British Lichen Society

Bulletin

no. 118: Summer 2016

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Summer 2016

Welcome to the Summer 2016 Bulletin. Another super-sized issue, with the usual mixture of short articles, regular contributions, field meeting accounts – and the usual admin stuff. Field meetings accounts from excursions to Snowdonia, Unst in the Shetland Isles, the Forest of Dean and the Scilly Isles are included. Each resulted in several hundred new records for the BLS database, and attendees enjoyed the camaraderie, learnt a lot, and in some cases got rather wet.

As foretold in the last Bulletin, most of our membership admin functions are now carried out by a team from the Royal Society of Biology. You can contact them via a link from the BLS website (see *http://www.britishlichensociety.org.uk/the-society/join-and-renew*), via email (*member-admin@britishlichensociety.org.uk*) or by phone (020 3793 7852, or +44 20 3793 7852 from overseas). You will already have interacted with the new team when you renewed your membership for 2016! Of course, the Society's Membership Secretary will continue as a full member of Council, with a more strategic role than has been possible in the past.

The current issue starts off with an article on variability in apothecia of *Lecidella elaeochroma*, probably the most frequently misidentified species in the field by your *Bulletin* editor [though there's plenty of competition]… It's an extraordinarily plastic species in external appearance. However, disappointment at finding yet again that that strange specimen isn't so unusual after all is tempered by delight at seeing the beautiful blue pigmentation of the apothecia in section.

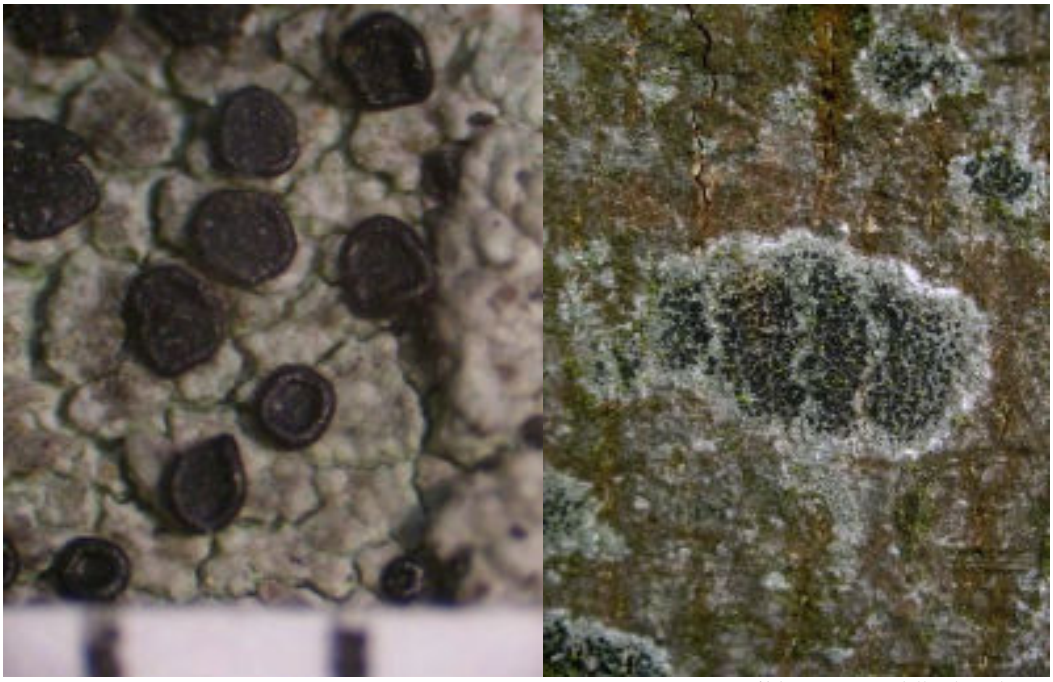
On the conservation front, what will hopefully become a regular article by Sandy Coppins describes the successes and failures of the Scottish lichen conservation scene. Protection of lichens is arguably the most important role the Society can play, whether it's by gathering data, improving public awareness or direct [responsible!] action. As always the responsibilities fall upon a very restricted group of stalwarts. More help is always needed across the entire country, and indeed in other nations also. It's poignant that the first British lichen to be formally assessed on a global level by the IUCN appears to be extinct in its only known populations.

The "New and Interesting" section goes from strength to strength – a special thank-you here to Chris Hitch for compiling it over the years, and now also to John Garrett who makes my life easier by helping out with formatting. Nine taxa new to Britain have been reported in the past six months. Do please carry on (or start!) sending new VC records and the like, Chris will be appreciative.

Front cover: The only known European populations of *Heterodermia propagulifera* occur on the Scilly Isles. A recent survey [described in this Bulletin] found that their status has improved, although they remain vulnerable to extreme weather events.

Lecidella elaeochroma (Ach.) M. Choisy as a chameleon species

What lichenologist does not know *Lecidella elaeochroma*?
The description of *Lecidella elaeochroma* in Smith *et al.* (2009) runs as follows: "a variable species as the pigmentation in the apothecia and thallus can be almost absent in shaded situations" and "the discs of the apothecia black in exposed, well-lit situations, pale blue-black, brown-red or ± piebald with a darker true exciple in shade. It is moderately tolerant of SO_2 air pollution, common and increasing". It grows on well-lit smooth bark, especially twigs and small branches, and wood where it forms mosaics.



"wild-type" *Lecidella elaeochroma*

Over the past thirty years I have collected thirty-nine samples of *Lecidella elaeochroma*. The apothecia of twelve of them were often strongly differing in colour. The well-known *Lecidella elaeochroma* has apothecia with a black disc. Apart from *Lecidella elaeochroma* with the familiar black exciple, some with clearly paler ones are found. Growing older the exciple is excluded, and the disc becomes brownish and convex. Besides the more or less brownish apothecia, you may come across apothecia which because of the colour, do not resemble the familiar black ones. I found cream coloured, yellow, yellowish-brown, and brown-yellowish apothecia, sometimes growing between the black ones. The images in this article speak for themselves. Once I

collected a specimen of which I thought – because of the orange apothecia- that it was a funny *Caloplaca.*

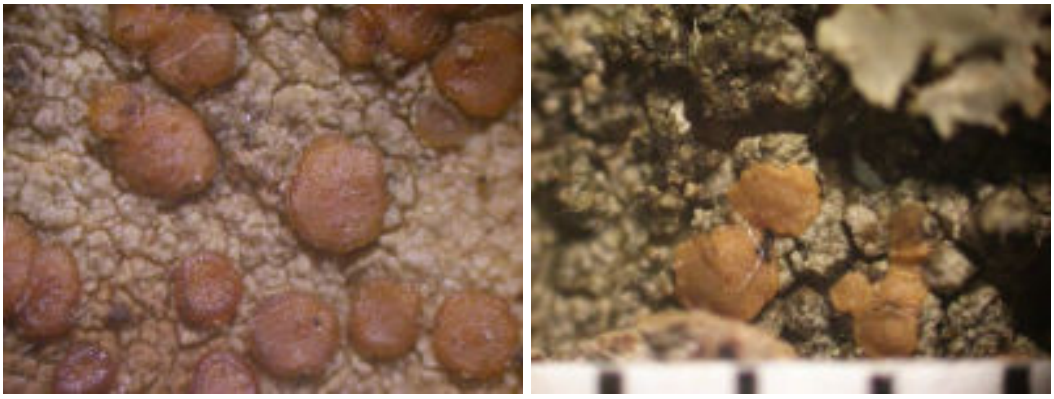
This phenomenon is fascinating. It raises questions such as "why" and "how" has this variety in colours come into being, and is it a purely Dutch phenomenon? Trying to find some satisfying answers I had a look at some floras, and keyed in *Lecidella elaeochroma* in Google. Then I sent emails to twelve foreign lichenologists in Spain, Bulgaria, Sweden, England, Austria, Germany, Belgium, France, Switzerland and Italy, asking if they know this phenomenon of variety in colours in their countries. All of them reacted spontaneously so that I gained some insight into the situation in quite a number of European countries, though - logically- far from complete.

I started with the internet. After having seen tens of photos of *Lecidella elaeochroma*, I had to come to the conclusion that differently coloured apothecia appear not to exist. With some luck you could see a specimen with an apothecium, slightly brownish discoloured, but that was just everything. Then I had a look at the reactions of the foreign lichenologists trying to classify their remarks. In this way I hoped to gain some idea of the countries in which this phenomenon clearly happens. In several countries (Bulgaria, Sweden, Austria, Germany, Belgium) the variety in colours was hardly worth mentioning, because there were only slight variations from the "normal" appearance such as brownish or somewhat piebald. From Spain, England, France and Italy, however, cream coloured, yellowish, brilliant brown, and reddish brown are mentioned. My important sources are therefore the floras, as well as the lichenologists who I had approached.

First of all the *Lichens of Great Britain & Ireland*! When I read the description of *Lecidella elaeochroma* I learned that it is a variable species regarding the pigmentation in thallus and apothecia, which can be almost absent in shaded situations. Besides growing in shaded situations the influence of environmental factors (pollution) were mentioned by three or four lichenologists. One of them suggested that, besides aging, genetic factors may be involved. One of our Dutch colleagues thinks that in our country the bizarre environmental combination of extreme SO_2 levels, overfertilization and climatic change plays an important part in the process. Is it only a Dutch phenomenon? Not at all ! It happens in several European countries as well. Enhanced UV levels leading to genetic mutations are certainly not inconceivable.

Why or how has this situation occurred? The opinions of the lichenologists differ. Growing in the shade has been mentioned by two or three of them. I have my doubts. Most of my samples are collected from well-lit spots such as more or less free-standing trees along lanes and country roads. SO_2 pollution has drastically decreased during the last decades, so that it can hardly play an important role any more. In fact one sees recovery of a number of species. Nevertheless, the Netherlands still are an overfertilized country. More herbicides, pesticides and insecticides are being sprayed, more than we care for, but maybe these are not responsible for variations in colour of the apothecia? Then it should be the climate! Many organisms no doubt react to the change of climate. The variation in colour of the apothecium seems to be a relatively rare phenomenon. The Dutch lichenologists, however, presume that it is more

common at home than abroad, but - also here - it remains a stroke of luck to find a differently coloured apothecium.



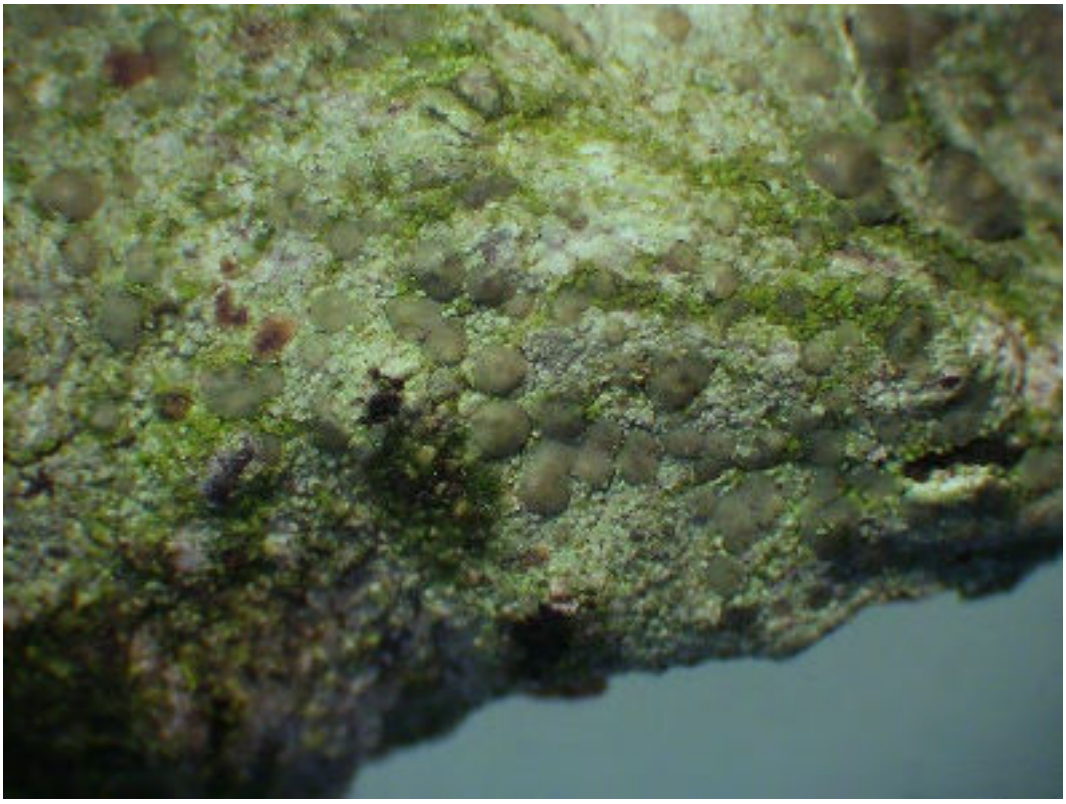
Yellowish-brown (left) and yellow (right) apothecia. Images © Arie van den Bremer

The *Lichens of Great Britain & Ireland* (LGBI) as well as some lichenologists mention change of pigment under influence of environmental pollution. The LGBI says: "the pigmentation can be almost absent in shaded situations". Would not an apothecium be whitish or white if the pigment is almost absent, and yellowish or orange apothecia, do they not have pigment? Certainly! Then again: "why or how?" It seems as if some specimens of *Lecidella elaeochroma* have lost their ability to make black pigment. Expression of other genes may have taken its place. This new mutation does not appear to be damaging, leading to the permanent establishment of differently coloured apothecia.

Black apothecia with lighter edge (left) and detail of apothecia (right). Images © Arie van den Bremer

Conclusions:
1. The colour variation of the apothecia in *Lecidella elaeochroma* is not a unique Dutch phenomenon.
2. It seems to happen in the Netherlands more than abroad, judging from what foreign and Dutch lichenologists say.

3. I know from my own experience that growing in the shade is not the cause. I collected most of my samples from trees in well-lit situations.
4. If change of colour is due to pollution, then it would be a widespread phenomenon, which it is not.



Near-albino colony of *Lecidella elaeochroma*, growing next to one with black apothecia

Acknowledgements
I like to thank the Dutch lichenologists Maarten Brand en André Aptroot who have contributed to this article with useful remarks, and the above mentioned friends and colleagues for their spontaneous reactions. Last but not least, I am grateful to Arie van den Bremer for making good photos from not very photogenic herbarium collections.

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Peltigera hymenina: a taxonomic enigma

I used to think the *Peltigera hymenina* in the lawn and on mossy stone in my north Cumbria garden was classic material. Possibly it is, I am no longer quite so confident about this highly variable 'species'. Samples collected from various sites in the English Lake District in 2015 were so different to this that I had thought some might even be *P. neopolydactyla* - new to the UK! For a while, contacts across various waters (Orvo Vitikainen in Finland, and Nicolas Magain in USA) were even starting to take this suggestion seriously.

Undersurface views of unusual variants of *Peltigera hymenina* from Lake District sites, as discussed in text. *Top left*: Great Langdale, on mossy roadside rocks; *top right*: Borrowdale, on drystone wall; *bottom left and right*: Swindale, on streamside rocks.

I provided material of the specimens illustrated to NM at Duke University, North Carolina, USA, who has been working with colleagues there on a major revision of the genus *Peltigera*, using DNA and molecular techniques. His own research has been especially on the taxonomy, phylogeny and biogeography of *Peltigera* section *Polydactylon* (a group that comprises species such as *P. polydactylon*, *hymenina*, *neopolydactyla*, *scabrosa*, *dolichorhiza* etc.). The identity and specificity of their cyanobacterial photobionts (*Nostoc* spp.) was also studied.

