M Coppins

Rhizocarpon cinereovirens: locally abundant on small pebbles on exposed shingle ridge, Findhorn Dunes, Forres, VC 95, Morayshire, GR 38(NJ)/053.643, alt. <10 m, August 2006, Herb. Coppins 21818 in E.
B J & A M Coppins

Rhizocarpon geographicum: an albino (pure white) thallus on pebble on valley bottom, Wide Hope, Lammermuir Hills, VC 82, East Lothian, GR 36(NT)/708.692, alt. 235m, July 2006. Herb. Coppins 21904 in E. B J Coppins

Rhizocarpon hochstetteri s.str.: on top of large boulder, Habbies Howe – Logan Burn SSSI, Pentland Hills, VC 83, Midlothian, GR 36(NT)/18-61-, alt. c. 300m, July 2006. Herb. Coppins 21891 in E. New to the Lothians. B J Coppins & J R Douglass

Rhizocarpon lecanorinum: on wooden fence rail, directly south-facing, in field beside the A470(T) near Cwmbach Llechryd, VC 43, Radnorshire, GR 32(SO)/023.944, alt 170m, November 2005. Field record. An unusual lignicolous occurrence. S P Chambers & S R Davey

Rinodina aspersa: on low igneous outcrop, Llandegley rocks, VC 43, Radnorshire, GR 32(SO)/136.626, alt 280m, March 2006. Herb. SPC. New to Radnorshire. S P Chambers & Welsh Lichen Group

Sagediopsis barbara: on thallus of *Porpidia rugosa*, on E-facing crags, Habbies Howe – Logan Burn SSSI, Pentland Hills, VC 83, Midlothian, 36(NT)/18-61-, alt. c 300m, July 2006. Herb. Coppins 21881 (E). New to the Lothians. B J Coppins & J R Douglass

Sagediopsis lomnitzensis: abundant on *Ionaspis lacustris* on Silurian shale in river bed, Afon Ystwyth, Cwmystwyth, VC 46, Cardiganshire, GR 22(SN)/845.757, alt 330m, February 2006. Herb. SPC. Confirmed by A Orange. New to Cardiganshire. S P Chambers

Scoliciosporum curvatum: on leaves of *Rhododendron* sp., Macaulay Land-Use Research Institute, Craigiebuckler, Aberdeen, VC 92, South Aberdeenshire, GR 38(NJ)/90-04-, alt. 75m, 27 July 2006. Herb. Coppins 21869 in E. New to Aberdeenshire. B J Coppins

Sphinctrina tubiformis: on *Pertusaria pseudocorallina*, on coastal rock outcrop, Trwyn y Tal, Trefor, VC 49, Caernarfonshire, GR 23(SH)/370.474, alt 30m, June 2006. Herb. SPC. Determined by A Orange. First record for Caernarfonshire. S P Chambers & Welsh Lichen Group

Stigmidium solorinarium: on *Solorina saccata* on basic volcanics, above Llyn Bach, Cwm Glas, Garnedd Ugain, VC 49, Caernarfonshire, GR 23(SH)/615.554, alt 800m, October 1994. Herb. SPC – recently determined. New to Wales. S P Chambers

Strangospora microhaema: on two *Betula pubescens* trees, Esragan Burn woodlands, Argyll Main, GR 17(NM)/9860.3655, March 2006. Herb. Acton AA000141 & AA000142. Confirmed B J Coppins.
A Acton & A Griffith

Strangospora moriformis: on bark of *Pinus sylvestris* in native *Pinus* stand on cliff within *Quercus* - *Betula* woodland, Allt Nathach, north shore of Loch Leven, West Inverness-shire, VC97, 27(NN)/16-62-, coll. N A Sanderson & A M Cross, June 2006, det. B J Coppins. Herb. Sanderson 959. First record for West Inverness-shire of a species rare in the West Highlands.
N A Sanderson

Strigula taylorii: on base of trunk of *Populus tremula* growing from low cliff, Dunbeath Water SSSI, VC 109, Caithness, GR 39(ND)/15-30-, 8 August 2006. Herb. Coppins 21831 in E, *sub Acrocordia cavata*. New to Caithness.
B J & A M Coppins

Synalissa symphorea: rare in fissure on steeply sloping limestone face, Overton Cliff, Gower, VC 41, Glamorgan, GR 21(SS)/457.848, alt 30m, April 2006. Herb. SPC. New to Glamorgan.
S P Chambers

Verrucaria latebrosa: on submerged rocks of a stream, Allt a' Ghlinne, Gleann Salach, VC 98, Argyll Main, GR 17(NM)/984.361, October 2005. Field record. Determined by Alan Orange. Currently known only from five other sites in Scotland, including one other site in Argyll - on Lismore..
John Douglass

Verrucaria rosula ad int.: on horizontal rock slab in river gorge, Cwm Cletwr, VC 46, Cardiganshire, GR 22(SN)/670.919, alt 100m, May 2000. Herb. SPC. Confirmed by A Orange. New to Cardiganshire.
S P Chambers

A NEW LICHEN WEBSITE

A new website started on 21 June this year.

www.uklichens.co.uk

The site is in early development. The main intention is to provide photos to aid beginner and improving 'licheneers' with their identification.

So far there are just over 100 species on the site provided by several different people so there is a very long way to go. Please send me your own digital photos (author's name is credited) to include on the site. This can be new species or better examples/variants of existing species, or even a picturesque shot for the 'arty' page!

You are welcome to download pictures for your own use/presentations etc.

Send photos (and brief details of habitat and location if known) to;
mail@uklichens.co.uk or masutcliffe@hotmail.com

Mike Sutcliffe

DIE FLECHTEN KAERTENS

The recent book 'Die Flechten Kärtens' by Roman Türk et al. has over 200 excellent colour photographs of high mountain species in alpine habitats in Austria. It covers an excellent range of species, some common in Britain but also species not illustrated elsewhere e.g. species of *Bellemeria*. If you are interested there is copy at a special price of £24.50 plus P & P from Broadleaf Books broadleafbooks1@aol.com (see also website www.broadleafbooks.co.uk).

For a review see *Lichenologist* 37 275.

David Hill

SOCIETY BUSINESS

BRITISH LICHEN SOCIETY MEETING, SWINSCOW LECTURE and ANNUAL GENERAL MEETING, 12-14 JANUARY 2007

FLETT THEATRE, NATURAL HISTORY MUSEUM, CROMWELL ROAD LONDON

Nominations

Nominations for Officers for 2007 and three members of Council for the period 2007-2010 should be sent in writing to the Secretary, c/o Department of Botany, The Natural History Museum, Cromwell Road, London SW7 5BD before 13 December 2006. No person may be nominated without their consent. Alan Orange, John Skinner and Gill Stevens retire from Council and are not eligible for re-election as Council members.