Although both the UK and Nordic *Floras* refer only to *pale* rhizinae, and not to strongly marked veins in *hymenina*, some of my Cumbria material had dark and well-defined veins, sometimes with abundant black rhizinae, becoming confluent - hence my suspicion of *P. neopolydactyla* – see fig. 1, upper left image especially. (This is still very distinct from *P. polydactylon*, with its neat thalli and reticulate venation right to the lobe ends, material of which NM was able to confirm for me.) His analysis and eventual conclusions on my hoped-for *neopolydactyla* were that, despite appearances, it was *P. hymenina* – though such variants were new and puzzling to him and his colleagues. He cites pale orange colouration at margin of the underside of the thallus as one good indicator of *hymenina.* This was not always to be seen in my samples. For the specimens that really looked like *neopolydactyla*, the identification as *P. hymenina* was confirmed by the amplification of the ITS region of its ribosomal DNA.

Magain (pers. comm.) and colleagues are clearly of the view that '*the section Polydactylon … contains many unrecognized species'*: in some cases morphologically similar material from different regions has proved to consist of more than one species; this has also applied to similar-looking morphotypes from a single region. Significantly, he feels that what is actually called *P. neopolydactyla* in Europe consists of several distinct species. He also admits that the range of morphological variation that falls within the present '*P. hymenina'* remains challenging to say the least. Hence, species identification of this section of *Peltigera* - already difficult – is likely to become even more complex in the near future - especially if names are to reflect true relationships.

The history of the nomenclature applied to the current *P. hymenina* tells its own story, and from what is said above it seems highly probable that further revisions will emerge. Can it really be that the examples in Fig.1 are all variants of one, very 'plastic', species? The conclusions of the American study are awaited with some trepidation!

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Some observations on the saxicolous lichens of the alpine and glacial zones of the Mont Blanc massif

Introduction

Given moderate precipitation, mountainous terrain often presents the lichenologist a fascinating array of lichens encrusting rocks, soil and trees. High mountains also provide a challenging environment where their examination and sampling is often difficult or dangerous. Successful field work requires careful examination of weather conditions and terrain to assure safe access. It is therefore not surprising to learn that the glacial zones of these mountains remain comparatively unknown for their lichens

and bryophytes. In the Alps, the threats of avalanche and severe weather conditions are ever present, even at the height of summer so particular care is necessary.

This study was made because the author wanted to become better acquainted with the alpine flora and enjoy the vigorous exercise that accompanies it. He also wanted to better understand the associations of the rock-inhabiting (saxicolous) lichens at a range of altitudes, noting their adaptations, if any to altitude. The ecological methods involved had already proved successful in North Wales, where conditions allowed for more extensive sampling (Pentecost, 1980).

The Mont Blanc massif was chosen for the relative ease of access to high altitude sites compared with most other large mountains in the Alps. Some good paths exist from the Chamonix valley on the French side. Another reason was the comparatively simple geology of the massif. Most of it is composed of granite and it was proposed to sample these at a range of altitudes, thus removing the complication of dealing with different rock types. This assumption however was naively conceived for it soon became clear that almost all of the granite on the French side occurs in the glacial zone with the bulk permanently covered by ice and snow. On the Italian side it descends into the Alpine zone, but most of it is too steep to sample in safety.

Previous work has been undertaken on the massif. Hue (1887) and Payot & Harmand (1901) provide lists from a range of localities while Asta (1975) made a series of phytosociological studies on this mountain and the adjacent Aiguilles Rouges, listing taxa from a range of locations up to 2500 m altitude. More recently, Orombelli (1983) obtained some lichenometric data for a site on the Italian side.

During the two field seasons undertaken in the 1980's I was fortunate in making the acquaintance of l'Abbé Jean Eyheralde of the Aiguilles Rouges Nature Reserve close to Chamonix. His knowledge of the region's natural history was unparalleled at the time and included an intimate knowledge of the local lichens. More information about this remarkable man is provided by Vanessa Winchester at the end of this report. During the second field season I was accompanied by my research student Stephen Clayden who was then working on the genus *Rhizocarpon*.

Methods

Saxicolous lichens were examined at eight locations (Figs 1, 2; Table 1). Sites 1-6 were situated in the alpine zone, the region between the upper limit of the *Picea abies* forest and the permanent snow line, which is approximately 2900m above sea level. Sites 7-8 were in the lower glacial zone, above the snow line. At each site some general recording was undertaken in an area of approximately 50 x 50m where access allowed. Next, ten 30 x 30 cm quadrats were thrown using random number tables to reduce bias in their positioning. In each quadrat, the percent cover of lichens and bryophytes was estimated by eye, and the aspect and slope of the rock surface measured using a compass and clinometer as described in Pentecost (1979). Samples were removed for examination in the laboratory where identification was in doubt. Altitudes, latitudes and longitudes were determined using Google Earth software. The work was carried out in July 1985 and July-August 1986. The main taxonomic work used for recording the flora was Ozenda & Clauzade (1970) with nomenclatural updates from the *Taxon Index* and *Index Fungorum*. Some collections were further examined and compared with

material held at the Natural History Museum, London. A reference collection resides in my herbarium.

Table 1. Site details

Site no.	Site name	Lat./long.	Altitude m	Rock type
1	Miage glacier	45°47'18''N, 6° 53'27''E	1760	granite
2	Below Monzino Hut	45°44'37''N, 6° 53'39''E	1840	granite
3	Plan de l'Aiguille	45°53'28''N, 6° 52'33''E	2300	granite
4	Signal Forbes, Montenvers	45°55'26''N, 6° 54' 40''E	2370	schist
5	Gîte à Balmat	45°52'40''N, 6° 51'21''E	2590	granite
6	Les Rognes	45°51'43''N, 6° 48'31''E	2600	schist
7	Arête Pavot, Tête Rousse	45°51'27''N, 6° 49'17''E	3180	schist
8	Arête Pavot	45°51'28"N, 6° 49'16"E	3220	augen gneiss

Results and discussion

Lichens and bryophytes recorded from the sites are shown in Table 2. Average percentage cover at each site is given where this exceeded 1%, with less than 1% cover being recorded as 'x'. Lichens and bryophytes found at the site, but not within the ten quadrats are recorded with an 's'.

A total of 68 lichen taxa and two bryophyte taxa were recorded. Species richness at the sites ranged from 2 (site 8) to 43 (site 4). Bare rock ranged between 26-77%. The ten most frequently recorded species in order of abundance summed over all of the sites were *Rhizocarpon geographicum* agg., *Sporastatia testudinea*, *Aspicilia caesiocinerea*, *A. intermutans*, *Umbilicaria cylindrica*, *Porpidia macrocarpa*, *Lecanora polytropa*, *Allantoparmelia alpicola*, *Lecidea lactea* and *Sporastatia polyspora*. A bar chart showing the five most abundant taxa at the eight sites is shown in Figure 3. These five species accounted for 27-88% (average 69%) of the area covered by lichens at these sites.

Rhizocarpon geographicum agg. was the most common and conspicuous of the saxicolous lichens overall and at most of the stations. Thalli were moderate to small in size, often in mosaics and frequently fertile. The subspecies *diabasicum* and *prospectans* were recorded occasionally and the latter was probably often overlooked and may have been one of the commonest members of this aggregate. A surface temperature of 33.5 °C was recorded for this aggregate on rocks at site 4 in mid-afternoon. The similar *R. riparium*, not generally accepted by British lichenologists but readily distinguishable from the *R. geographicum* aggregate was found occasionally on steep or sheltered rock

along with other members of the yellow group; *R. effiguratum*, *R. pusillum* and *R. superficiale*. *Rhizocarpon alpicola*, another member of the yellow group was occasionally present but never in abundance.

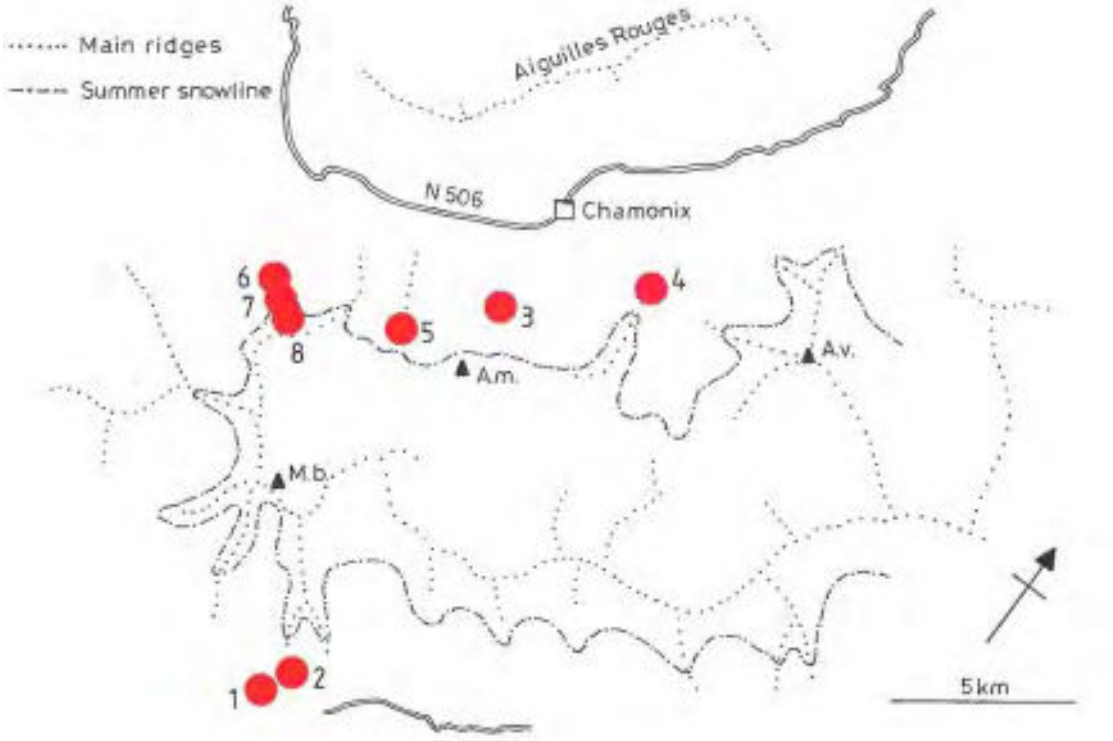

Fig. 1. Map showing locations of the sampling sites. A.m. Aiguille du Midi; A.v. Aiguille Vert; M.b Mont Blanc summit.

Sporastatia testudinea was also common at most of the sites. Thalli were often well developed but variable in terms of their areolation and pigmentation. They were occasionally parasitised by *Rhizocarpon pusillum* and in common with the other crustose lichens, became more patchily distributed and confined to steeper more sheltered rock with altitude. At site 5 however, this lichen, along with the other crusts were confined to the boulder tops and were perhaps limited by winter snow cover. *Sporastatia polyspora* was also encountered occasionally. It resembles superficially a species of *Sarcogyne*. The thallus is sometimes immersed in the rock and it is easily overlooked.

The two common *Aspicilia* species were often associated and frequently confined to boulder tops in general and are perhaps ornithocoprophiles to some extent, along with *A. cinerea* which was less often encountered but could be locally abundant. Thalli were normally well fertile and intermixed with *R. geographicum* agg. Cover in quadrats sometimes exceeded 40%. The large squamulose *Lobothallia (Aspicilia) alphoplaca* was seen only on the Italian side.

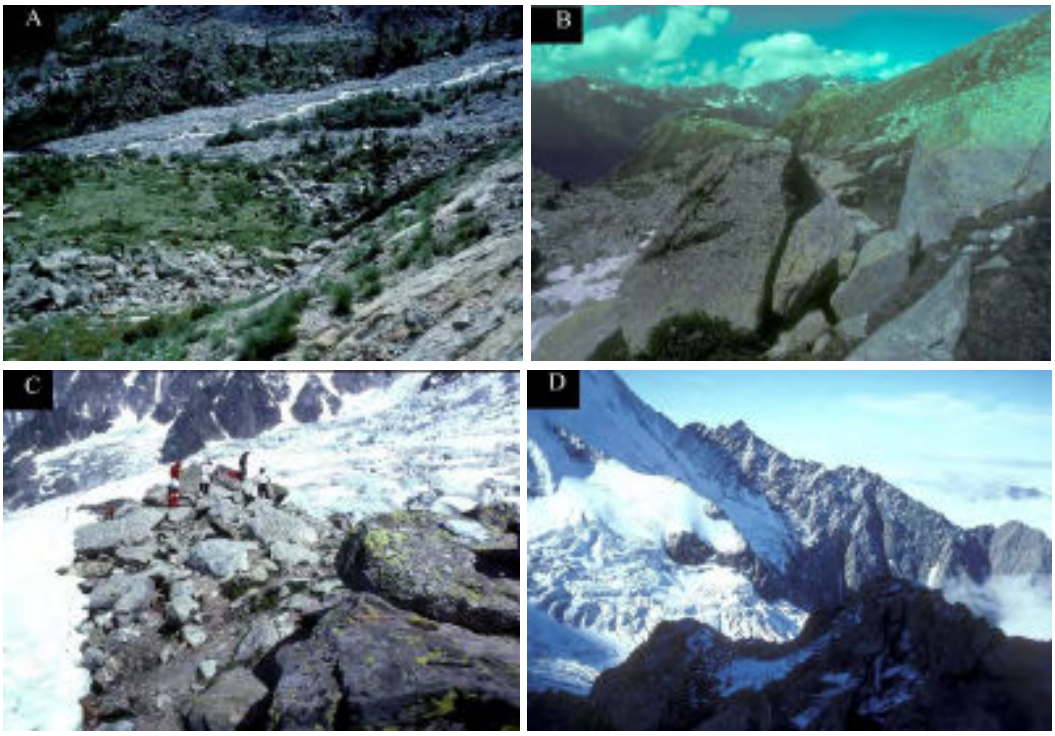

Fig. 2. Photographs of five of the sites. **A**. Site 2. Low outcrops of granite below Refuge Monzino, overlooking the Miage glacier, looking south. **B**. Site 5. Rocks close to the Gîte à Balmat looking north. The Gîte can be seen in the middle distance. **C**. Site 3. The Plan de l'Aiguille looking south towards the Aiguille du Midi. **D**. Sites 7 & 8. Situated on the Arête Pavot seen in the middle distance and viewed from a site near the Tête Rousse hut, looking east. Grand Couloir to left.

The other important and conspicuous group of lichens were the *Umbilicaria* species. Among these, *U. cylindrica* was the most frequently encountered, occurring at all of the sites. Thalli were often fertile and well developed and the lichen is a significant component of the local biota. These lichens are vulnerable to loss via abrasion although their holdfasts are tough and appear to penetrate rock to some extent. *U. proboscidea* and *U. nylanderiana* were also frequent species associated with the above. The dark thalli of *U. nylanderiana* are evidently capable of absorbing much solar radiation. The surface temperature of one thallus at site 4 reached 42 °C by mid-afternoon while the air temperature in the shade was 17 °C. The only other non-crustose saxicolous lichens that were at all common were *Allantoparmelia alpicola* and *Melanelia stygia*. The former was recorded at all but one of the sites as scattered but sterile dark brown thalli up to 10 cm in diameter. *Allantoparmelia alpicola* has not been recorded from Mont Blanc by previous investigators but there are several records of the similar *Hypogymnia intestiniformis* by Payot & Harmond (1901) and Asta (1975). These lichens are best separated by their chemistry and my material all agreed with the former based upon this characteristic. Further study of the distribution of these two lichens on the Massif appears desirable. Two species familiar to many British lichenologists since they are widespread and common in the UK were *Lecanora polytropa* and *Porpidia macrocarpa*.

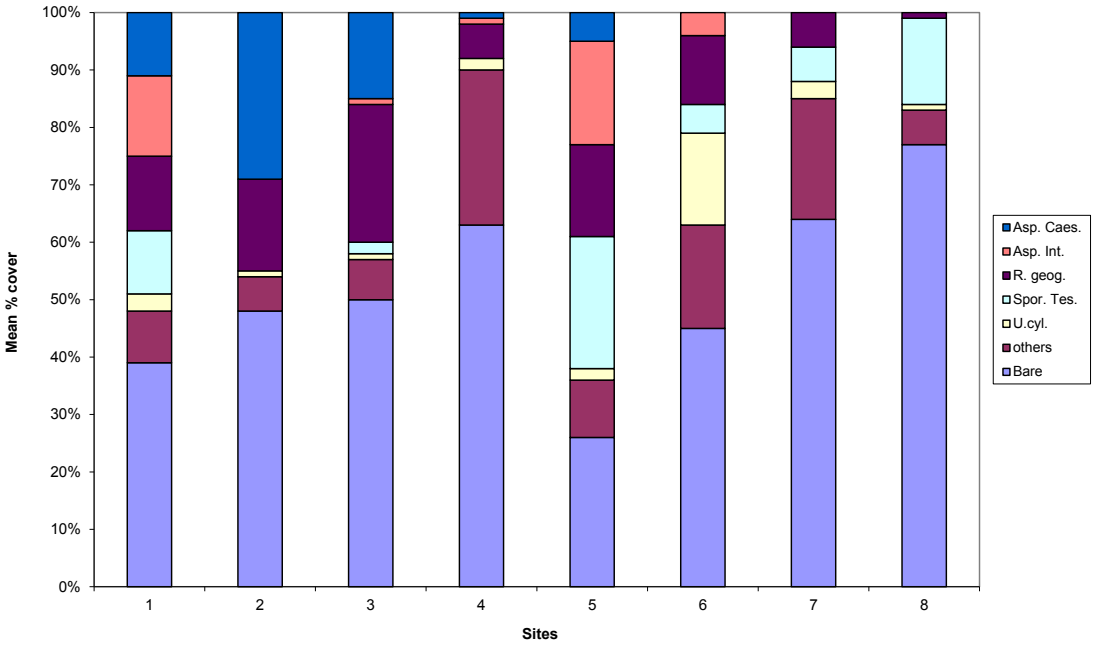

Fig. 3. Bar chart of the five most abundant taxa occurring at the eight sites. Altitude increases from left to right.

In the case of the latter however, the thalli sometimes grew up to 30 cm or more in diameter. This is unusual in Britain. Overall the lichen flora of Mt Blanc agrees with that of a base-poor and resistant alpine rock. Many of the taxa that occur there are also to be found in Britain on suitable substrata at elevations above 1000 m. The most conspicuous 'absentees' are the *Fuscidea* species. These lichens abound on acidic rocks along the northern Atlantic seaboard but appear to be absent from the massif. Although some crusts resembling *F. cyathoides* and *F. lygaea* were noted on the Miage moraine, there appear to be no previous records of these taxa. Bryophytes made a poor showing in these localities owing to the severe exposure from sun, snow and wind.

Polar graphs were prepared for four common taxa (Fig. 4). On these graphs the slope changes from zero at the centre of the circle to vertical at the circle edge. *Aspicilia caesiocinerea* shows a preference for low slopes with a south-easterly aspect while *Rhizocarpon geographicum* agg. seems to be slope and aspect-indifferent. This contrasts with observations undertaken in North Wales where there was a clear preference for the latter on south-facing rocks (Pentecost, 1979). *Sporastatia testudinea* and *Umbilicaria cylindrica* also appear to be indifferent to orientation. The sample size however is small and the work needs to be repeated using thalli from many more sites.

Two effects of increasing altitude are apparent. First the amount of lichen cover decreases with height and becomes increasingly patchy. Second the species diversity (as richness) decreases from an average 33 at sites 1-6 to an average of 16 at sites 7 and 8. Despite the small sample size, this observation agrees with qualitative measurements made higher on the mountain. Another conspicuous difference is the increase in

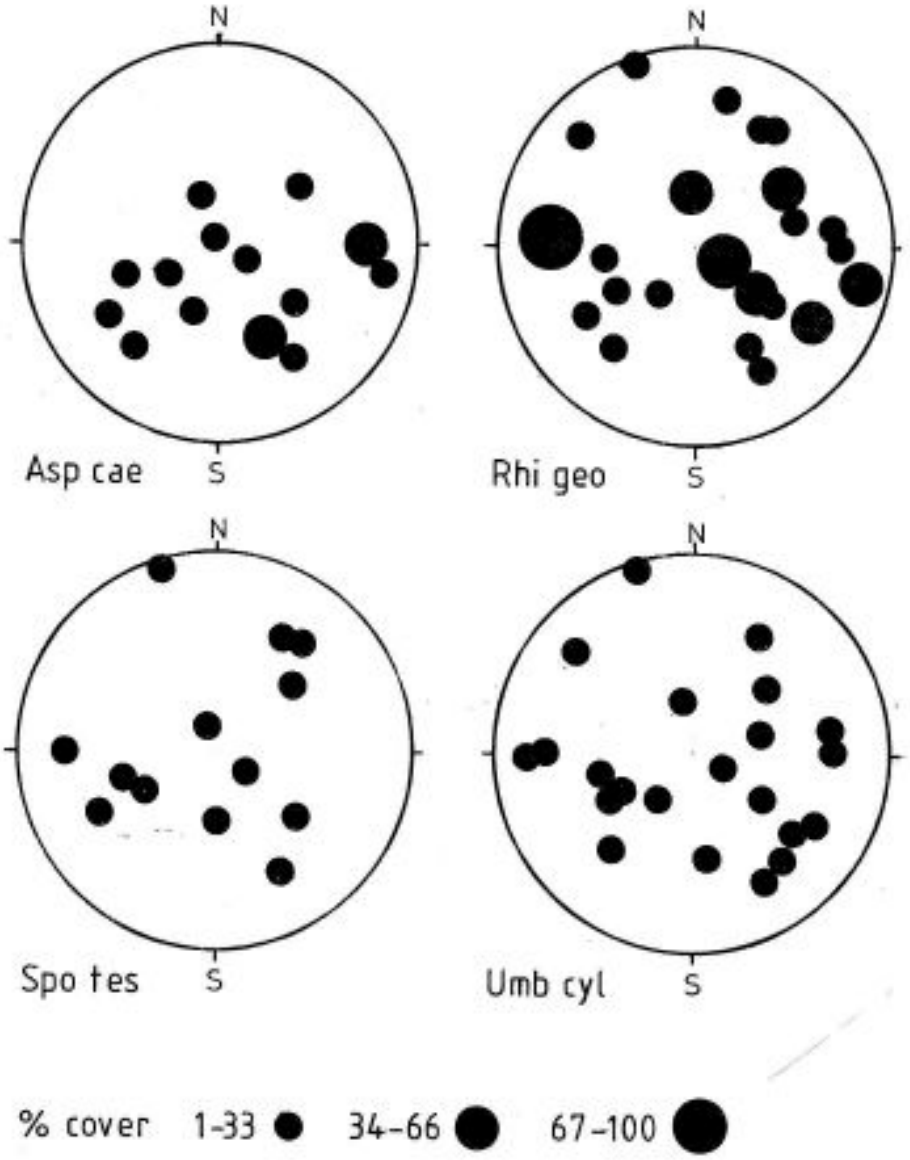

Fig. 4. Polar graphs of four of the lichen taxa. Asp cae *Aspicilia caesiocinerea*; Rhi geo *Rhizocarpon geographicum* agg.; Spo tes *Sporastatia testudinea*; Umb cyl *Umbilicaria cylindrica*.

pigmentation of the *Umbilicaria* species with height. On the Aiguille du Midi (3780 m) they appear almost black in colour. A section through a thallus of *U. nylanderiana* (Fig. 5) shows a thin but darkly pigmented cortex which probably serves to protect the underlying algae and mycelium from damaging UV radiation. The peculiar form of the apothecia in this genus may also serve to protect the developing ascospores of these lichens from UV radiation.

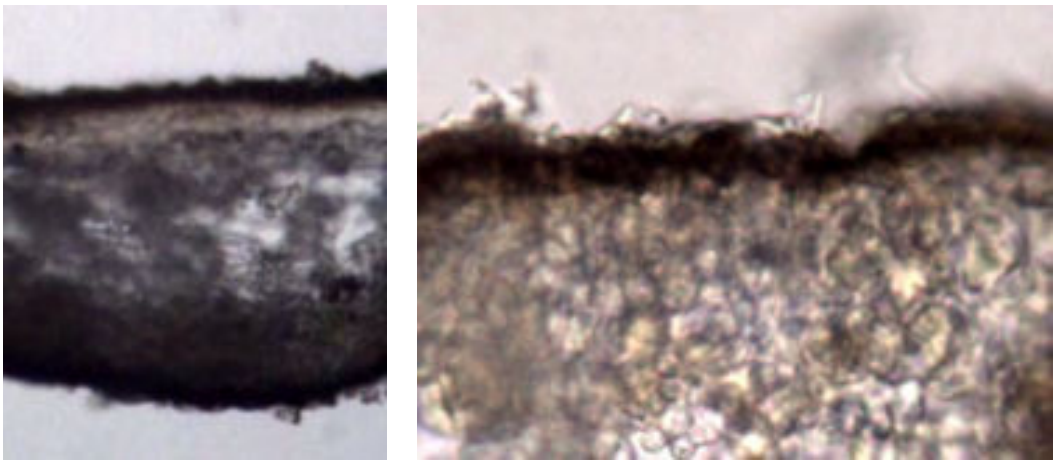

Fig. 5. Sections through a thallus of *Umbilicaria nylanderiana* from the Frêt de Charmoz (2400 m. alt.) showing a thin but deeply pigmented cortex probably caused by deposition of fungal melanins. Thickness of section on left and right 200 µm and 70 µm respectively.

Previous high altitude collecting was undertaken by M. Vallot and published by M. l'Abbé Hue (1887) and included the Aiguille du Dru (3815 m) where the only lichens were *Calvitimela (Lecidea) armeniaca*, *Rhizocarpon geographicum* agg. and *Umbilicaria crustulosa*. He also looked at the Rochers de la Tournette, 300m west of the Mt Blanc summit. At 4700m these represent the highest rock exposures in Western Europe. With some difficulty he recorded tiny thalli of *Umbilicaria proboscidea* and *Lecidea glomerulans* in sheltered rock crevices. A more comprehensive survey is provided by Payot & Harmond (1901) which contains a list of more than 300 lichen taxa from the Massif with the majority recorded from the *Picea* forests and the lower alpine zone.

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Table 2. Species inventory

Site number	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**
Altitude (m)	**1760**	**1840**	**2300**	**2370**	**2590**	**2600**	**3180**	**3220**
BRYOPHYTES								
Andreaea rothii		2	x					
Grimmia donniana		s						
LICHENS								
Alectoria sarmentosa subsp. *vexillifera*				s				
Allantoparmelia alpicola		s	s	2	s	1	2	5
Aspicilia caesiocinerea	11	29	15	x	5	s		
Aspicilia cinerea	s		s		s	s		
Aspicilia intermutans	14		1	x	18	4	s	
Buellia cf. tesserata				s				
Caloplaca cinnamomea				x				
Calvitimela aglaea	x	x	s	s	s	s		
Calvitimela armeniaca	s		s	s	s	x	2	
Candelariella vitellina	s	x	x	x	s	x	1	
Cetraria aculeata							s	
Cladonia coccifera agg.		s						
Cornicularia normoerica	x	s	s	x	s	1		
Dimelaena oreina	s	s	s	s				
Diploschistes scruposus				s				
Lecanora concolor							s	
Lecanora cf. gangaleoides				s				
Lecanora intricata		s	1	s	s	x	x	
Lecanora melanophthalma							s	
Lecanora polytropa	x	s	s	4	s	2	7	
Lecanora rupicola	s							

Site number	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**
Altitude (m)	**1760**	**1840**	**2300**	**2370**	**2590**	**2600**	**3180**	**3220**
Lecanora viridiatra			s		s			
Lecidea atrobrunnea	s			s		x	1	
Lecidea auriculata			x	x	s	5		
Lecidea confluens				s				
Lecidea lactea				x	6	x	s	
Lecidea lapicida							x	
Lecidea obscurissima		x	s	x	s	x		
Lepraria borealis							s	
Lepraria caesioalba		x		s		x		
Lobothallia alphoplaca		x						
Massalongia carnosa		s						
Melanelia stygia	x	s	s	s	s	1	1	
Ophioparma ventosa.	x	s		x	s			
Parmelia omphalodes				s				
Pertusaria corallina				x				
Pleopsidium chlorophanum	s							
Porpidia cinereoatra		s						
Porpidia macrocarpa	s		x	14	s	s	1	
Porpidia cf soredizodes					s			
Protoparmelia badia	x	s	x	2			s	
Pseudephebe minuscula				x	s			
Pseudephebe pubescens	x	s	s	s	s	2	1	
Rhizocarpon alpicola	x	s	x	1	1			
Rhizocarpon effiguratum						s	s	
Rhizocarpon geminatum	3	s	x		1			
Rhizocarpon geographicum agg.	13	16	24	6	16	12	6	1
Rhizocarpon geographicum subsp. *diabasicum*				s				
Rhizocarpon geographicum subsp. *prospectans*		s			s		s	
Rhizocarpon pusillum				s				
Rhizocarpon riparium subsp. *lindsayanum*					s			
Rhizocarpon superficiale						x		
Schaereria fuscocinerea	x	s	1		s			
Sporastatia polyspora	x	s	s				7	
Sporastatia testudinea	11	s	2	s	23	5	6	15
Stereocaulon evolutum				s				
Stereocaulon cf. vesuvianum				s	s			
Tephromela atra				x				
Tremolecia atrata	x	x	s	x	s		x	

Site number	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**
Altitude (m)	**1760**	**1840**	**2300**	**2370**	**2590**	**2600**	**3180**	**3220**
Trimmatothelopsis scabrida		x	x	x	s	s		
Umbilicaria cylindrica	3	x	1	2	2	16	3	x
Umbilicaria deusta		s	s	x				
Umbilicaria hirsuta		s						
Umbilicaria nylanderiana				1	2	1	x	
Umbilicaria polyphylla			s					
Umbilicaria polyrhhiza			x	x	s			x
Umbilicaria proboscidea			s	s		x	2	
Xanthoria elegans					s			x
Bare rock % cover	**39**	**48**	**50**	**63**	**26**	**45**	**64**	**77**
Total number of taxa per site	**27**	**33**	**32**	**44**	**34**	**26**	**26**	**6**

L'Abbé Jean Eyheralde (1922- February 2008)

I met the Abbé in 1985 during fieldwork in the Chamonix valley graveyards. Jean Eyheralde trained in a Jesuit seminary where he was attracted to the philosophical and theological writings of Teilhard de Chardin, whose ideas on original sin and cosmological evolution were then looked on with alarm by the Catholic Church. Jean Eyheralde's association with Teilhard de Chardin's heterodoxy, I was told, resulted in his being disbarred by the Pope from publishing. Thus, his observations on the Mycetozoa on which he became a leading expert, remain private: I wonder what became of his fabulous photographic collection?