Council Meeting

Council will meet at **14.00 on Friday 12 January 2007** in the Board Room of the Natural History Museum. Please let the Secretary have any items you wish Council to discuss by 13th December, 2006.

Lichenological Exhibition and Soirée

The foyer of the Flett Theatre is reserved to put up exhibits of lichen interest from 14.00, **Friday 12 January** onwards. This is an opportunity for members to see what you are doing so please contribute items to this. Display boards and tables will be available but we need to organise this well before the meeting so please let Scott LaGreca know the subject and/or title of your exhibit and space required (e.g table, electrical or internet connection) **by 14 December, 2006**.

From 17.00 on Friday there will be a preview of exhibits, and the exhibition will continue until the end of the AGM meeting on Saturday. You are also welcome to contribute items to the exhibition on Saturday morning after 9.00.! If you have books for the book auction, which will take place between the buffet and lecture, please bring these with you and hand them to Mark Seaward between 17.00 and 18.00. 25% of the proceeds from the sale goes to the BLS.

This year the Swinscow lecture will given by Allan Green in the Flett Theatre at 19.45. A buffet supper will be served in the foyer from 18.30 for £16.00 including a glass of wine or other drinks, so please fill in the enclosed form and return it to the secretary **by 14 December** if you wish to have a meal!

Dougal Swinscow lecture in the Flett theatre at 19.45.

Lichens in Antarctica: what controls their distribution and how extreme are conditions?

Dr Allan Green, Waikato University, New Zealand.

In recent years there has been growing interest in determining what factors control changes in terrestrial biodiversity with latitude in Antarctica. The underlying aim in most research is to predict regional sensitivity to the impacts of climate change using, in part, the existing clines in biodiversity as a proxy for future climate changes. Put simply, at any site the expected community after climate change will already exist elsewhere on the cline.

Results will be presented from several New Zealand studies which have been carried out over a latitudinal range from 72° to 84° South. An important general question is whether the existing biodiversity is actually in some sort of equilibrium with the environment. If the answer is no, then the ability to predict change is much more difficult. For example, lichen biodiversity does not support a cline with latitude within the Ross Sea region. Physiological studies have also been difficult to apply to predicting change because inter-annual variation at one site can exceed the latitudinal variation between sites. There is some evidence that the lichens and mosses show little adaptation and may just be surviving in suitable microclimates. Added to these problems is the importance of history. Populations may not represent recent colonisations but may be relics from some previous time or with their distributions reflecting historic rather than present situations.

Overall, it appears that the lichen biodiversity represents an unexpectedly complex situation rather than forming an orderly cline with latitude.

ANNUAL GENERAL MEETING/EXHIBITIONS/LECTURE MEETING

Saturday, 13 January, 2007

The Annual General Meeting will be held in the Flett Theatre of the Natural History Museum, London SW7 5BD at 10.30 on Saturday 13 January 2007. The entrance to the Flett Theatre is from Exhibition Road from 9.30 as the public entrance to the Museum is not open until 10.

Programme

- 09.45 Reception and coffee will be served in the foyer of the Flett Theatre
- 10.30 Annual General Meeting

AGENDA

1. Apologies for absence
2. Minutes of the Annual General Meeting January 2006
3. Matters arising
4. BLS Constitution amendments
5. Officers and Committee Chair Reports
6. Ursula Duncan Award
7. Field Meetings 2007-2008
8. Election of Officers and four members of Council
9. Any other business
10. Date and place of next AGM

12.45 Lunch (to be taken in the staff canteen or at local venues)
(Exhibits will still be on view until Close of Lecture Meeting)

Lecture Meeting: Lichens in Extreme Conditions:

These three lectures will carry on the theme from the Swinscow lecture and investigate how lichens are adapted to survive in extreme conditions of temperature and/or moisture, from the extreme cold of Antarctica, to the extreme heat and drought of deserts, as well as the hot and wet tropics. We hope to inspire you to investigate lichen survival in extreme conditions in the UK.

14.00 – 14.45 **Peter Crittenden - Sitting gathering dust - lichens and nutrients**

Lichens grow in habitats that frequently dry out and often experience extremes of temperature. In addition, most lichen habitats are also deficient in important plant nutrients such as nitrogen and phosphorus. However, since lichens grow so slowly it has seemed unlikely that their growth could be limited by a deficiency of nutrients. This possibility is examined in this lecture drawing evidence from lichens species such as *Cladonia stellaris* in the boreal forest, *C. portentosa* in British heathlands and *Usnea sphacelata* in the Antarctic.

14.45 - 15.30 **To be arranged**

15.30 - 16.00 Tea

16.00 – 16.45 **Pat Wolseley – Some like it hot, lichens in tropical forests of SE Asia**

In a tropical forest lichens can be almost permanently hot and wet. How do lichens cope with extreme conditions of moisture and heat? When fires sweep through oil-rich evergreen vegetation in the tropics do any lichens survive, and if so which lichens are better suited to survive extreme heat? Evergreen leaves in the tropics offer a suitable substrate for a great diversity of lichens but these species must complete their life cycle during the life of the leaf. This lecture will explore some adaptations of lichens to tropical conditions in rain and monsoon forests of SE Asia.

17.00

CLOSE

Sunday 14 January Field Excursion

A visit with Jack Laundon to Bookham Common, in order to assess the changes in the lichen communities, which have occurred since he recorded this site in the 1950s. Details of the arrangements to be provided at the AGM.

Accommodation for the AGM weekend

Here are some suggestions for accommodation in London near the Natural History Museum for the AGM weekend, ranging from dormitory accommodation (4-8 people) at the YHA at 38 Bolton Gardens at £20 a night including breakfast, tel 0207373 7083 to the Eden Plaza Hotel at 65-67 Queen's Gate, SW7 (0207370 6111 edenplaza@crystalhotels.co.uk), where you should ask for NHM rates at £55 for a single room. Other places in the vicinity with prices from £39 a night for a single room include Curzon House Hotel at 58 Courtfield Gardens SW5 (0207373 6745 info@curzonhousehotel.co.uk) and Hotel Olympia at 49 Earls Court Square SW5 (0207370 3419, info@hotelolympia.co.uk). Baden Powell House at 65-67 Queens Gate has twin rooms at £49 and dormitory accommodation at £20 a night including breakfast (0207584 7031, bph.hostel@scout.org.uk). Please check prices and whether places have a weekend reduction for Friday and Saturday nights.