Eyheralde was an extraordinarily charismatic preacher, but his abilities in the little Alpine village of Argentiere were probably not much appreciated by his rather traditionally minded flock. He did however have a devout following of beautiful young girls who were clearly thinking of becoming nuns. They were horrified when I dared disagree with him over a lichen name, they evidently regarded him as a demigod! He and his close friend Mme Yvonne Gubler (a geologist who, taking pity on my camper van existence offered me a bed) were instrumental in establishing, in 1974, the Aiguilles Rouges National Nature Reserve. She and the Abbé enjoyed nothing better than a heated discussion – sitting on the sidelines I felt rather like an umpire.

Under their leadership, trails were laid out with labelled information on the alpine plants, including lichens, the fauna and the geology and, in the reception centre on the Col des Montets, there are microscopes and all sorts of illustrations and information about the surrounding alpine environment. So, in the end, it might be said that the good Abbé got around the disbarment by passing on his passion for natural history. In his obituary he is described as … *chercheur infatigable, homme de science, de culture, de conviction et de grande sensibilité, il a mis tout son talent et son énergie à metre la connaissance de la nature à la portée du plus grand nombre.*

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Something fishy in the world of Antarctic lichens

There has long been scientific interest into how natural substrates influence the types of lichens that are able to colonise and grow on them and there are numerous examples of lichens confined to a particular habitat (Richardson 1974; Gilbert 2000). The review by Brightman & Seaward (1977) focussed on lichens growing on substrates that have been created by man. Since that review there have been many reports of lichens growing on what lichenologists think are unusual substrates, in particular, substrates that might be thought to be toxic to lichens. Examples are the presence of lichens on iron, in fact, on the iron cannonballs at an old Martinique fort (Richardson 1978) and on copper rich rocks (Alstrup & Hansen 1977). Further examples of lichens on artificial substrates are given in Bajpai & Upreti (2015).

In general, the purer the air the more habitats seem to be available to lichens. One very good example is the almost weed-like growth of lichens in the clean air and moist conditions of New Zealand where almost any substrate seems to be available for colonisation - and old cars are particularly beloved to lichenologists (Green & Snelgar 1977; Malcolm & Galloway 1997).

The Antarctic has extremely pure air and the maritime Antarctic, in particular is known as a region where lichens can grow particularly well (Sancho *et al.* 2007). It is no surprise then that artificial substrates can be rapidly colonised such as broken fragments of glass bottles (Schroeter & Sancho 1996). Another feature of the Antarctic environment is the preservation through mummification by the dry air of the remains of dead organisms. The classic example is the large number of mummified seal corpses found in various dry valley systems (McMurdo Dry Valleys, Mars Oasis) and the very slow decomposition of these remains can lead to the creation through nutrient enrichment of islands of mosses and lichens in otherwise empty areas (Smith 1997). However, although there is no direct colonisation of the seal bodies by mosses and lichens there can be growth on the exposed bones such as whale bones, relics from the whaling era of the first half of the 20th century (Olech 1996), and the surprising occurrence of *Verrucaria otagensis* in the Taylor Valley, Dry Valleys, southern Victoria Land (R. Türk personal collection). In the past apothecaries gave great value to the lichens growing on human skulls (Richardson 1974).

Here we report a rather unusual, perhaps unique, example of an Antarctic lichen growing on the dried remains of a fish (Fig. 1). The fish, identified as a member of the lantern fish family *Myctophidae*, of which over 30 species are known from Antarctic waters, was about 8 cm long. It was found about 30 m from the sea at an altitude of about 30m at Johnson's Dock (62° 39' 37.4" S, 60° 22' 03.0" W), a cove adjacent to Caleta Española, the site of the Spanish base Juan Carlos I on Livingston Island, South Shetland Islands. It lay on top of a rock that was obviously used as a perching place by skua gulls (*Stercorarius maccormicki* and *Stercorarius antarcticus*) and was almost certainly brought there by a bird as many limpet shells litter the whole area. The rock was well covered with the expected ornithophilic species such as *Caloplaca regalis*. The

lichen, growing directly attached to the upper body and dorsal fin of the fish, is *Usnea antarctica*, a common fruticose species in the area but more commonly associated with rock surfaces. The growth rate of the species in the area is up to 2.0 mm per year (Sancho & Pintado 2004), so these thalli might be expected to be tens of years old. Certainly the same species is able to colonise individual pebbles on beaches and small stones on screes.

Usnea antarctica growing on a dried fish (*Myctophidae*), found at Livingston Island, maritime Antarctica.

It seems likely that such an occurrence could only occur in Antarctica where the decomposition rates are remarkably slow. In this case the extremely dry nature of the substrate probably allowed the colonisation to occur as well as the almost complete lack of aerial pollutants that would alter the surface. The find occurred during the second phase of the Spanish Antarctic Programme at Juan Carlos I.

Our thanks to Dr Clive Roberts, Museum of NZ Te Papa, Wellington, New Zealand for identifying the fish.

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What is an areole?

Page 37 of the last Bulletin (Anon. 2015) showed cracked mud in a Slovenian salt marsh resembling a "humungous *Verrucaria* thallus". Comments were invited. This gives me a chance to apologise for using the term 'areole' inconsistently in that same edition when describing *Verrucaria obfuscans* and *V. ochrostoma* (Powell 2015). In my text and drawings I tried to be consistent with Krzewicka (2012) who uses 'areole' for any islands of thallus separated by cracks. In the captions to my photographs I slipped into my preferred usage as defined by the Glossary of the 2009 'Flora' (Smith *et al.* 2009): "**areole**, an island of thallus which develops on the hypothallus. The islands often enlarge and abut one another and are separated from adjacent areoles by surrounding prothallus (crazy paving-like)" and "**areolate**, (of areoles), cracked thallus derived from coalescence of separate areoles developing on a hypothallus". For thalli where the islands are caused by secondary cracking the term rimose is available: "**rimose**, irregularly cracked in all directions, the cracks originating within the established thallus". There does not appear to be a single-word term for each such rimose-cracked island and hence, perhaps confusingly: "**rimose-areolate**, small islands of thallus formed by the cracking of the thallus".

The mud in the Slovenian salt marsh is rimose-areolate since the individual polygons of mud have separated by the cracking of an originally continuous layer (they did not develop as individual blocks which expanded to fill the space and hence are not analogous to areoles as defined in the Glossary to the 'Flora').

In the absence of a single-word term for a 'rimose-areolate island' I wonder if it would be useful to introduce one. What about **rimeole**? More erudite readers could probably come up with something better.

In the genus *Verrucaria* one of the easier species to interpret is *V. ochrostoma*. This has convex, rounded algal units which I think are analogous to areoles (in the stricter sense) which arise independently and which may become confluent as they expand. This is as described by Orange *et al.* (2009): "Thallus… of more or less convex and mostly crowded areoles, forming a crust which becomes secondarily cracked". Krzewicka (2012) describes the same species: "Thallus… regularly areolate… Areoles 0.3-0.45 mm in diam." and "Perithecia completely immersed, 1 per areole". Her accompanying photograph shows a specimen in which the individual rounded algal units are not discernible and shows perithecia completely immersed in a thick, cracked crust. I too have found occasional specimens in which the algal units have fused in this way but most occurrences in England resemble little balls of putty which have been packed around the perithecia. *V. ochrostoma* is said to be a rare species in Poland, known from two localities in the Carpathians. Perhaps those 'wild' specimens are longer-established than most of our English material where *V. ochrostoma* is most often encountered as a colonist. If Krzewicka was referring to the initial single algal units as areoles she would not have found perithecia within them and her measurements

suggest that the larger, rimose-cracked islands are being described (the rounded algal units are typically only 100-200 µm in diam.).

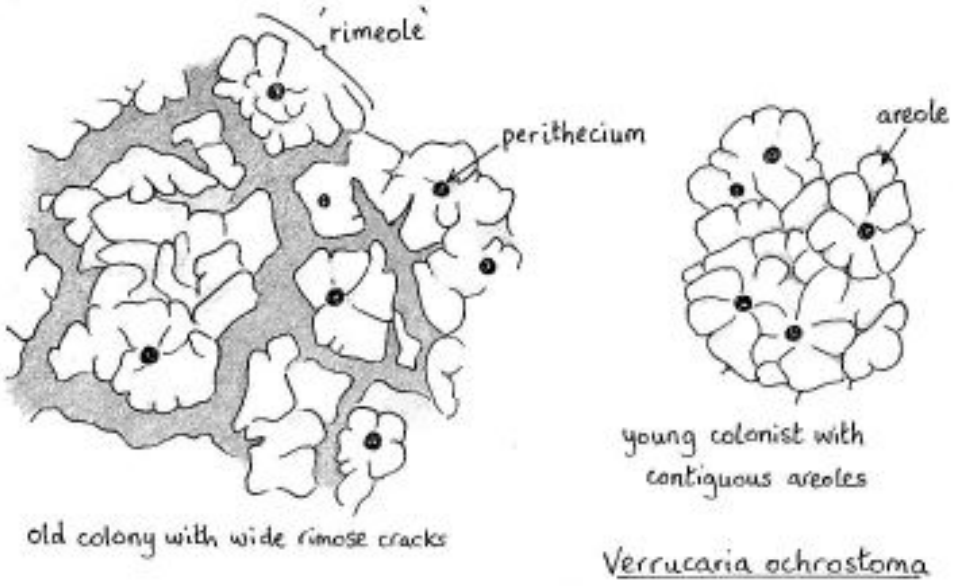

Fig. 1. Two thalli of *Verrucaria ochrostoma*, the one on the left sufficiently old and thick to have developed rimose cracks.

Orange *et al*. (2009) describe the thallus of *Verrucaria nigrescens* as "regularly cracked into areoles, 0.2-0.8 mm wide". Is this is a case of them using the term 'areole' differently than was used by them for *V. ochrostoma*? When a mature thallus of *V. nigrescens* is sectioned one finds the algal units partially immersed in a thick black basal layer. My observations of *V. nigrescens* (f. *nigrescens*) seem to suggest that these algal units are analogous to areoles (in the strict sense). Fig. 2 shows a mature thallus with each rimose-cracked island (rimeole) containing a number of these algal units (which may be more or less fused than shown). This doesn't prove that the algal units arose directly upon the hypothallus. However *Powell* 4025, a specimen growing on the hard rind of a flint pebble, has a rather wide marginal zone of prothallus comprising a very thin weft of brown hyphae. The black basal layer is produced at a slightly later stage of development. Interestingly some of the algal units can be seen developing directly on the prothallus. More observations are required to confirm the true developmental origin of the algal units in *V. nigrescens* and other species. Investigating such issues is a good way of getting to know the different species of *Verrucaria* and requires no specialist equipment.

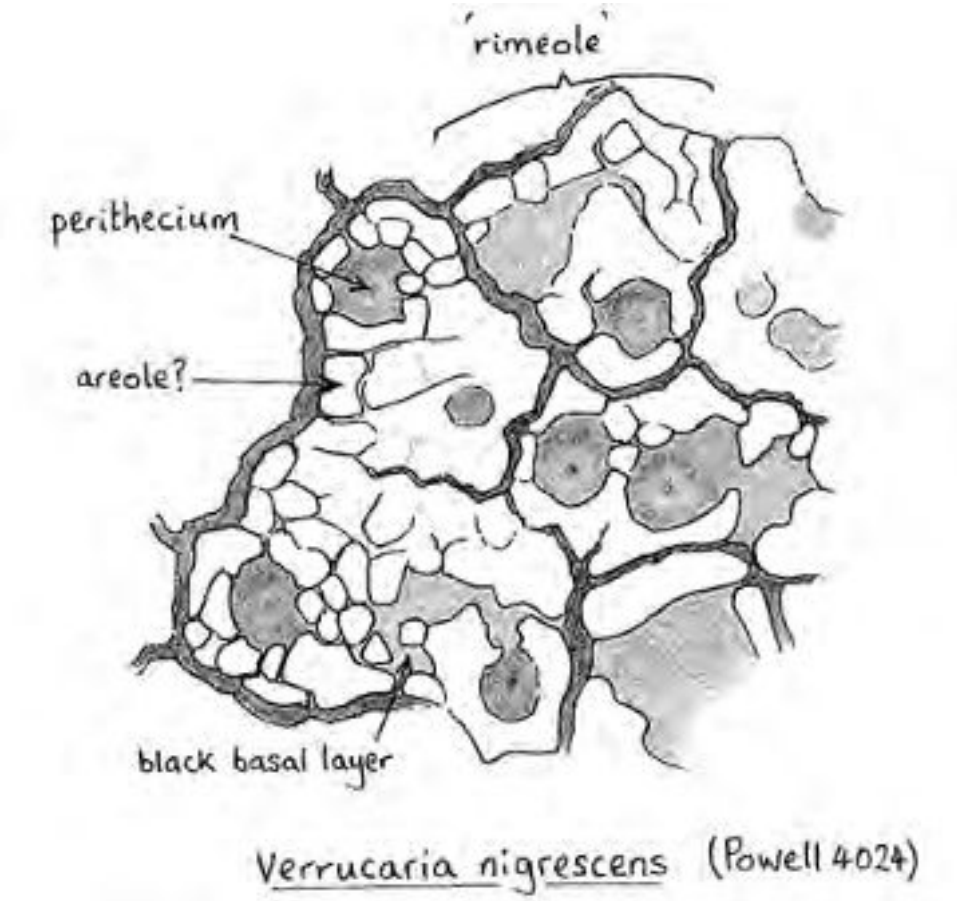

Fig. 2. *Verrucaria nigrescens*, a mature colony growing on a limestone gravestone.

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‘Wonder’ bra: an exotic substratum for lichens

The above photograph taken by the bryologist Des Callaghan in 2012 was used by him to demonstrate an unusual substratum for the two mosses, *Orthotrichum affine* and *O. diaphanum*. It pictures a brassiere suspended from a sycamore tree just north of Cronton in Lancashire (SJ488895). Although I have not had the pleasure of examining this phenomenon, it is clear that lichens have readily colonised this substratum: judging by the similar nitrophilous species on the adjoining twig, they appear to be one or two species of both *Physcia* and *Xanthoria*. Those lichenologists of an inquisitive inclination and worldly disposition who wish to investigate this assembly in more detail should, if questioned by the police, have a good excuse for fondling the goods!

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Introducing the Lucid key to Cladonias of Great Britain and Ireland

We are all familiar with dichotomous keys in which you select from two choices (a couplet). Each choice leads to further couplets or to an identification. The problem with such keys is that if a choice is made in error, or a feature referred to in a couplet is poorly developed, then generally you will be unable to identify the unknown. In contrast, the Lucid software can be used to develop multi-attribute keys. In these types of key you are given details of all those features that may be present in your unknown lichen, you can then select from these in any order. As you select features the number of possible matching species is winnowed down until, you either find a unique match, or a small number of possible matches remain. The software can then be used to prompt you for the optimum means of distinguishing between the remaining possibilities until a match can be made.

We have developed a Lucid key for the Cladonias of Great Britain and Ireland which is freely available to members of the Society. The key includes all taxa and chemotypes recognised in the 'Flora' (Smith *et al.* 2009) but additional descriptive elements have been taken from the more recently published Nordic Flora (Ahti *et al.* 2013).

Technical terms are defined and, where available, illustrated with photographs. For each taxon a page of information is provided which includes key features, the description from the 'Flora', photographs and a recent distribution map.

The key is available in two forms: an html file viewable from any web browser (Explorer, Edge etc.) and as a standalone program, Lucid Player 3.5. It can be run on Windows, Mac and other operating systems but to date it has only been installed on Windows 7 and 10 environments. Full details of how to install the key and how to make best use of it are provided. It will be available to download from the BLS website.

The current version is 'Version 4 December 2015' but it is intended to continually update and improve the key. Users who have an earlier version are encouraged to obtain the latest version. All users are asked to provide feedback to lesknight@btinternet.com in order that the key can be improved.