SECRETARY'S REPORT 2006

The British Lichen Society experienced another great loss this year with the death of Francis Rose, known as the 'grand old man' of British botany. Francis was not just a lichenologist; he was also a brilliant naturalist and teacher. He published prolifically throughout his life, not only on lichens, but on plant geography, forest conservation

and the well-used Wildflower Key. Lichenologically, he is perhaps best remembered for his wide-ranging lichen surveys of important British woodlands which resulted in his index of ecological continuity as well as his oft-cited "Hawksworth & Rose" pollution scale, originally published in the journal *Nature* in 1970. Francis spent his later years working on a great variety of projects, so that his recent illness and death has come as a shock to many people who have worked with him over the years.

BLS membership is healthy, with 646 total members, including 341 in the UK and Ireland and 305 in the rest of the world. This represents a substantial increase (42) from the previous year. Subscription to the Society via Paypal has been introduced successfully, greatly facilitating dues payment by overseas members. Things were more chaotic than usual at the NHM in January 2006, with the resignation of Will Stevens as Membership Secretary and Assistant Treasurer. This important Society role was assumed by Pat and me, and thereafter by Don Chapman who has now agreed to take on the role of Assistant Treasurer. Thank you Don! Other 'Officer' roles that are currently vacant are Treasurer and Assistant Treasurer. If you are financially inclined, we would welcome your services in this capacity.

Three Council meetings were held this year, all at The Natural History Museum, London. Three field meetings also took place: one in Sierra de Guadarrama, Spain (organised by David Hawksworth); a pyrenocarp workshop in Blencathra (taught by Alan Orange); and a *Ramalina* and *Usnea* workshop in Devon (taught by Peter James and Barbara Benfield). Accounts of these field meetings (aside from the Devon workshop, which has not yet taken place as of this writing) can be found in the Field Secretary's report, elsewhere in this Bulletin.

Work on the 2nd edition of *The Lichen Flora of Great Britain and Ireland* proceeded apace, with Tony Fletcher, Peter James, Cliff Smith and Pat Wolseley as organisers. Thanks to support from English Nature and the Natural History Museum the team were able to appoint Andre Aptroot as their librarian researcher, and he has already dug up many important protologues and other critical literature for use in the project. Key-testing workshops took place in Leicester and Edinburgh. These workshops are designed to provide feedback for Tony et al. on the utility of the Flora keys, and provide a forum to discuss any problems encountered by users.

The Society enjoyed many exciting developments over the past year. The most innovative was perhaps John Douglass' sensational new "Secret Life of Lichens" exhibit (funded in part by the Society) at the Chatelherault Country Park, Hamilton, South Lanarkshire. The images used are truly stunning; other features include showcases of products derived from lichens, games for children ("lichudo"), as well as

microscopes. This exhibition is now travelling to other venues, so please contact John if you have any other suggestions [John.Douglass@southlanarkshire.gsx.gov.uk].

This past year also saw the conclusion of the three-year Scottish Natural History lichen project, headed up by Sandy and Brian Coppins with data management by Janet Simkin. The membership will be happy to note that the British Lichen Society's expenditures were kept at a minimum—thanks in large part to free labour from Brian, Bernard Abbott, Stephen Ward and Sandy.

Future events

At present the British Lichen Society's website is being re-designed by Julian Simpson with assistance from David Hill, Jacqui Middleton, Barbara Hilton, Ann Allen, and others. The website represents the 'public face' of the Society, and as such it is extremely important to keep it current and lively. The new website should be online by the time that you read this.

2007 will also bring some welcome changes for our journal, *The Lichenologist*. Council has approved our Senior Editor's request to archive all issues and make them available online to members. Of course, this will take some time, but we are keen to make great progress on this in 2007. The coming year will also see the advent of online article submissions to the journal, which will greatly reduce the unnecessarily heavy workload currently shouldered by the Editors.

Apart from the field meetings in Britain 2007 will see another field meeting outside Britain to which BLS members are cordially invited. Canadian member Stephen Clayden (New Brunswick) is organising the 16th Tuckerman Lichen Workshop in Newfoundland, Canada. Details of this Workshop (and other 2007 field meetings) can be found elsewhere in this issue.

The 2007 AGM will take place at The Natural History Museum, London with the theme "Lichens of Extreme Environments". The following year, 2008, marks the 50th anniversary of The British Lichen Society. The AGM that year—also in London—will feature keynote talks on Lichens and Climate Change, Lichenology in the Molecular Era, and 'Looking Back' (a BLS retrospective delivered by BLS Archivist Mark Seaward). In addition, later that year, a special "anniversary" reception for BLS members will be held at the 6th International Association for Lichenology meeting in Asilomar, California.

Scott LaGreca

THE NEW CONSTITUTION

Members were asked for suggestions on the proposed constitution when it was printed in the summer Bulletin. As we received no comments we assume that the membership is satisfied with its proposed form and we therefore sent them on to the Charity Commissioners for their approval.

Since that time the only changes have been to rules 6, 8 and 11. In rules 6 and 8 we have finalised who should be the officers and members of Council. In addition, the Charity Commission quickly approved all the clauses except number 11. They said: "It is not our policy to authorise a general power to remunerate trustees until such time as a case supporting the inclusion of such a power has been submitted. You may recall that on a previous occasion we authorized the remuneration of a trustee by way of an Order and generally we consider such matters on a case by case basis."

Following further correspondence with the Charity Commission, the working party decided that, as payment for work done by trustees was relatively rare, we should continue to request permission from them on each occasion. Our suggested revision is therefore given in clause 11 below where the new first phrase covers the requirements of the Charity Commission. At some time in the future we may have to look at this clause again if the amount of paid work done by trustees greatly increases.

We are now able to ask for members' approval at the AGM in January 2007 of the constitution printed below. It should be noted that under the present rules (and this proposed constitution) members must have notice in writing of changes to the rules. This means that, at the AGM, the rules must be accepted in their entirety as printed here or rejected. If there are objections, we cannot amend the rules at the AGM but must renew the discussion process and put forward another proposal at the 2008 AGM.

**BRITISH LICHEN SOCIETY
CONSTITUTION**

1. Name

The name of the society shall be the British Lichen Society

2. Objects

To promote and advance all branches of the study of lichens especially in relation to those of the British Isles. Actively to encourage and support the conservation of the lichen flora.

In furtherance of these objects but not otherwise to:

- (a) Publish results of investigations and other relevant work in the Society's publications or elsewhere, to the extent that the Council of the Society and the Editors deem to be suitable; such publications to be available for sale to the public.
- (b) Facilitate the exchange of information among lichenologists by organising field meetings, workshops, conferences, lectures, exhibitions, and by other means.
- (c) To promote education and awareness of lichens and to support the training of lichenologists
- (d) Aid in the maintenance of adequate representative collections of British lichens in the national and other public herbaria. Establish and maintain a collection of lichens for the use of members and others.
- (e) Develop and maintain databases of information on the distribution and conservation status of lichen species in the British Isles.
- (f) Maintain a library of books and lichenological journals. These to be made available to non-members at the discretion of the Librarian who shall be responsible to the Council.
- (g) Raise money by membership fees or by any other means, at the discretion of Council, and within the rules set by the Charity Commissioners.
- (h) To establish, own and maintain conservation areas and to aid in the establishment and maintenance of conservation areas.
- (i) To promote the views of the Society on matters relating to lichens at a local and national level

3. Membership

The Society shall have honorary members, ordinary members, associate, senior associate, junior associate and family members. Honorary members shall be distinguished lichenologists and / or persons who have rendered valuable service to the Society. Election of an Honorary Member should not increase their number beyond 2.5% of the total membership at that time, They shall be nominated by the Council and elected on a majority vote of those present and voting at a General Meeting of the Society. They shall enjoy the same benefits as ordinary members but shall pay no subscription. Ordinary members shall be persons who have signed the form of membership and paid the subscription. Associate members, of all categories, shall be entitled to membership (or removed from it, see below) in the same way as ordinary members but shall pay such smaller subscription as the Society may determine in accordance with Rule 5. Associate members, of all categories, shall enjoy the benefits of ordinary members, except that they shall not receive *The Lichenologist*. Junior Associate membership shall be open to full-time students and to persons under the age of 18. Senior Associate membership shall be open to persons over 65. Family membership is available to persons living in the same household as a member in some other category. Family members receive no publications and have no voting rights. Members under the age of 18 are not eligible to vote at a General Meeting or serve on Council. Ordinary members aged 65 or over may pay a life subscription. Other discounted subscriptions for more than one calendar year may be offered to members, at rates determined by the Society in accordance with Rule 5.

4. Removal from membership for misconduct

Any member whose conduct, in the opinion of the Council, is prejudicial to the interests of the Society may be removed from membership by a two-thirds majority vote of those present at a meeting of the Council, on the agenda of which the words "Removal of a member" shall have appeared; provided no member may be so removed unless due notice of 28 days has been sent to the member of the intention of the Council to proceed under this Rule. In such a case, the nature of the charges made shall be stated, and the member concerned shall be afforded the opportunity to answer such charges, either by means of a written statement to be circulated to Council members at least 7 days before the meeting, or by means of a verbal reply at the meeting, or both. A member so removed shall forfeit any claim upon the Society.

5. Subscriptions

Subscription rates shall be determined, as and when necessary, at a General Meeting of the Society by a majority vote of those present and voting. Subscriptions shall relate to one or more calendar years, and shall be payable in advance on or before 1st January each year. A person joining the Society who has signed the form of membership and paid a subscription shall be entitled to receive those of the Society's publications which

are appropriate to his or her category of membership, and which are issued during the calendar year(s) for which the subscription is paid. Members who have not paid a current subscription will not receive publications, and the Council has the power to remove them from membership.

6. Officers

The officers of the Society shall be the President, the Vice-president, the Secretary, the Treasurer,, the Assistant Treasurer the Senior Editor, The chairs of the Conservation Committee, Data Committee, the Education and Promotions Committee, the Members' Services Committee, the Bulletin Editor and such others as the Council shall decide. The positions of President, Secretary and Treasurer shall be held by three different members at any one time.

7. Election of officers

The President shall be nominated by the Council and elected for a term of two years by a majority vote of those present and voting at an Annual General Meeting of the Society. Nominations for the Vice-president and all other officers shall be in writing, submitted with the consent of the nominee, and shall be received by the Secretary at least two weeks before an Annual General Meeting. The Council shall have power to make nominations at any time prior to an Annual General Meeting. The Vice-president shall be elected for a term of two years and shall be ex-officio a member of all the Society sub-committees during his/her term of office. All other officers are elected for a term of one year. The election of officers shall be by a majority vote of those present and voting at an Annual General or Special General Meeting.

8. Council

The Council shall consist of the officers of the Society and of nine members each elected at a General Meeting of the Society for a term of three years with three new members normally being elected each year. Nominations for the members shall be in writing, submitted with the consent of the nominee, and shall be received by the Secretary at least two weeks before an Annual General Meeting. The Council shall have power to make nominations at any time prior to an Annual General Meeting. The members thus elected shall not be eligible for re-election until one year after their term of office. The retiring President shall remain a member of the Council for one year following his/her retirement. The Council shall have the power to co-opt to fill any vacancy on the Council or to offer specialist advice.

The following are not members of Council but are entitled to receive the minutes of Council meetings and to make a personal report at the Council meeting immediately prior to the AGM. Field Meeting Secretary, Mapping Recorder, Database manager, Archivist, Curator, Librarian, Webmaster. At other Council meetings they will report

through either the Chair of the Data Committee, Chair of General Services Committee or the Chair of Education and Promotions

9. Duties of Council and officers

The Council, through its officers, shall administer the affairs and the funds of the Society. The President, or in his or her absence, the Vice-president, shall preside at all General Meetings of the Society and the Council. In the absence of both, a chairman shall be elected by a majority vote of those present. The President shall be an ex-officio member of any Committees that the Council considers necessary for the running of the Society. In case of equality of votes on any matter, the President (or chairman of the meeting) shall have a casting vote. The Treasurer or his or her appointed deputy shall keep an account of all receipts and expenditure, a statement of which, reviewed by an Independent Examiner in accordance with the rules of the Charity Commission, shall be presented by him or her at the Annual General Meeting and either published in the Winter edition of the '*Bulletin*' or else included with it as a separate document. The Secretary, Treasurer, Senior Editor, and other officers shall submit written reports to the Annual General Meeting.

10. Trustees

The Trustees shall be the officers and members of Council

11. Payments to trustees

Subject in every case to authorisation by the Charity commission, any member of Council or their spouse/partner who possesses specialist knowledge or skills may receive reasonable fees when they or their company are instructed by the Council to undertake work which requires such specialist knowledge or skills. Provided that at no time shall more than seven members of the Council benefit under this provision and that a member of Council should withdraw from any meeting where his or her appointment or remuneration is under discussion.