It is hoped to develop a key for all lichens in the 'Flora' based on data kindly made available by Frank Dobson from his Lichen Identifier.

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Les Knight and Annelie Burghause

Wanted *Multiclavula vernalis*

Image from Hampshire; © Martyn Ainsworth, Kew

The Lost & Found Fungi Project (see *http://fungi.myspecies.info/content/lost-found-fungi-project*) is searching for potentially under-recorded lichens in the UK. This work is generously funded by the Esmée Fairbairn Foundation, and based at RBG Kew.

And yes, this is a lichen! *Multiclavula vernalis* is related to the clavarioid basidiomycetes, but like the better-known *Lichenomphalia* species it has *Coccomyxa*-like photobionts. The thallus consists of crustose, granular, dark green clusters of algal cells intermingled with fungal hyphae. The club-shaped fruit bodies vary between 7 and 20mm in height. It occurs in similar habitats to *Lichenomphalia* species – i.e. wet, peaty soil in damp crevices and gulleys in heathland, sometimes associated with cyanobacterial crusts.

More information at *http://fungi.myspecies.info/all-fungi/multiclavula-vernalis*.

The species has been reported from VC12 N Hampshire, and from the far north of Scotland (VC110 Outer Hebrides and VC112 Shetland). And nowhere in between!

Please refer possible sightings to Brian Douglas (*b.douglas@kew.org*) and any other relevant Brian! Your support will help protect this poorly known species.

Acharius's personal copy of *Lichenographiae suecicae Prodromus*

The following proposal for the digitisation of Erik Acharius's *Lichenographiae suecicae Prodromus* (1799) was made by David Galloway prior to death in 2014:

"Erik Acharius (1757-1819), Linnaeus's last student, and the founder of modern systematic lichenology, was a doctor in the country town of Vadstena, where he produced four books on lichenology. The first of these appeared early in 1799 (the title page gives 1798) and was an introduction to the lichens of Sweden, being a distillation of several lichenological papers published between 1794 and 1797. Acharius sent James Edward Smith a copy of the *Prodromus* for the Linnean Society Library in July 1799, and for this gift Smith proposed Acharius as a Foreign Member of the Society. Acharius also dedicated the *Prodromus* to the Linnean Society and later sent the Society a set of named lichens mentioned in his ground-breaking volume, the *Methodus* of 1803; this important lichen collection is now in The Natural History Museum, London (BM).

In 1992, a memorial plaque to Acharius (designed and cast by the renowned Swedish sculptor Liss Eriksson) was affixed to the end wall of the Acharius House in Vadstena under the auspices of the International Association for Lichenology. This memorial had as its major supporters the Linnean Society of London, the Swedish Linnean Society and the British Lichen Society, complemented by donations from the international lichenological community.

In August 2013, while researching the Acharius Archive in the Manuscripts Department of Carolina Rediviva (the University Library) in Uppsala, I came across Acharius's personal, interleaved copy of the *Prodromus*, a handsome volume with a particularly luscious hand-painted frontispiece plate (drawn and coloured by Acharius himself) and with a text replete with many hand-written changes and additions, and lists of generic, species and variety names. Clearly this was Acharius's working model for the *Methodus* of 1803, and as such a volume of considerable historical and taxonomic interest. The copy that Acharius sent to J.E. Smith for the Linnean Library has the frontispiece drawing completely blackened by age, whereas Acharius's copy is as clean and fresh as the day it was painted."

The initiative to digitise this very important work by the famous Swedish lichenologist Erik Acharius was due entirely to David Galloway, but sadly he passed away on 6 December 2014 before this could be undertaken. David, a graduate and doctorate of the University of Otago, New Zealand, worked at the Natural History Museum, London from 1973 to 1994, becoming Senior Research Fellow in 1982, and promoted to Principal Scientific Officer and Head of the Lichen Division in 1987, before returning to New Zealand where he obtained a research position at Landcare Research in Dunedin. He was President of the International Association of Lichenology, 1987-1992, and received its highest honour, the Acharius Medal, in 2001. Although he will be mainly remembered for his monumental *Flora of New Zealand*: *Lichens*, first published in 1985, and the extensively revised and expanded two-

volume second edition published in 2007, his taxonomic expertise and encyclopaedic knowledge of the history of lichenology, more particularly of 18th and 19th century lichenologists, were frequently called upon.

I was particularly anxious to ensure that David Galloway's proposal to issue an electronic version of Acharius's personal interleaved copy of *Lichenographiae suecicae Prodromus* should come to fruition; to this end the Uppsala University Library, as well as generously providing a major source of funding, also provided the expertise for the digitisation and production of this internationally important work which can be viewed at: *http://www.ub.uu.se/samlingar/verk-och-samlingar-i-urval/acharius/?languageId=1*

Other major sources of funding for this project were provided by the British Lichen Society and the Linnean Society of London. This impressive and most valuable resource is a fitting tribute not only to Erik Acharius but also to David Galloway, one of his distinguished successors.

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Conservation News 2015, Scotland

Hydro schemes – these are proliferating in Scotland, and do require Environmental Impact Assessments (EIA), though it seems that lichens are not always considered. John Douglass and Andy Acton have been involved in some to assess any potential impact on lichens where run-of-river hydro schemes are proposed. Although there are very robust guidelines for bryophytes (see below), there is nothing comparable for lichens. This makes it difficult to report with confidence as to the lichen importance of a site, as there are no accepted, published guidelines. The reason for this is because the freshwater habitat is less well studied for lichens than for bryophytes. Hence, several species which lichenologists believe to be rare, critical indicators of prime freshwater habitats are designated as Data Deficient (DD). This could mean that they are DD because they are extremely rare, or, alternatively, that they may be over-looked or under-recorded. To recommend that a scheme should not proceed on the basis of several DD lichens would not be convincing or acceptable as robust evidence.

Perhaps though, the greatest debacle with hydro schemes concerns the final outcome of the run-of-river hydro scheme on the River Isla at the wondrously-named Slug of Auchrannie. In this instance, the main concern was not with a DD lichen, but with *Collema dichotomum* (the River Jelly Lichen, the RJL). The BLS exerted considerable pressure and effort in objecting to this project, based on thorough and meticulous recording carried out by John Douglass, and backed up by Brian Coppins.

Collema dichotomum (RJL) (with Caddis fly cases). Photo John Douglass.

The site is a SSSI. The rocks in the river hold (as far as we can know) the largest popul-ation of *C. dichotomum* in the world.

Under existing legislation, the RJL is categor-ized as VU, and is listed on Schedule 8 of the Wildlife and Country-side Act (1981). Sched-ule 8 protection makes it an offence to pick, uproot or destroy plants so listed.

The project to install a hydro scheme on the Isla has been in the offing for some years, with revised plans drawn up in order to reduce impact on the RJL. John worked tirelessly to provide evidence and assessment of the potential impact that the scheme may have on this lichen. The final decision came before Angus Council Planning Committee at a meeting in the Town Hall in Forfar on 27 January 2015. John and Brian went along, and stated the case for wanting to refuse permission, backed by the BLS. The hydro project was agreed, but the decision was not unanimous, a vote of 10 for, 3 against.

So, it will go ahead, but strong representation for monitoring and mitigation have been adopted. The project is expected to cost between £4.5 to £5 million so the developers must feel assured of a good return! The Slug of Auchrannie is a ravine, hence 'pristine' as far any river section can be. The rarity of the RJL is recognised – awarded the highest possible protection of being listed on Schedule 8. But that wasn't enough. SNH felt that there were "overriding public, social and economic benefits". If it was a community scheme, one could perhaps just about go along with that, but – it isn't. So not sure how that argument was justified. The only thing that could possibly be a justification is that using water energy – "green" energy, will help reduce the impacts of climate change. And there is some truth in that, although the world is so hungry for electricity.

The other worrying aspect about the number of hydro schemes that are proposed is how few receive EIA for their lichen interest. The reasons for this are not clear, although there is suspicion that there is a trend for private environmental consultancies to do lichen assessments 'in house', with little or no expertise in lichenology. On the positive side, the surveying of some sites for potential hydro schemes by John and Andy has resulted in new records emerging from new localities.

Will the BLS be able to pull together enough data to use in making assessments for freshwater lichen habitats? John Douglass and Vince Giavarini have been gathering data from river systems they have surveyed, and are working on a draft outline for assessing lichen interest of river systems. But, this really calls for a major funded project (together with a related project on fresh-water lakes, tarns and upland lochans). There is a **pdf** for the bryological guidelines, see: Averis, A.B.G., Genney, D.R., Hodgetts, N.G., Rothero, G.P. & Bainbridge, I.P. (2012). Bryological assessment for hydroelectric schemes in the West Highlands – 2nd edition. *Scottish Natural Heritage Commissioned Report No.449b. http://www.snh.gov.uk/publications-data-and-research/publications/search-the-catalogue/publication-detail/?id=1953*

Atlantic Hazel Action Group (AHAG):

AHAG have struggled over the last year for various reasons, mainly from not being able to successfully attract HLF support. However, at the end of 2015, things began to look more promising, as Trees for Life expressed an interest in including promotion of Atlantic hazel within their funding bid. Also, The Woodland Trust see opportunities for including promotion of hazel expansion in some of their current projects, such as the Woodland Croft. The Atlantic Hazel habitat is also now listed on the 2020 Biodiversity Route Map for Scotland, so this gives additional leverage for SNH to contribute towards promoting the habitat.

Since Atlantic hazel became recognised as a distinctive habitat (mainly because of its lichen interest), it has always managed to stay on the radar. It is now included in descriptions of woodland habitats in Scotland (including the recent "Rainforests of Britain and Ireland: A travellers' guide" by Clifton Bain), as well as articles in Reforesting Scotland, and even a French magazine *La Garance Voyageuse*. There is good news that John Rodwell is including Atlantic Hazel in his draft preparation for Red List of European Habitats project.

Miscellaneous: surveys

The key survey of 2015 was a contract with FCS – Deadwood Survey, but not deadwood of prime habitats, but exploring the biodiversity value of the dead wood in clear-felled commercial conifer plantations (stumps and snags). Brian Coppins (ably assisted by John Douglass and Andy Acton) carried out the fieldwork. Easily classed as an under-recorded habitat, no-one looks at stumps in felled conifer plantations, but of course, over time, say 5+ years, invariably 'something' will settle and take up residence on an exposed surface. The top surfaces of cut stumps probably require about 10 years before macro-lichens such as *Cladonia* species begin to establish, but by that time, the conifer regeneration has got away and enclosed the stump habitats. So, this is just a window of opportunity, a temporary habitat, patchy and finite, but repeatedly available within the commercial conifer cycle.

Left: clear-fell site, Moy (between Daviot & Tomatin, Highland Region). Right: Typical stump in clear-fell, Moy. April 2015.

The results are fascinating; the nineteen sites across Galloway and the Scottish Highlands produced a surprising 179 lichens plus nine lichenicolous fungi; of the lichens, three species are so far unidentified, and two are new to the British Isles: *Lecidea huxariensis* and *Puttea caesia*. An interesting discovery on Sitka Spruce stumps was *Xylographa trunciseda* – formerly thought of as an Ancient Pinewood Indicator. It turned up quite a few times, often parasitized by an unidentified lichenicolous fungus that appears to belong to a hitherto undescribed genus! Other surprises include *Bacidina neosquamulosa*,(known previously from SE England, but found to be quite common on stumps) and two finds of what seems to be *Buellia hyperbolica*, a rare lichen previously considered a species of ancient oaks.

The survey results now reside with FCS, but the lichen data is entered onto the BLS lichen database. [See also *British Wildlife* Vol. 27(2)139-140. December 2015).

Small surveys were carried out by Andy Acton and John Douglass; these were mostly related to development (e.g. windfarms, hydro schemes, railway, footpaths, etc.); for FCS, surveys and advice of Planted Ancient Woodland Sites (PAWS) – basically phase 1 surveys, but management advice giving added value, and often producing records from sites hitherto not previously recorded.

Training, workshops, guided walks – this is often done for small local groups, but is important for keeping lichens on the radar, raising awareness of lichens generally, and habitats, and there are spin-offs for management advice for local reserves. Forestry Commission Scotland (FCS) also organised workshops for staff and forestry consultants to raise awareness of lichens and bryophytes. Both John Douglass and Andy Acton have carried out several training events.

Recording

Apart from Andy Acton and John Douglass, several individual recorders regularly contribute records to Brian for the Scottish Lichen Database, such as Dave Genney. There are also ad hoc recording made by Andy Acton, John Douglass and Brian when

they are out and about. When I receive news of any interesting finds, I try to include them in my occasional submissions to *British Wildlife* (under Wildlife Reports – Lichens).

But there are two outstanding persons, who deserve special mention: Stewart Taylor (Nethybridge), selects particular habitats, niches and species with which to specialize, and has developed an uncanny expertise in finding and recording lichens within his selected sphere. Although his focus is on aspens, he has recorded from a range of other corticolous species; there is a steady input of records, including several important records for *Lobarion* species from more eastern localities, plus new sites for *Anaptychia ciliaris*, *Schismatomma graphidioides*, *Sclerophora pallida* and *S. peronella*. Heather Paul (Morayshire) continues to keep a watching brief of the lichens on the Findhorn Dunes, including mapping occurrences of *Peltigera malacea* along the Moray coast. Heather has also developed a knack for spotting incidences (3rd, 4th & 5th UK records) of *Paranectria superba* on *Peltigera malacea*. She has also been recording lichens from her visits to the Outer Hebrides, and she stayed on after the BLS meeting on Shetland and sent in several additional records. Otherwise, ad hoc recording continues.

Latest news: 'Lichens hit Holyrood'

The Scottish Parliament debated the 'Celtic Rainforest' at a Plenary Session at Holyrood on January 5th this year. I have not attached a transcript of the debate (which lasted 30 minutes), as it is mostly couched in typical stilted, prepared briefing style, but I am grateful to Dave Genney (SNH) for alerting me the link. But, lichens figured strongly throughout the debate, perhaps because of the zany common names which were readily picked up: Yellow Specklebelly, Stinky Sticta, Blackberries-in-custard, Octopus suckers*. Michael Russell (MSP for Argyll & Bute) who tabled the motion, stated he was "the Species Champion of the Tree Lungwort, a large and verdantly green lichen that can be found in several of Scotland's rainforests".

The debate is important as it highlights the bryophyte and lichen importance of the Atlantic woodlands of western Scotland. The work of SNH and NGOs was recognised especially in relation to control of *Rhododendron ponticum*. The background briefing for the SMPs was by prepared by SNH (Dave Genney), Forestry Commission Scotland (Richard Thompson) and Plantlife Scotland (Deborah Long). Plantlife Scotland PLINKS have included a large swathe of the west of Scotland as an Important Plant Area (IPA). The four cross party SMPs who took part all represent constituencies in the west. The summary was by the Minister for Environment, Climate Change and Land Reform Aileen McLeod. However, despite some scepticism about all the good intentions actually becoming converted into action, this surely has to be seen as a positive event, and Plantlife Scotland congratulated for enabling this to happen.

*If you don't know what these wacky species are: Yellow specklebelly *Pseudocyphellaria crocata*; Stinky-Sticta *Sticta fuliginosa/sylvatica*; Blackberries-in-custard *Pyrenula hibernica*; Octopus suckers *Collema fasciculare*.

News from the Royal Botanic Garden Edinburgh (RBGE)

Dr Chris Ellis and the team at RBGE continue to undertake research on lichens, and also have accomplished several major projects relating to lichens in the British Isles. Chris has thought for some time that there should be 'News from the Institutes', to inform the BLS about what is happening, including student projects. Ideally, perhaps, this could become a regular feature (e.g. in the Bulletin), incorporating RBGE, Kew, NHM, NMW, Hutton Institute, and any other educational body where research connected to lichens in the British Isles is being carried out.