12. Meetings

The Society shall hold an Annual General Meeting and such others as the Council shall decide. The Council shall hold an annual meeting and such others as it may decide. The Secretary (or in his or her absence a person appointed by the chairman of any meeting) shall publish to all members of the Society the formal decisions taken at every *General Meeting* of the Society. Minutes shall be taken of all formal meetings of the Society and its Council. Notice of a *General Meeting* of the Society shall be sent to members at least four weeks before the date of the meeting. The procedure and order of business at meetings shall be decided by the chairman. A Special General Meeting of the Society shall be convened on the requisition of the Council or of twenty members. The requisition shall be addressed to the Secretary and shall specify

the purpose for which the meeting is called. A convening notice stating this purpose shall be sent to every member at least fourteen days before the meeting is to take place. Notice of a Council meeting shall be sent to all members of Council at least fourteen days before the date of the meeting. A quorum at a General Meeting of the Society shall be twenty five members and at a meeting of the Council eight members of Council

13. Changes to the Constitution

Changes in this Constitution may be made only at Annual or Special General Meetings of the Society and must be approved by not less than two-thirds of the members present and voting at the meeting. Proposals to change the Constitution must be detailed in the notice convening the meeting sent to every member. No alterations, variations, or additions shall be made to the Constitution which will make the objects of the Society not exclusively charitable or the funds and assets of the Society applicable otherwise than for exclusively charitable purposes.

WANTED - A TREASURER

Would you like to become involved with the workings of the Society and help with its management? The post of Treasurer becomes vacant at the next AGM and we are looking for someone to take on this post.

The main duties are keeping the day to day accounts of the society, signing and paying in cheques, and liaising with other members of Council, the membership secretary and with the two members involved with sales.

The post is not very onerous on a week by week basis but the period after the end of June is much busier as the accounts have to be prepared and sent to the external examiner.

In addition to these duties you have to deal with the Charity Commission and send them an annual report

The post is enjoyable and keeps you in close contact with the society. If interested please contact Bob Hodgson on 01822 852826

AWARDS AND GRANTS FOR STUDYING LICHENS

The British Lichen Society welcomes suggestions for the study of lichens and is prepared, within funds available, to support approved projects, such as the following:

Summer Vacation Scholarship

The scholarship is intended to support a higher education/university student who would like to pursue a project related to the study of lichens involving, for example, their ecology, taxonomy or chemistry. The value of the scholarship is £2,000 overall (2006) expended, for example, as £180 per week for a maximum of 10 weeks, plus a small grant of £200 towards the cost of materials. Application is made by a member of university/higher education or museum staff on behalf of the student. The successful applicant will be expected to provide supervision of the students' work; submit a report (suitable for the BLS Bulletin); be responsible for the sound use of funds. Applications, in writing, should be sent to the President of the Society giving: title and brief outline of the project; costing of proposed expenditure; name of the student and their CV; supporting reference.

Small ecological project grants

Grants are awarded for focused fieldwork on neglected habitats or species that have not been seen in the British Isles for over 50 years, or overlooked by most people so that their distribution is poorly understood. Application, in the form of a half-page letter including costings, should be sent to the BLS Grants Committee. Recent grants have been of the order of £100 - £400. A report (or summary of a report, if this is extensive) is required, suitable for publication in the Bulletin.

BLS field meetings

Assistance towards the cost of attending field meetings can be obtained through the Nancy Wallace - Alice Burnett Fund. Grants are available to all members of the Society who find it financially difficult to attend field meetings. Applications should be sent to the President of the Society.

Overseas members travel fund

In the past, the Society has made available funding to assist overseas members of the Society in visiting the UK primarily to collaborate with UK members in laboratory and/or field research. Requests to support visits to use facilities such as herbaria

would also be considered, in which case a UK member may not necessarily be involved. Visits to attend conferences would not be supported. BLS Council has considered it preferable that a small number of people are funded to a significant level. In a recent year the total sum available was £1000. Applications should be sent to the Secretary of the Society, and be on one side of A4 paper, stating the applicant's name, position, full postal address and other contact details, as well as the approximate dates of the proposed visit and costings. The name of the UK collaborator (or the name of the person in charge of the herbarium) should be given and the applicants should arrange for the UK collaborator to send a letter of support.

Barbara Hilton,
for the Education and Promotions Committee

DATA COMMITTEE REPORT FOR 2006

We have had 3 meetings in 2006 (12 January, 19 May and 20 September). At the 19 May meeting Frank Dobson announced his resignation and invited David Hill to replace him. Jeremy Grey also resigned as secretary. At the 20 September meeting Ishpi Blatchley was appointed as the new Secretary. Great many thanks to Frank and Jeremy for all the excellent work they have done for the Data Committee.

Map Fascicles

Usnea and *Ramalina* (Simon Davey), *Lirelliforme* species (Bryan Edwards) and Ancient Woodland (Neil Sanderson) are in progress and should be ready for publication soon hopefully in a matter of months. Others (Metalliferous (BE), Marine (AF), Lignum and Worked Timber (VJG) and Terricolous (PL) species) are on hold while the new Flora is being completed.

Database of lichen records

We have had much discussion about software and it has been decided that the main BLS databases of lichen records will be moved to Recorder 6 and then, after the necessary reviews, made available on the National Biodiversity Network (NBN) Gateway. Andy Brewer from NBN joined one of our meetings and we had helpful discussions and he demonstrated the Gateway. He is now helping Janet Simkin with technical aspects of the transfer of the lichen data we already have on spreadsheets and

in BioBase to Recorder. This is being done in such a way as to ensure that in future we can accept data from either version of Recorder (R2k or R6) as well as from BioBase and Excel spreadsheets. These options should give BLS members the flexibility they need in finding a format that suits them. We are also looking at the AditSite and AditLite programs but these would need further development before we could use them.

Following the Scottish SNH project and the Welsh threatened lichen database project we are keen to keep up the momentum and turn our attention to the backlog of records that are not yet in the database. This would include the records for England and Wales held by Mark Seaward's Mapping Scheme, as well as churchyard cards and other collections of records that are still in spreadsheet or paper form. This is a huge task and will have to be tackled in manageable stages, perhaps based on geographical regions. Like the Scottish project it is too big to do on a purely voluntary basis, and we will need to obtain funding and pay people to do much of the data input and 'data cleaning'.

An example of lichen records on the NBN Gateway is the Welsh Threatened Lichens Database (go to <http://www.searchnbn.net/> and search for "*Teloschistes flavicans*"), but it is also worth exploring some of the other datasets on the Gateway to see how you can get from a dot on a distribution map to the detail of a record with very little effort.

Scottish project

This is almost complete and has been a great success. The data should be available on the NBN Gateway early next year. (Separate reports can be found in the *Bulletin*). Congratulations to Brian and Sandy for all they have done and thanks for the enormous amount of work they put into it.

Training

As with BioBase a few years ago, we will be arranging workshops and producing a printed manual to introduce members to the new spreadsheets and recording procedures once they are available. Simon Davey has proposed a field meeting in Ireland to train members in making lichen records in the field and dealing with the records electronically. In the meantime members are encouraged to keep sending their records in to Mark Seaward in the usual way, and also to Janet Simkin using either BioBase or the existing spreadsheets.