1. Kristine Bogomazova is working on her PhD (possibly the first in the UK dedicated to lichen taxonomy in 20 years, in fact possibly since Alan Fryday); this is addressing taxonomic uncertainty for BAP/Priority species, with an initial focus on the status of *Pseudocyphellaria lacerata*. Material has now been sampled from the type locality in the Azores, and this will go a long way towards a clarification of the genus *Pseudocyphellaria* in Britain. Future plans include work on *Diplotomma pharcidium* and *Megalospora tuberculosa*.
2. Sally Eaton is now entering the third year of her PhD (funded by SNH) examining lichen dispersal, to understand the scale at which we need to consider lichen populations and their conservation. Excitingly, she has been capturing lichen propagules (for example for *Lobaria pulmonaria*, *Nephroma* spp. *et al*.) using spore traps, and is using innovative DNA techniques to understand how far propagules travel in the landscape.
3. Rebecca Yahr is partnering with SNH and our bryologist colleagues (notably Gordon Rothero) to inventory the Cairngorm's lichen flora, and this has led to the discovery of new populations for *Bellemerea alpina* and *Sporastatia testudinea*. Plans going forwards include taxonomic analysis of *Stereocaulon*, building on the previously successful DNA barcoding of *Usnea* which was warmly supported by the BLS.
4. The Conservation Volunteers (TCV) provided funding to employ Frances Stoackley in a lichen education project. Frances has sampled lichens in Edinburgh, to develop urban pollution indicators. However, the emphasis is less on data gathering (such as OPAL) and more on using lichens in a tool for community empowerment, so that people can assess for themselves the health of the environments they live in. The indicators are designed to be extremely simple, not unlike the famous Gilbert 'mucky air survey' of the 1970s.
5. Under the Climate Change Scotland Act, the Scottish Government has to develop indicators of effective climate change adaptation that address risks identified in the UK's Climate Change Risk Assessment, including risks to biodiversity. These indicators now have influence at a UK level, as National Adaptation Indicators delivered to the UK's Climate Change Committee. Building on Sandy and Brian's work on lichen indicators for ecological continuity, RBGE has developed lichens as an indicator set addressing the climate risk to specialist and dispersal-limited species, and this should help embed lichen work in future conservation activity that is related to climate change.
6. Similarly, an RBGE technical report on bryophytes and lichens was provided for the second edition of the UK's Biodiversity Climate Change Impacts Report.

These activities may seem rather onerous and removed from reality, but they probably help raise the profile of lichens as a concern in the minds of people pulling levers higher up in Government, and keep lichens 'current' as a topic (i.e. related to climate change).

7. Partnering with the BLS, funding from the Esmée Fairbairn Foundation was used to complete a toolkit to explore the consequences of climate change and woodland composition for lichen epiphytes; as an example, this is now being used by SNH at their Glasdrum NNR to help inform long-term management goals (available as SNH Commissioned Report No. 895), taking into account both climate change and the potential impact of tree diseases such as ash dieback.
8. Chris Ellis was an invited speaker representing RBGE's work on lichens and environmental change, including partnership projects utilising the BLS database, at the 20th Cryptogamic Botany Symposium in Porto in July 2015.
9. More general news related to management stuff is that Chris Ellis is on the Expert Panel of SNH's Scientific Advisory Committee, and also on the Steering Committee of the Habitats and Species Group tasked with delivering the Scottish Biodiversity Action Plan, while Rebecca Yahr represents the BLS and RBGE interests on PLINKS. Chris Ellis was given the added job of making sure RBGE's UK Research is 'properly' aligned with the Scottish Government's Strategic Research Programme, and can report that work on lichens ranging from taxonomy/systematics to ecology and outreach is likely to remain fully embedded in this programme through to 2021. The management stuff sounds a bit dull, but its perhaps useful for people to know these links exist. Sally will probably have stuff to add in here also.
10. Becky Yahr carried out and published a reassessment of the status of *Calicium corynellum* in the British Isles (Yahr, R. 2015. The status of the conservation priority species *Calicium corynellum* in the British Isles. *Lichenologist* **47**(4):205-214). This work used molecular, chemical and morphological comparisons to demonstrate a lack of evidence to distinguish the taxon we have referred to as *C. corynellum* in Britain from *C. viride*. This species is one that Becky really would feel confident about taking off the British List. Of course, she would love to have fresh material of verified *C. corynellum* from its Scandinavian range for sequence comparisons.

SNH: In addition to the above, Dave Genney has given an update to the experiments with translocating *Flavocetraria nivalis*. This is a very distinctive alpine lichen, occurring in short, wind-clipped dwarf-shrub heaths in the eastern Scottish Highlands. It is categorised as NT, is NS and appears on the Scottish List. See distribution map http://www.britishlichensociety.org.uk/resources/species-accounts/Flavocetraria%20nivalis The work is an on-going project, part of the climate change adaptive strategies, and is being undertaken jointly between SNH, RBGE and the team led is led by Rob Brooker from the James Hutton Institute. The team acknowledge that translocation is a "last gasp" adapt-ation strategy for climate change. The interim results of the project showed that the predictive modelling required further refining for this lichen and its specific habitat. Hence this has been the main effort for the last year, including selecting

Flavocetraria nivalis. Photo: Andrea Britton

sites (based on climate models), then refining (to vegetation characteristics) and the actual positioning of the thalli further refined down to micro-site, but, importantly, it was found that the 'eye' of the lichenologist was another necessary adjunct in selecting the niche. The small hooks on the lobe edges were used to nestle the thallus down in amongst adjacent vegetation. Creag Meagaidh is a new site for the work, which is being carried out using strict guidelines set out in the Scottish Code for Translocation.

Sandy Coppins
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Wanted *Melanelixia subargentifera*

Image from Burskerud, Norway; © Einar Timdal

The Lost & Found Fungi Project (see *http://fungi.myspecies.info/content/lost-found-fungi-project*) is searching for potentially under-recorded lichens in the UK. This work is generously funded by the Esmée Fairbairn Foundation, and based at RBG Kew.

Melanelixia subargentifera has only been recorded from a single UK site, Gannochy Gorge near Fettercairn in VC91 Kincardineshire, Scotland [and here may well be extinct]. It is however widely distributed in northern Europe and could well be missed in other UK sites.

Melanelixia subargentifera occurs in similar niches to *M. subaurifera* and is distinguished by its often somewhat raised thallus lobes with minute marginal bristles, and both laminal and marginal soralia that become silvery-pruinose.

More information at *http://fungi.myspecies.info/all-fungi/melanelixia-subargentifera*.

Please refer possible sightings to Brian Douglas (*b.douglas@kew.org*) and any other relevant Brian! Your support will help protect this Critically Endangered species.

Lost & Found Lichens: survey visit to the Scilly Isles, 19-26 March 2015

Here follows a report of a survey visit made under the auspices of the Lost & Found Fungi project (*http://fungi.myspecies.info/content/lost-found-fungi-project*), managed by the Royal Botanic Gardens, Kew and generously funded by the Esmée Fairbairn Foundation.

Recipe for a fantastic week:

1. Have a couple of projects to work towards - preferably funded!
2. Pull together a really diverse collection of lichenologists
3. Book comfortable accommodation in a great landscape
4. Find a trip leader who knows the trick of booking suitable weather

A recent lichenological trip to the Isles of Scilly got the recipe just right.

The Lost & Found project had identified a number of lichenised fungi that needed checking or re-finding on the Isles of Scilly. This project was combined with an extension of an ecological project funded by the BLS in 2014 to survey *Heterodermia* species on the islands. Holger Thüs wanted to search for new sites for *H. leucomela* and *H. propagulifera* and re-check populations previously seen. Material was also needed to confirm that British material named *H. propagulifera* is the same taxon as the widespread tropical species.

The trip was populated with two professional scientists, Paul Cannon (Royal Botanic Gardens, Kew) and Holger Thüs (Natural History Museum, London); two part-time lichenologists, Graham Boswell and Maxine Putnam; two intermediate amateurs, Catherine (SharpEyes) Tregaskes and Fay Newbery; and two lichen apprentices from the recent Making the Small Things Count project run by PlantLife and supported by the BLS in the South West of England, Adam Smith and David Brabban. This breadth of knowledge and experience turned out to be one of the most influential factors in the success and enjoyment of the week (not least because there were both a number of good cooks in the group and an equal number of good washer-uppers!). The variety and breadth of discussions in the field and in the evenings was a consequence of this diversity.

The group stayed in a holiday let backing onto the beach in Hugh Town on St. Mary's, with enough space to set up microscopes, a large multi-functional dining room table for examination of specimens and enough comfy sofas to sink into for that first cuppa after a hard day out.

Saturday evening - St Mary's

After a smooth crossing from Penzance on the Scillonian, cases were left in the accommodation and the group headed out past the Garrison above Hugh Town towards Doctor's Keys to search for *Heterodermia*. A memorial bench, placed to look out over the sea, proved a serious distraction with the first sighting for the week of *Pertusaria pluripuncta*. This turned out to be widespread across the islands, occurring on

lignin, turf and rock. On Doctor's Keys themselves, despite records from the 1990's, there was no sign of *Heterodermia leucomela* or *Gyaleta jenensis* var *macrospora* but good specimens of *Roccella fuciformis* were seen.

Sunday - Bryher

Ferries between the islands in the Isles of Scilly archipelago run daily from Hugh Town on St. Mary's. Most leave at the civilised time of 10.00 or 10.15 and offer open-boat transportation. This, of course, is only a pleasant experience in the absence of rain. It is a testament to Paul's organisational skills that no rain was experienced during any sea crossing between the islands throughout the entire week. Waterproofs were still useful for breaking the wind and fending off occasional spray, however.

Bryher is home to approximately 80 people. There are few signs of active farming, with daffodil fields mostly in poor condition. The only grazing animals seen were a flock of geese. Provision for tourists is minimal, but friendly, with maps of the island available on the quays and a waiting room at the largest quayside. This was provisioned with information about island life and two huge rolls of carpet waiting for collection by a local household!

Two coastal species from Bryher: *Lecanora zosterae* (left) and *Teloschistes flavicans* (right)

Heterodermia leucomela [see front cover of this Bulletin] occurs in extremely short, discontinuous coastal turf. It has a particular liking for the edges of flat rocks sunk in the turf but also occurs in the turf itself. Population counting is challenging since it is difficult to tell whether individual lengths of thallus are part of the same individual or not. Holger has developed a method for counting 'patches' defined as thalli clearly separated by one centimetre or more from its neighbours, although even this clear methodology results in extremely different counts by different people! At the site seen in Hell's Bay *H. leucomela* is holding its own while *H. propagulifera* is clearly expanding. These populations exist on a narrow strip of approximately level turf at the cliff edge maintained by rabbit grazing and light trampling but threatened by erosion. Some previously surveyed sites on the islands have simply fallen away and are gone. With

more extreme weather becoming more frequent in the Isles of Scilly this represents an increasing threat to coastal turf species.

One largish section of cliff edge turf was found broken off from the cliff and suspended part way down the crumbled cliff face. The slab of habitat was large enough to accommodate half a dozen lichenologists at a time and revealed small populations of *Lobaria pulmonaria* and *Nephroma laevigatum* which are, unfortunately, doomed to be washed away by another storm. Fellow passengers from the ferry expressed concern that lichenologists might fall away too!

Heterodermia populations were also checked at Shipman's Head and Poppleslope Brow.

Monday – Tresco

Ferry landing on the islands depends on the tides. The group were dropped at the southernmost tip of Tresco due to the low tide and faced a long hike up to Castle Down in the north to look for *Heterodermia* amongst the wind-swept coastal turf. One known site for *H. leucomela* had been eroded away but other sites seemed to be intact. Maxine and Graham put Fay, Adam and David through their lichenological paces on a siliceous rock at the cliff edge while Holger, Paul and Catherine went on to assess another *Heterodermia* site. *H. propagulifera* was clearly increasing (although having Catherine EagleEyes present does help to make sure every small scrap of *Heterodermia* features in population counts!).

Counting *Heterodermia* colonies at Castle Down, Tresco

Two members of the *Physciaceae* from Castle Down: *Heterodermia leucomela* (left) and *Anaptychia ciliaris* subsp. *mamillata* (right). Either there are two distinct ecotypes of this last species in Britain, or we have two species masquerading as one….

Teloschistes flavicans was also seen on rocks and amongst the turf on the west side of Castle Down providing a vivid splash of colour. The ferry off the island left from the western quay shortening the return hike. One of the great benefits of lichenology is the presence of lichen covered walls to help while away any spare minutes spent waiting for transport so the records from the trip do include quayside walls!

Tuesday – Great Ganilly

Great Ganilly is an un-inhabited island amongst the Eastern Islands. This island group is much visited by bird-watchers. Landing is prohibited but regular boat trips throughout the summer season bring visitors within spotting distance of nesting colonies for guillemots, gulls, oyster-catchers and puffins. The Isles of Scilly Wildlife Trust had granted permission for the group to land on Great Ganilly which had not been previously surveyed for lichens. Landing involved a chartered boat from Hugh Town which anchored off shore and being ferried to shore in an inflatable dingy.

What the best-dressed lichenologists wear on Great Ganilly…

The shoreline was explored for a while, especially by the newer lichenologists, as a chance to make records and to get to grips with some typical acidic rock shore species. The island included *Calluna* heath, rough coastal grassland, bracken and brambles, granite outcrops, a single stunted tree of P*runus spinosa* and a small area of *Thymus* heath on sand. EagleEyes spotted *Acarospora*

subrufula on an east-facing outcrop and then took a well-deserved rest to watch a group of fifteen seals that had spent hours intently watching the strange two-legged animals climbing over the rocky outcrops at the highest point of the island. They were probably wishing it was safe to come out and play on the sandy shore. *Acarospora subrufula* was one of the group's Lost & Found target species and was the undisputed highlight of the 60+ lichen species recorded on the island. One large thallus of *Heterodermia leucomela* was found on one of the rock outcrops but there was no short turf habitat available for *H. propagulifera*.

Acarospora subrufula on rocks just above the splash zone, Great Ganilly

Wednesday – Tresco

Tresco is the only island in the Isles of Scilly where the Wildlife Trust does not manage a large proportion of the land. Instead the influence of the Abbey Gardens dominates, in the south in particular. Hottentot fig (*Carpobrotus edulis*) is visible as soon as visitors land at the southern quay. This gives way to the bromeliad *Fascicularia pitcairnifolia* on the sand behind the cliffs while *Agapanthus praecox* and the hottentot fig have invaded the southern heathland. The largest British population of *Lobaria scrobiculata* occurs on the north side of a granite outcrop in this heathland accompanied by good growth of *L. pulmonaria* but this area is threatened by brambles, *Agapanthus* and hottentot fig.

The Abbey Gardens are well-known as a site for *Sticta* spp. Two of the newly recognised species were seen on damp shaded walls: *S. fuliginoides* and *S. ciliata*. A stunning lichen site that has not been previously noted is a length of lane on the east side of the island approaching Old Grimsby. The lane is lined with un-mortared granite

Lobaria species on Tresco: *L. scrobiculata* on coastal dunes (left) and *L. virens* [image © Fay Newbery] on a roadside wall (right).

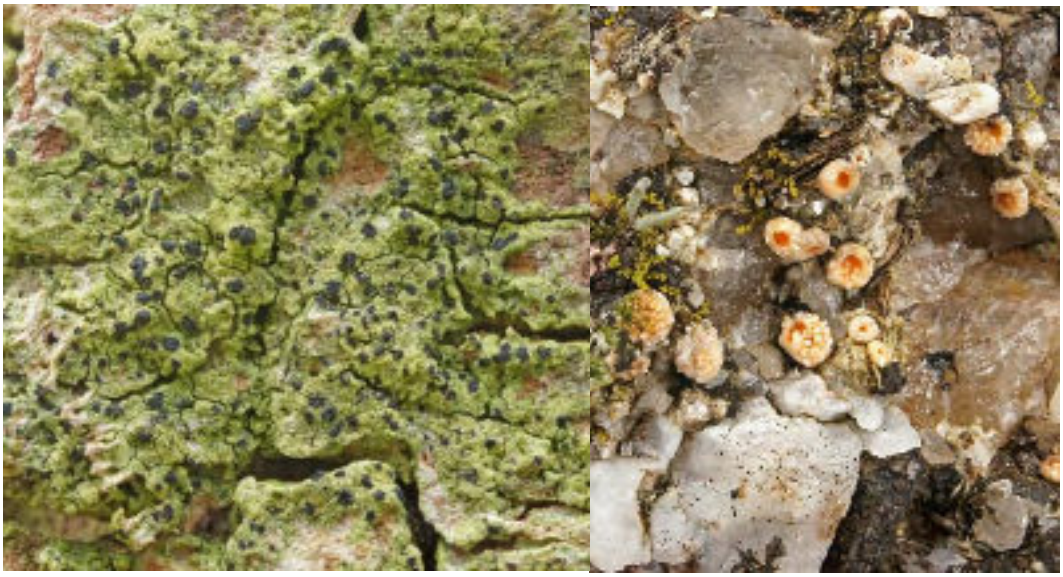
walls which have shrubs overtopping them on the seaward side and probably sport tall vegetation in the summer months. Two metres of west-facing wall are covered with large (20-30 cm) thalli of *Lobaria virens*. This is not a species which is expected to be exposed to full sunlight at any time of year! It is the first record for *L. virens* on Tresco and only the second recent record in the Isles of Scilly. On the other side of the lane, slightly closer to Old Grimsby, the stones on the top and side of the granite wall are covered with *Gyaleta jenensis* var *macrospora* for a distance of more than 10 metres despite little chance of either basic or salt influences which were believed to be required by this species.

Thursday – St Mary's

Bad weather was booked for Thursday - maybe Paul felt it would be greedy to book dry days throughout the week – so the group stayed on St. Mary's. The first task for the day was to check on populations of *Bacidia incompta*. This is an epiphytic species that has a preference for mature elm trees. Elm still exists on the Isles of Scilly as mature trees whereas it is almost exclusively limited to suckers and young trees on the British mainland. *B. incompta* occurs in run-off tracks below old wounds on the trunks, producing characteristic petrol-green streaks with black apothecia. It appears to be limited to the undersides of sloping trunks. At its site in Watermill Lane it has been saved from destruction through the vigilance of the Isles of Scilly Wildlife Trust. Holger had surveyed the population in 2012 as part of a NHM Collection Enhancement project and had reported the site to the Wildlife Trust. The Trust was therefore able to arrange the preservation of the host trees when the line of roadside elms were planned for removal. The Trust have also undertaken the removal of ivy from the trunks in order to prevent the exclusion of *Bacidia* due to severe shading.

In Watermill Cove a small stream meets the sea. This has moved its stream bed approximately 5 metres from its position in 2012 but still supports a population of *Verrucaria aquatilis*. *V. ditmarsica* is also present at the stream mouth, growing on a cliff face that is wet with runoff from the land above and influenced by salt spray at high

tides. A nearby un-mortared field wall held another population of *Gyaleta jenensis* var *macrospora* on the semi-shaded top.



Bacidia incompta on elm trees, Watermill Cove, St Mary's (left), *Gyalecta jenensis* var. *macrospora* on maritime granite, Great Ganilly (right).

A second population of *B. incompta* still exists at the entrance to Holy Vale Nature Trail but here ivy has not been controlled. The nature trail follows a raised 'path' through a wet woodland with elms of all sizes growing on the raised path. These are coated in *Enterographa crassa*. The group had great difficulty trying to separate *Ramalina farinacea* (which was frequently found fruiting) and *R. portuensis*. Various 'hopefuls' for *R. portuensis* were collected during the week for thin layer chromatography work at the Natural History Museum.

Drum rock on the coast holds a strange community of mosses, *Cladonia* spp and epiphytes (including *Hypogymnia tubulosa*, *H. physodes* and *Usnea* spp) mixed with coastal species. Both *Roccella fuciformis* and *R. phycopsis* occurred on the seaward side on slightly overhanging rock faces. *Melanelexia fuliginosa* was found bearing fruit. The group managed to brave the wind and rain to check a *Heterodermia leucomela* site on Giant's Castle where no change was found and then marched home to enjoy the sofas and two or three cups of tea/coffee apiece.

Friday – St. Martins and White Island

Good weather and low tide had been booked for the group's trip to White Island. This is a small island to the north of St. Martin's. It can be reached by crossing a rocky causeway at low tide. This is a known site for the two *Heterodermia* spp that were being monitored and for *Pseudocyphellaria aurata*. This beautiful foliose species grows in a small area on White Island in short, moist turf and is easily recognised by the bright yellow soredia on the wavy edges of its thallus. It is so prolific once found that it is difficult to walk without treading on it! The species dominates an area of turf high on

the side of a gulley that is slowly cutting through the island from the north-east. The turf is protected from winds coming from the majority of directions but looks likely to be subjected to salt spray in stormy weather. Rabbits are prolific on the island and are helping to keep the turf short. Large thalli of *Lobaria pulmonaria* are also present at the same site and small amounts of both *Nephroma laevigatum* and *N. tangeriense*.

Pseudocyphellaria aurata growing in quantity in rabbit-grazed maritime turf, White Island

At the furthest end of the gulley where it is cutting back into the lower part of the island, an area of extremely short and broken turf supports a large, expanding population of *Heterodermia propagulifera*. This area is not only rabbit-grazed but is

subjected to human trampling as visitors to the island pass around the end of the gulley. Small amounts of *Heterodermia leucomela* were also found in the turf.

The horizontal survey technique demonstrated on White Island …

St. Martin's Head has previously been reported as a site for *Lobaria pulmonaria*. This has been described as occurring in the wave heath on the top of the peninsula. Wave heath occurs when the prevailing winds kill the windward side of *Calluna vulgaris* shrubs resulting in a pattern of dead stems to windward and tightly-packed fresh growth on the more sheltered side of the shrubs. Very short wave heath had been observed on Castle Down on Tresco, whereas the 'waves' on St. Martin's Head were 30-40 cm tall. No *Lobaria* was found amongst the waves despite an extensive search but *Lobaria pulmonaria* was present in profusion on the west side of the headland. A small quantity of *Nephroma laevigatum* was also found and a previously unreported population of *Pseudocyphellaria aurata*. This may represent re-colonisation of St. Martin's since *P. aurata* was not seen at this the site when it was surveyed by Brian Edwards in 2002 as part of a PlantLife survey to supply data for a biodiversity action plan for *Heterodermia leucomela*.

In all the Isles of Scilly expedition was a great success. Of the three target species for the Lost & Found project: *Acarospora subrufula* was recorded at a new site on Great Ganilly, the first properly geolocated record for Great Britain [it is otherwise known from the Channel Is]. *Heterodermia propagulifera* was re-found at multiple sites, most often with a larger population than was seen in 2014, and also recorded at new sites.

Putative specimens for *Usnea subscabrosa* were collected at two sites, one on Tresco and one on St. Mary's, though subsequent thin layer chromatography work at the Natural History Museum showed that they both belonged to the commoner *U. flammea*. Thanks to permission from the Isles of Scilly Wildlife Trust, Holger now has material of *Heterodermia propagulifera* that can be used to confirm that the Isles of Scilly populations, which are the only populations in Europe, are the same species as tropical populations.

It was fantastic to witness the expansion of the two *Heterodermia* spp. and the possible re-colonisation of St Martin's by *Pseudocyphellaria aurata*. *P. aurata* has been widespread in the archipelago in the past. To quote Holger during his excited summation of the week: this is a "symbol of hope" that the "tide is turning" for these special coastal species.

Coastal habitats in the Isles of Scilly will always be dynamic in nature due to the effects of erosion and storm damage but increased incidence of severe storms in recent years is accelerating change. And there are other threats: low turf vegetation relies on rabbit grazing and could be detrimentally affected by new outbreaks of myxomatosis; heathlands and clifftop vegetation require larger grazers to control bracken and bramble; and invasive garden plants are shading out natural vegetation. Heathlands and cliff vegetation are threatened by hottentot fig and *Agapanthus,* lesser New Zealand flax (*Phormium cookianum*) is widespread on St Martin's Head, replacing native species and diverting footpaths more successfully than gorse does! while on all the islands the evergreen shrub *Pittosporum crassifolium* threatens to shade out lichens and other organisms dependant on rock outcrops. The islands rely heavily on tourism and these colourful species are part of the attraction of the coastlines for many people but, hopefully, a balance can be maintained that leaves room for the special lichens that these islands support.

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LITERATURE PERTAINING TO BRITISH LICHENS - 58

Lichenologist **47**(6) was published on 2 November 2015, **48**(1) on 14 January 2016, and **48**(2) on 19 February 2016.

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

AHTI, T. & APTROOT, A. 2009. Two new species of *Cladonia* from the Azores. *Bibliotheca Lichenologica* **99:** 11–17. Includes the original description of *Cladonia angustiloba* Ahti & Aptroot, which resembles *C. foliacea*, but has very narrow lobes.]It has since been found in several localities on the west coasts of Ireland and Scotland.]

BLATCHLEY, I. 2016. In "Reports of outdoor meetings 2015". *Bull. Kent Field Club* 61: 9–43: Ightham Churchyard (p. 26); Lynsted Orchard (pp. 37–38). At the last site, a cherry orchard, last surveyed in 2004, there has been a marked increase in the occurrence of *Fuscidea lightfootii*, and new arrivals are *Bacidia neosquamulosa* and *Lecanora barkmaniana*. Conversely, acidophilous species have declined: *Lecanora conizaeoides* and *Hypogymnia tuberculosa* were not re-found, and *H. physodes* and *Evernia prunastri* have declined in frequency. The development of the *Parmelion* community (e.g. *Parmelia sulcata*, *Punctelia jeckeri*, *Pu. subrudecta*, *Melanelixia glabratula* and *M. subaurifera*) since 2004 is remarkable

DIEDERICH, P., LAWREY, J.D., SIKAROODI, M. & GILLEVET, P.M. 2011. A new lichenicolous teleomorph is related to plant pathogens in *Laetisaria* and *Limonomyces* (Basidiomycota, Corticiales). *Mycologia* **103:** 525–533. Describes the new basidiomycete *Laetisaria lichenicola* Diederich, Lawrey & D. Broeck, the first lichenicolous member of the genus *Laetisaria* Burds. (1979). [Originally reported from Luxembourg, Belgium and Germany, this species has since been found to be widely distributed in the British Isles, similarly on *Physcia adscendens* and *P. tenella*].

FRISCH, A.; THOR, G.; SHEIL, D. 2014. Four new Arthoniomycetes from Bwindi Impenetrable National Park, Uganda – supported by molecular data. *Nova Hedwigia* 98: 295–312. From phylogenetic analyses, *Arthonia zwackhii* is referred to *Reichlingia* as *R. zwackhii* (Sandst.) Frisch & Thor. The previous unidentified substance "A" in this species is found to be 2'-*O*-methylperlatolic acid.

HEUCHERT, B. & BRAUN, U. 2006. On some dematiaceous lichenicolous hyphomycetes. *Herzogia* 19: 11–21. Includes original description of *Cladosporium licheniphilum* Heuchert & U. Braun, recently reported from eastern England.

KOŠUTHOVÁ, A., FERNÁNDEZ-BRIME, S., WESTBERG, M. & WEDIN, M. 2016. *Collolechia* revisited and a re-assessment of ascus characteristics in *Placynthiaceae* (*Peltigerales*, Ascomycota). *Lichenologist* 48: 3–12. The supposed

difference in ascus structure between the monotypic *Collolechia* and *Placynthium* is demonstrated to be not so, and phylogenetic study shows that *Collolechia* is well nested within *Placynthium*. *Collolechia caesia* should therefore be known as *Placynthium caesium* (Fr.) Jatta (1900).

LÜCKING, R. & MCCUNE, B. 2012. *Graphis pergracilis* new to North America, and a new name for *Graphis britannica* sensu Staiger *auct*. *Evansia* 29: 77–84. The name *Graphis inustuloides* Lücking is introduced to replace *Graphina anguina* auct. europ. and the invalid *Graphis britannica* Staiger.

ORANGE, A. 2015. A new freshwater *Porina* (*Porinaceae*, *Ostropales*) from Great Britain. *Lichenologist* 47: 351–358. Differs from *P. lectissima* in its smaller perithecia and ascospores, and from saxicolous forms of *P. leptalea* by its slightly larger perithecia and different pigmentation of the perithecial wall.

PALMER, K. 2016. Lichen report 2015. *Bull. Kent Field Club* 61: 54–55. An overview of lichenological activity in Kent in 2015. The increase in the occurrence of *Fuscidea lightfootii* is noted (see Blatchley above), as well as the increasing abundance of *Candelaria concolor*. [There are many other interesting snippets – difficult to summarise here.]

SCHULTZ, M., WEDIN, M., DIEL, H. & PRIETO, M. 2015. *Epiphloea* belongs in *Collemataceae* (Lecanoromycetes, lichenized Asomycota). *Lichenologist* **47:** 369–378. Phylogenetic analyses and more detailed studies of ascus structure show that *Epiphloea byssina* belongs in *Leptogium* s. str., and returns to being *Leptogium byssinum* (Hoffm.) Zwackh ex Nyl.

SEAWARD, M.R.D. 2015. Checklist of Lincolnshire lichens and lichenicolous fungi. *Trans. Lincs. Nat. Un.* 28: 219–228. An update after eleven years of this checklist. The list now stands at 345 taxa, but as the author says, this large county offers plenty of scope for lichenological studies.

VAN DEN BOOM, P.P.G & VĚZDA, A. 1995. A new species and a new variety of the lichen genus *Gyalidea* from Europe. *Mycotaxon* 54: 421–426. Includes the original description of *Gyalidea hyalinescens* var. *pauciseptata* van den Boom, recently added to the British Isles list.

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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 1XW, 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, as these are used in the database and on the NBN Gateway), 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 can be sent to me on e-mail, my address is cjbh.orchldge@freeuk.com, 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*.