Barbara Hilton

SECOND PHOTOGRAPHIC EXHIBITION

Exhibit your photographs of lichens

Following the success of the photographic exhibit at the last AGM in Cardiff, you are invited to share your favourite images of lichens with other members at our next AGM Members' Exhibit (January 2007)

Interpret the subject
lichens in their environment

as broadly as you like - you may find the theme of the AGM
lichens of extreme environments especially interesting:
these could include lichens found on mountain tops, exposed shores,
mineral deposits, in xeric/dry conditions, on volcanic rock and in snow melt

- Photographs taken at a field meeting, or from your archives, are all eligible
- Both colour and black and white prints are welcome
- Enter up to four prints per person
- Any size or format is acceptable up to A4 (unmounted)
- Mount photographs, if possible, maximum size mounted 26x36 cm (10x14")
- For each photograph give the title, your name and, if you wish, a brief explanation (up to 30 words) of why you took the image, which could be included in a caption
- Notify Barbara Hilton by 15 December of the number of prints being submitted, to ensure exhibition space
- Bring photographs between 13.00 – 14.00 on Friday at the start of the Annual Meeting and collect at the close of the session on Saturday afternoon (Alternatively, send the photographs to Barbara Hilton and enclose postage for return)

While every care will be taken of your photographs, no responsibility can be taken for the care of photographs submitted for exhibition

Barbara Hilton, Chair, Education and Promotions Committee
Beauregard, 5 Alscott Gardens, Alverdiscott, BARNSTAPLE EX31 3QJ
bphilton@eclipse.co.uk

SNH GRANT TO BLS FOR SCOTTISH SITE LICHEN DATABASE AND TRAINING

Sixth and final period (April 1 2006 to end 30 September 2006)

The BioBase Scottish Site Lichen database now exists! Data input for the funded phase is now complete, and the last few months have seen the bulk of the work carried out by Janet Simkin:

- setting up site details in BioBase
- merging duplicates
- grouping closely related sites together under master sites
- standardising the spelling of location names
- checking and correcting grid references and Vice Counties.

There are 10,591 cards containing over a quarter of a million records (256,318 records) for 1,945 taxa, and it includes 8,670 sites and subsites.

The BioBase database is currently being converted to Recorder2002, with a comprehensive site hierarchy amounting to 9,187 locations (including Vice County, Region, site and sub-site). Andy Brewer (NBN Technical Support) is developing the Recorder import and has already provided a preliminary version of the Recorder database for testing. Monk's Wood are helping with the site data 'cleaning' by putting our data through their GIS. About a 5% error rate has been detected from the data input, but the close scrutiny, checking and corrections mean that this will be one of the 'cleanest' datasets of its type. At present the import is being done to Recorder2002 but the database will be converted to Recorder6 and then made available to the NBN Gateway.

The potential use of the SSLD is tremendous; during the building phase it has already been used to provide data for SSSIs that were to undergo Site Condition Monitoring, and post SCM data has now been fed into the database, providing comprehensive and up-to-date data for those sites. Other uses of the database include:

- forming the basis for drawing up a census catalogue of lichens in Scotland, with the associated spin-offs that such a catalogue will engender;
- justification of the 'Scottish list', and form a useful basis for future revisions;
- it will form the basis for a Threatened Lichen Database for Scotland;
- provide data for ecological research, e.g. numbers of lichens recorded from different phorophytes; distribution of particular species; coastal lichen diversity etc., etc.

It will be a living database, constantly updated and constantly used by field lichenologists, including those undertaking commissioned survey work in Scotland. It is planned to have a local, Scottish database manager, who will regularly feed changes, updates and additions into the central BLS lichen database. Above all, it is the BLS's commitment that the SSLD will be available to all on the NBN.

The appended maps demonstrate how the SSLD (on BioBase) has progressed from the outset of the project (before March 2004) to completion (September 2006), showing diversity for 5km squares. (Records for which we only have 10km or 100km square grid refs are shown in the SW corner of the square to which they apply).

Lichen training

Apart from the SSLD, the other main purpose of the SNH grant to the BLS was to raise awareness of lichens and provide training and encouragement to young lichenologists, to ensure that there will be a viable future for lichenology in Scotland. Over the three years of the project, this has been achieved, with the setting up of the **Lichen Apprentices** scheme.

There is a core of five young Lichen Apprentices, with a further six (at least) who have also benefited from the training opportunities offered, and can now be counted as 'active' lichenologists. It was fortunate that Site Condition Monitoring for Lichens in Scotland was being undertaken at this time, as expert lichenologists carrying out SCM agreed to take Lichen Apprentices with them whilst carrying out fieldwork. Three Lichen Apprentices gained sufficient expertise to be able to undertake SCM themselves in Dumfries and Galloway (with some guidance from Brian Coppins), and Andy Acton also carried out SCM at Glen Nant, and Joe Hope for Glen Affric.

As part of the training, a workshop on montane lichens was organised (the Rockers' Workshop). This was set up to tackle the acute shortage in the UK of young, active lichenologists able to undertake work in montane habitats. In a time of growing awareness of the effects of global warming, it is vital to record and attempt to understand more about these fragile and ancient montane lichen communities that will be at the forefront of climate change. Publicity in local newspapers and local Scottish Radio, as well as an article in SNH's magazine reported on the Rockers' Workshop.

Together with the setting up of the Scottish Site Lichen Database, the Lichen Apprentice scheme has been one of the great success stories resulting from the SNH grant to BLS. Other groups and organisations in Scotland are now seeking to replicate the scheme, most notably BTCV with their Natural Talents Bursary.

As a practical and positive outcome, the BLS now have active, young lichenologists as members. Two of these are currently serving on the BLS Council (Chris Ellis and John Douglass).

Lichen training and awareness-raising events that have occurred as a direct result of the available funding to members of the BLS from SNH:

- two days training at CEH Banchory, of lichens of upland terricolous habitats, by Brian & Sandy Coppins;
- churchyard lichens, a three day course at Alloa (partly sponsored by Clackmannanshire Council), and run by BLS member Joy Ricketts;
- as a direct result of the above, setting up of the Scottish Churchyard Lichen Group by Peder Aspen and John Douglass; so far, three meetings have been held, with short reports appearing in the BLS *Bulletin*, and the records sent to the SSLD;
- two days training for North East Scotland Biological Recording Centre (NESBReC), by Brian & Sandy Coppins;
- links set up with Heritage Scotland by Peder Aspen and John Douglass, to ensure lichen awareness on Scotland's historical monuments and the built environment; this includes talks given at a seminar by BLS member Vince Giavarini. One example of a site visit was the survey of the fountain in Holyrood Palace, after Her Majesty the Queen felt that the stonework was being disfigured by 'growths'. A short report on this was also reported in the BLS *Bulletin*;
- two day Lichen Days for Children and Adults, run by Peder Aspen and John Douglass at St Andrews Botanic Garden;
- training and awareness-raising of Historic Scotland Rangers in Holyrood Park by Brian Coppins;
- John Douglass (Ranger for South Lanarkshire Council, and a Lichen Apprentice) raising awareness of lichens locally through talks and training in local schools and as part of the opportunities offered by the Ranger Service, as well as ensuring that lichens are included in site inventories for SINCS, churchyards, cemeteries and for planning applications;
- two-days training for Caithness Rangers and volunteers, at Dunnet Head and Dunbeath Strath, by Brian & Sandy Coppins (partly funded by Highland Council);
- As a direct result of the above, setting up lichen monitoring project as part of an LBAP for Caithness Rangers and volunteers at Dunbeath Strath, by Brian & Sandy Coppins (also partly funded by Highland Council);
- two-day workshop for Lichen Apprentices held at RBGE, on Lichen Taxonomy and Thin Layer Chromatography run by Brian Coppins;

- Brian Coppins on-going support (field trips, identification checks, general advice and tips) for Lichen Apprentices as continuing encouragement to their expertise and development as competent lichenologists.
- Perhaps as a direct result of the opportunities offered, and the training and encouragement facilitated by the SNH grant, young John Douglass has emerged as something of a star. He has worked extremely hard, and received a lot of support from South Lanarkshire Council; together, they have produced a stunning major lichen exhibition (*The Secret Life of Lichens*), currently showing at Chatelherault Country Park, Hamilton and due to tour the UK after November 2006. John is also now actively engaged in undertaking lichen contracts.
- Other 'former' Lichen Apprentices regularly undertaking commissioned lichen contracts include Andy Acton and Joe Hope.
- Lichen habitat leaflets; the first is being produced by Andrea Britton (on montane heaths), with support from the Macaulay Institute.

The 'Scottish project' has run for three years; it has involved BLS members in a range of activities, from data inputting, to training. It has achieved the objectives that were set out at the beginning of the project; this in itself is an amazing feat, not least to consider that putting together such a comprehensive database (which included having to design, develop and test spreadsheets and database conversion modules at all stages along the way), and access data from a wide and disparate variety of sources, all this has been achieved within the timescale and budget set out at the beginning.

The BLS are indeed grateful to SNH for providing this grant, and lichenology in Scotland seems to be on a surer footing, and fairly well assured for the immediate future. Credit must also be given to the way SNH managed the grant, especially to Dr Chris Sydes, whose support and common sense approach throughout was much appreciated. We are also grateful to the time and support that Andy Brewer and the NBN have put into the project. This has been a real bonus, and taken the database forward more quickly and for less cost than it would have otherwise have done.

Sandy Coppins

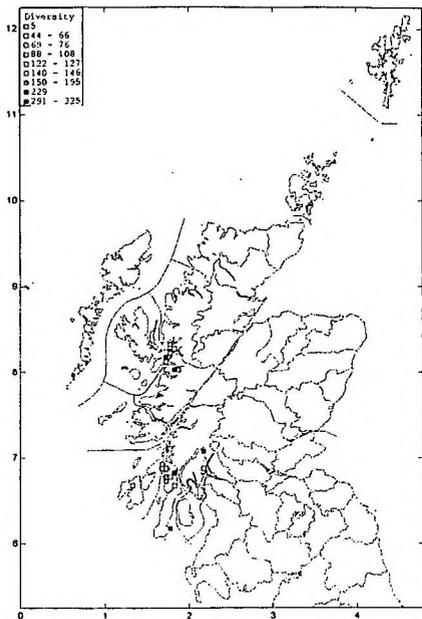


Fig 1
Lichen sites on BioBase before (March 2004)

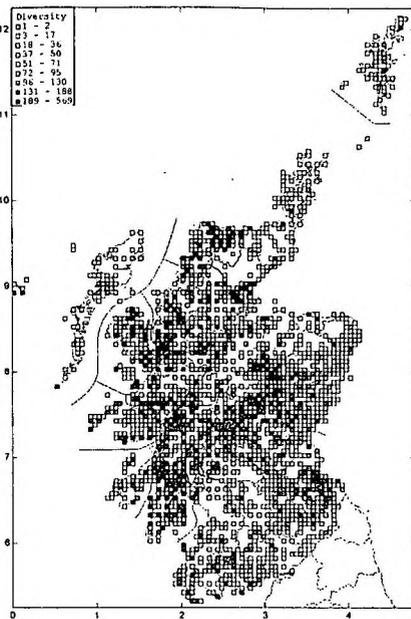


Fig 2
After (September 2006)

DATA FAIR

Official launch of the Scottish lichen Data base

Scottish Natural Heritage are hosting a Data Fair in Inverness in April 2007

This will be an opportunity to find out more about the Scottish Site Lichen Database, how you can use it, how you can contribute to it. There will be demonstrations and examples of projects that the database can facilitate. This is your database, so take the opportunity to come along and find out more. Databases for other groups and projects will also be featured at the Data Fair, so it will be an opportunity also to see what else is around and share ideas and make contacts.

Watch the BLS website for more details nearer the time (date, time and place)

ANNOUNCEMENT

TUCKERMAN/BLS WORKSHOP IN NEWFOUNDLAND

The 16th Tuckerman Workshop will take place September 6 - 11, 2007, on the Avalon Peninsula of southeastern Newfoundland. An invitation has been extended to members of the British Lichen Society to attend this workshop. The Tuckerman Workshops bring together professional and advanced amateur lichenologists to further the study of eastern North American lichens. The morning and early afternoon during each of four full days will be spent in the field, and the remainder of the day studying collections with microscopes. A good number of dissecting and compound scopes will be available for use by participants.

The workshop will be based at the Burry Heights Camp and Retreat Centre, about 45 minutes from the capital city of St. John's. The Avalon Peninsula is situated in the southern boreal zone, and has a distinctly oceanic climate influenced by the meeting of the Gulf Stream and Labrador Current. It encompasses three ecoregions: (1) Avalon Forest, a landscape of ribbed moraines with forests ranging from mesic balsam fir and yellow birch to wet fir and black spruce. (2) Maritime Barrens, more patchy coniferous forests alternating with extensive rocky barrens and peatlands. (3) Hyperoceanic Barrens, largely treeless coastal headlands, with extensive blanket bogs and heaths dominated by *Racomitrium lanuginosum*, lichens, *Empetrum* and ericaceous shrubs.

The Burry Heights Centre is operated by the United Church of Canada. The accommodations are modest, but comfortable. Cabins and residence rooms accommodate two to several people, and meals are provided in a dining hall. Vegetarian and special fare can be requested. More upscale accommodations and restaurant meals will be available on a limited basis at "The Wilds at Salmonier River", a golf resort about 15 minutes from Burry Heights. Daily rates will be about Can\$60 at Burry Heights (including meals) and about Can\$110 at The Wilds (not including meals).

Depending on the show of interest in the workshop, it may be necessary to limit the overall attendance. Scott LaGreca (contact info /or Simon Davey?) will coordinate the registration of BLS participants. For further information on the organization of the Tuckerman Workshops, contact Bill Buck (New York Botanical Garden, Bronx, NY 10458-5126, U.S.A.; e-mail: bbuck@nybg.org) and for details of the Newfoundland workshop, contact Stephen Clayden (New Brunswick Museum, 277 Douglas Avenue, Saint John, NB E2K 1E5, CANADA; e-mail: Stephen.Clayden@nbm-mnb.ca).

PUBLICATIONS AND OTHER ITEMS FOR SALE
(Subject to availability)

(All prices include postage and packing - U.S. Dollar rates are double the Sterling Rate)

For publications and other items please send orders to **Brian Green, 3 Tyn y Coed, Carneddi, Bethesda, Gwynedd, LL57 3SF, UK**, E-mail brian@regreen.co.uk Sterling Postal Orders, or cheques in Sterling or US Dollars should be made payable to 'The British Lichen Society', and drawn on a UK bank or on a bank with a UK branch or agent. *Overseas members may also pay by direct transfer into the Society's UK bank account. Please contact Brian Green for details if you wish to pay by this method.* Purchases in US dollars can be made through the Americas Treasurer. Cheques should be made out to 'British Lichen Society' and sent to J W Hinds, 254 Forest Avenue, Orono, Maine 04473-3202, USA.

Publications

Bulletin back numbers each £1.00

Please check for availability.

Lichen Atlas of the British Isles edited by Seaward

Fascicle 2 (*Cladonia* Part 1: 59 species)

for members £7.50

for non-members £10.00

Fascicle 3: The Foliose Physciaceae (*Anaptychia*, *Heterodermia*, *Hyperphyscia*, *Phaeophyscia*, *Physcia*, *Physconia*, *Tornabea*), *Arctomia*, *Lobaria*, *Massalongia*, *Pseudocyphellaria*, *Psoroma*, *Solorina*, *Sticta*, *Teloschistes*

for members £7.50

for non-members £10.00

Fascicle 4: *Cavernularia*, *Degelia*, *Lepraria*, *Leproloma*, *Moelleropsis*, *Pannaria*, *Parmeliella*

for members £7.50

for non-members £10.00

Fascicle 5: *Aquatic lichens and Cladonia (part 2)*

for members £8.00

for non-members £10.00

Fascicle 6: *Caloplaca*

for members £8.00

for non-members £10.00

Identification of (UK) *Parmelia* Ach. on CD-Rom - ISBN 0 9523049 4 5

for members £8.00

for non-members £13.00

for multiple users at one site £24.00

browser for Acorn computers free

Microchemical Methods for the identification of Lichens

for members £8.00

for non-members £11.00

(Airmail, additional at cost)

28 page Booklet "*Lichens & Air Pollution*" by James

each £1.50

Key to Lichens and Air Pollution by Dobson

each £2.00

Lichens on Rocky Shores

A1 Dalby 'Wallchart' each £6.00

A4 laminated Dalby 'Wallchart' each £1.50

Key to Lichens on Rocky Shores by Dobson

each £2.00

Proceedings of the symposium 'Taxonomy, Evolution and Classification of Lichens and related Fungi - London 10-11 January 1998' (reprinted from *The Lichenologist* Vol 30)

for members £8.00

for non-members £13.00

Bibliographic Guide to the Lichen Floras of the World (second edition) by

Hawksworth and Ahti (reprint from *The Lichenologist* Vol. 22 Part 1).

each £2.00

Checklist of British Lichen-forming, Lichenicolous and Allied Fungi by Hawksworth, James and Coppins (1980).

each £2.00

Checklist of Lichens of Great Britain and Ireland by B J Coppins (2002)
for members £7.00
for non-members £9.00

Lichen Habitat Management Handbook
for members £10
for non-members £15.00

Surveying and report writing for Lichenologists (Guidelines for surveyors, consultants and commissioning agencies.)
for members £10.00
non-members £15.00

Mapping Cards: General, Churchyard, Woodland, Mines, Coastal, Urban, Chalk and Limestone, Moorland free

BLS leaflets: Churchyard lichens - Lichens on man-made surfaces (encouragement and removal) free

Horizons in Lichenology by Dalby, Hawksworth and Jury (1988).
each £3.50

Aide Mémoire: Usnea by P W James
for Members £3.90
for non-members £5.90

A Field Key to Common Churchyard Lichens by F.Dobson Members £5.50 Non-members £6.50 Postage £1.50

A Guide to common churchyard Lichens. By F.Dobson
Each £2.50

A Conservation Evaluation of British Lichens by R.G. Woods & B.J. Coppins
Members £4.00 Non-members £6.00

Indices of Ecological Continuity for Woodland Epiphytic Lichen Habitats Of the British Isles by A.M & B.J. Coppins
Members £3.50 Non-members £6.00

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, black and charcoal £7.00

Sweatshirts with breast pocket size embroidered motif of BLS logo.
Light-grey, Navy-blue, Bottle-green, Red: £16.00

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T-shirts with screen-printed full chest motif of BLS logo encircled by the words 'British Lichen Society'. Please specify size and colour options.
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NEW FOR LOAN: For UK members only

A microscope stage-micrometer slide for the calibration of eye-piece graticules in 10µm divisions is available for loan. A deposit of £40 is required.

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).

BACK NUMBERS OF *THE LICHENOLOGIST*

Cambridge University are pleased to announce that from 2006 all BLS members will be able to purchase back numbers of the *Lichenologist* (ISSN 0024-2829) at £10.00 per back issue and back volumes at £40.00. Cambridge holds issues back to and including Volume 33 (2001).

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Back stock is also held at SWETS. For details see:

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A complete volume from SWETS costs 200 euros.

SUBMISSION DEADLINE

Please would intending contributors to the Summer 2007 issue of the *Bulletin* submit their copy to the Editor by 21 March. These can be sent by e-mail to plambley@aol.com as an attachment. This should be in MS Word. Alternatively they can be sent on a compact disc to the Editor (for address see back inside cover). It is helpful to have hard copies of tables and other diagrams. For the style of references see past *Bulletins*.

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