New to the British Isles

Cladonia angustiloba Ahti & Aptroot (2009): E-facing slope of central valley, Eilean an Taighe, Shiant Islands, VC 110, Outer Hebrides, 18(NG)/42130.96861, alt. 55 m, August 2014, Coppins 25026 (E). Conf. T. Ahti & S. Stenroos. Differs from *C. foliacea* in having narrower lobes and a more or less cushion-forming habit. For full description and illustrations see Ahti & Aptroot in *Bibliotheca Lichenologica* **99:** 11–17 (2009). **BLS No. 2668.** *B.J. Coppins*

Cladosporium licheniphilum: lichenicolous on *Xanthoria parietina*, on *Crataegus* in roadside hedge, Burton Latimer, VC 32, Northamptonshire, GR 42(SP)/901.759, February 2016. Herb. Powell 4010. Causing considerable damage to the host, mainly affecting the apothecia, and causing a minutely 'furry' appearance due to the protruding conidiophores. Colonies dark reddish-brown. Mycelium immersed, conidiophores erect, straight to slightly curved, unbranched (or occasionally branched), conidiophores (65-)90-190 × 5-8 µm (widest at base and tapering upwards). Conidiogenous cells terminal with a single, or several coronate conidiogenous loci. Conidia catenate, subglobose, limoniform to ellipsoid-subcylindrical, 0- to 1-septate, aseptate conidia 3.5-8 × 3-5 µm, septate conidia 7-13 × 5-7 µm. Conidiophores less richly branched than in the type specimen (in apothecia of *Pertusaria alpina*) but similar material found on *X. parietina* in Luxembourg and Austria has been named as *C. licheniphilum*. For full description see Heuchert & Braun (2006) in *Herzogia* **19:** 11-21. **BLS No. 2669** and see also *Other Records*. *M. Powell*

Gyalidea hyalinescens* var. *pauciseptata van den Boom (1995): on horizontal surface of a stack of bricks, Collier Brick Pit, Marks Tey, VC 19, North Essex, 52(TL)/912.241, alt. 35 m, May 2014, coll. J.F. Skinner (E); det. B.J. Coppins. The bricks were at the site where they were made, so the lichen was not imported. Differs from *G. hyalinescens* var. *hyalinescens* in having smaller apothecia, 0.15–0.25 (–0.3) mm diam. and submuriform ascospores with 3-4 transsepta and (0–)1–2(–4) longisepta, 10–15 x 4–6 µm. The young apothecia have a greenish grey upper part to the margin, but this fades as the apothecia expand. Probably worthy of species rank on account of its apothecial size combined with muriform ascospores. The collection sent to BJC had only immature, 3-septate ascospores, but one of the pieces of brick was 'grown-on' in a sheltered spot in his garden for about two months, after which time plenty of mature ascospores were seen in sections. For original description see van den Boom & Vězda in *Mycotaxon* **54:** 421–426 (1995). **BLS No. 2670** *J. F. Skinner and B. J. Coppins*

Hainesia xanthoriae: Brackel (2009): parasitic on apothecium of *Xanthoria parietina*, on twig of *Crataegus* bush near edge of recent *Fraxinus* woodland on downland, close to arable land, Kits Grave, Martin, VC8, South Wiltshire, GR1(SU)031.205, alt 130, July 2014. this fungus forms black cupulate conidiomata, 100-220 µm in diam, on the thallus and apothecia of *Xanthoria*, which produce filiform condia over 50µm long. There is a key to *Hainesia*, including this species in Diederich, P. & P. van den Boom, 2013. Two new lichenicolous species of *Hainesia* (asexual Ascomycetes) growing on *Cladonia. Bulletin de la Socie□te□ des naturalistes luxembourgeois* **114**: 59-63. *http://www.snl.lu/publications/bulletin/SNL_2013_114_059_063.pdf* and pictures in Eichler *et al.*, 2010. New or interesting lichens and lichenicolous fungi from Belgium, Luxembourg and northern France. XIII. *Bulletin de la Societe des naturalistes luxembourgeois* **111**: 33-46. *http://snl.lu/publications/bulletin/SNL_2010_111_033_046.pdf*. **BLS No. 2671** *N. A. Sanderson & G. Copsey*

Laetisaria lichenicola Diederich, Lawrey & D. Broeck (2011): on *Physcia adscendens* on *Acer platanoides*, Archer Avenue, Temple Sutton, Southend-on-Sea, VC 18, South Essex, 51(TQ)/901.871, alt. 20 m, January 2015. Conf. B.J. Coppins. For full description and illustrations see Diederich *et al.* in *Mycologia* **103:** 525–533 (2011). **BLS No. 2667.** See also ***Other Records***. *P. M. Earland-Bennett*

Sticta atlantica Magain & Sérus. (2015): in disturbed *Quercus* woodland, Tomies Wood, west of Lake Killarney, Kerry, VC H2, South Kerry, **GR 00(V)/93-87-,** alt 90–100 m, February 2014. Herb. E. Sérusiaux s.n. **(LG)**. A distinctive species, with 1 – 2 branching lobes, not particularly reminiscent of the other members of the *Sticta fuliginosa* group, the upper surface with irregular swellings or ridges, from which laminal isidia always develop, forming coralloid stipitate masses. Not yet found elsewhere in Britain or Ireland and may be a rare species. **BLS No. 2663.**
E. Sérusiaux. Also descriptive notes by *N. A. Sanderson*

Sticta ciliata Taylor (1836): Type: Ireland, on *Hypnum* on the stems of trees in Akew Wood, probably Askew, County of Kerry, VC South Kerry GR H2(V)/7--6--. T. Taylor (BM, lectotype selected by Galloway, Nova Hedwigia 61: 168, 1995) and was erroneously considered previously to be a synonym of *S. canariensis [S. dufourii*]. It is a

recently resurrected species in the dismantling study of *Sticta fuliginosa* in Western Europe. Reference: *Magain, N. & Sérusiaux, E. (2015). Dismantling the treasured flagship lichen Sticta fuliginosa (Peltigerales) into four species in Western Europe. Mycological Progress, doi 10.1007/s11557-015-1109-0.* The type comes from Ireland where the species has been recently re-collected, and is here first confirmed with ITS barcoding from Scotland where it is expected to be widespread, although it was not found in samples assembled in Dunvegan park. It is easily identified by its very fragile and usually ciliate thalli, and numerous papillae on cells of the cyphella membrane, and by the ITS barcode. *Sticta ciliata* belongs to a complex assemblage of taxa occuring in Western Europe, Macaronesia, Colombia, Hawaii archipelago and central Africa. **BLS No. 2664**. *E. Sérusiaux* with initial notes by *B. J. Coppins*

Sticta fuliginoides Magain & Sérus. (1995): (i) on *Corylus avellana*) in heavily disturbed hazel coppices, Isle of Skye, VC 104, North Ebudes, GR NG71, alt. 65m, April 2015, E. Sérusiaux LG-DNA 4328, 4329 (LG); on several trees (Quercus, Acer) in parkland conditions at Dunvegan, Isle of Skye, GR NG247489, 20m, April 2015, E. Sérusiaux LG-DNA 4314 (LG). Four other species of *Sticta* occur at the same locality: *S. canariensis*, *fuliginosa*, *limbata* and *sylvatica*, but *S. ciliata* has not been seen. S. fuliginoides is a recently described species in the dismantling study of Sticta fuliginosa in Western Europe (Magain & Sérusiaux 2015). Easily recognized by its rounded and monophyllous (and then typically mushroom-like) thalli when young or with several rounded lobes, hardly dissected, usually dark brown, margin typically involute, rarely sparsely ciliate on regenerating lobules; as for *S. ciliata*, papillae occur on cyphella membrane but are quite few. The ITS barcode is also distinctive. So far known in Western Europe, the Canary Is., eastern North America and Colombia. **BLS No. 2666.** *E. Sérusiaux*

Sticta fuliginosa (Hoffm.) Ach. [sensu stricto]: with the re-evaluation of *Sticta* taxa, Reference: *Magain, N. & Sérusiaux, E. 2015. Dismantling the treasured flagship lichen Sticta fuliginosa (Peltigerales) into four species in Western Europe. Mycological Progress, doi 10.1007/s11557-015-1109-0.* It can identified in the field largely by it lack of the distinctive features of the other species, generally larger size and lack of a recurved margin. Magain & Sérusiaux confirmed this species from near Tavistock, in 10 km square GR 20(SX)/5--7--, 2014. Since the paper was published this taxa has been identified in other locations in south west England and in North Wales and is probably found widely though out the range of *Sticta fuliginosa s. lat*., but so far has never been as frequent as either *S. ciliata* or *S. fuliginoides* when this species occurs with one or other of these species. *Sticta fuliginosa* (Hoffm.) Ach. (Magain & *Sérus.* **s. str.** (2015)) has a new number, **BLS No. 2665**.

E. Sérusiaux. Also descriptive notes by *N. A. Sanderson*

Other records

Abrothallus welwitschii: on *Sticta limbata* amongst moss on *Quercus* trunk at Allabury ring, Trebartha, VC 2, East Cornwall, GR 20(SX)/25789.76948, March 2016. Herb. P.A. Gainey. Determined by B. Edwards. New to the Vice-county. *P. A. Gainey*

Abrothallus welwitschii: on *Sticta sylvatica* in stunted marshy woodland, Mountfield CWT, Cubert, Cornwall, VC1 West Cornwall, GR 10/78-56-, April 2008. Herb. Hitch (O24). Determined by B.J. Coppins. Collected during the BLS meeting with P.W. Lambley. *C.J.B. Hitch*

Abrothallus welwitschii: parasitising *Sticta ciliata* & *Sticta fuliginosa s. str.,* the hosts on collapsed and regrowing *Salix cinerea* bushes invading a lightly grazed wet meadow in parkland, Dunsland Park, VC 4, North Devon, GR 21(SS)/4104.0512, 21(SS)/4093.0496 & 21(SS)/4102.0487, alt 120-130 m, November 2015. Third record for England and Devon for this species. The species parasitised both members of *Sticta fuliginosa s. lat*. present at the site. *N.A. Sanderson*

Acarospora cervina: on top of concrete dam wall, Grafham Water, VC 31, Huntingdonshire, GR 52(TL)/169.676, December 2015. Herb. Powell 3955. New to the Vice-county. *M. Powell*

Acarospora moenium: on disintegrating iron-stained horizontal surface of concrete wall, south of Great Eastern Avenue, Southend-on-Sea, VC 18, South Essex. GR 51(TQ) 880.862, February 2016. Herb. K(M). New to Essex. *J.F. Skinner*

Acarospora moenium: on south-southeast-facing vertical side of corrugated asbestos cement roofing sheets incorporated into sheep-pen fencing by trackside barn, c.0.5km southwest of Banc Mynyddgorddu, VC 46, Cardiganshire, GR 22(SN)/660.857, alt 186 m, February 2016. Herb. SPC. New to Wales. *S.P. Chambers*

Agonimia octospora: on old *Ulmus glabra* & *Fraxinus* in upland pasture woodland, Hafod-y-llan, Nant Gwynant, VC 49, Caernarvonshire, GR 23(SH)/6319.5149 & 23(SH)/6331.5171, alt 80 m & 140 m respectively, November, 2015. First records for this species for Caernarvonshire. *N.A. Sanderson, A.M. Cross & D. Lamacraft*

Agonimia opuntiella: in damp runnels on granite, Sourton Tor, VC 4. North Devon, GR 20(SX)/545.898, alt 440 m, August 2015. Field record. Determined by B. Benfield. *Devon Lichen Group*

Arthonia anglica: a single thallus on ancient *Ilex* pollard, within *Quercus – Ilex* pasture woodland, Matley Wood, New Forest, VC 11, South Hampshire, GR 41(SU)/3347.0763, alt 30 m, April 2016. First record for this rarely recorded Endangered RDB and Section 41 species from the New Forest since 1868 and the first for England since 1998. For more detail of this species, visit *http://wessexlichengroup.org/news/Arthonia_anglica/* *N. A. Sanderson*

Arthonia ilicinella: on a suppressed young *Ilex*, within *Ilex* woodland in ravine, Ceunant Cynfal, Ffestiniog, VC 48, Cardiganshire, GR 23(SH)/7046.4117, alt 130 m, April 2015. A significant addition to the assemblage of hyperoceanic *Graphidion* species found in ravines, draining into the Vale of Ffestiniog. New to Wales.

N.A. Sanderson, A.M. Cross & D. Lamacaft

Arthonia invadens: parasitising *Schismatomma quercicola* on two old *Quercus*, Ceunant Cynfal, VC 48, Merionethshire, GR 23(SH)/7071.4106, alt 140 m, April 2015. Third record for Wales for this species. *N.A. Sanderson, D. Lamacraft & A. Seddon*

Arthonia molendoi: lichenicolous on *Xanthoria parietina*, Knotting, VC 30, GR 52(TL)/01-62-, February 2016. Herb. Powell 3991. New to the Vice-county.*M. Powell*

Arthonia molendoi: lichenicolous on *Xanthoria parietina*, Mepal (St Mary) churchyard, VC 29, Cambridgeshire, GR 52(TL)/440.810, February 2016. Herb. Powell 3998. New to the Vice-county. *M. Powell and Cambridge Lichen Group*

Arthonia molendoi: lichenicolous on *Xanthoria parietina*, on roadside *Crataegus*, Burton Latimer, VC 32, Northamptonshire, GR 42(SP)/901.759, February 2016. Herb. Powell 4011. New to the Vice-county. *M. Powell*

Arthonia phaeophysciae: on *Phaeophyscia orbicularis*, 12 Acre Wood, Studland. VC 9, Dorset, GR 40(SZ)/028.408, May 2015. Herb. J. Seawright. Confirmed by B. Edwards. New to the county. *J. Seawright*

Arthonia punctella: On *Diplotomma alboatrum* Church Ope Cove, Portland, VC 9, Dorset, GR 30(SY)/698.107, February 2016. Herb. J. Seawright. Confirmed by B. Edwards. New to the county. *J. Seawright*

Arthopyrenia carneobrunneola: on *Corylus* deep in oceanic ravine, Ceunant Cynfal, VC 48, Merionethshire, GR 23(SH)/7001.4129, alt 80 m, April, 2015. Third Welsh record for this hyper-oceanic species. *N.A. Sanderson & A.M. Cross*

Arthopyrenia nitescens: on old *Fagus*, within *Fagus – Ilex – Quercus* pasture woodland, Denny Wood & French's Bushes, New Forest, VC 11, South Hampshire, GR 41(SU)/3381.0552, 41(SU)/3388.0557 & 41(SU)/973.1254, alt 20 m, 25 m & 35 m respectively, February 2011 & February 2016. There is a 19th century collection on Ilex from the New Forest. On *Fagus* bark *Arthopyrenia nitescens* is easily over looked as *Anisomeridium ranunculosporum*, with thalli only supporting pycnidia, but *Arthopyrenia nitescens* has a less strongly pink and more beige-brown thallus and grows on less acid bark. First modern records for the New Forest. Otherwise unknown from the lowlands. *N.A. Sanderson*

Arthopyrenia nitescens: on *Corylus avellana* in coastal woodland, Goultrop Roads, between Borough Head & Little Haven, VC 45, Pembrokeshire, GR 12(SM)/843.124, alt c. 60 m, August 2014. Herb. Lamacraft. Confirmed by S. P. Chambers. Second Welsh record and a new hectad, for this oceanic species, which is very rare in Wales with only one other record of it, also from this Vice-county. *D. Lamacraft*

Bachmanniomyces uncialicola: on *Cladonia rangiformis*, Ulwell Gap, Purbecks, VC 9, Dorset, GR 40(SZ)/023.810, February 2016. *J. Seawright & V. Giavarini*

Bacidia adastra: fertile on bole of *Tilea* in urban street, Woodfield Park Drive, Leigh-on-Sea, VC 18, South Essex, GR 51(TQ)/850.864, December 2015. Herb. P.M. Earland-Bennett. Becoming less common in Essex. *P.M. Earland-Bennett*

Bacidia arceutina: on bark of *Euonymus europaeus*, Cherkley Wood (between Mickleham and Headley), VC 17, Surrey, GR 51(TQ)/192.545, alt 175 m, February. 2016. Herb. P.F. Cannon P2147. Determined by M. Powell. Confirmed by B.J. Coppins. New to the Vice-county. *P. F. Cannon*

Bacidia circumspecta: on wound track of ancient *Fagus*, within *Fagus – Ilex – Quercus* pasture woodland, Anses Wood, New Forest, VC 11, South Hampshire, GR 41(SU)/2308.1270, alt 80 m, December 2015. A new site for this Vulnerable & Section 41 lichen and the first record of it from this 10km national grid square since 1976. *N. A. Sanderson & Wessex Lichen Group*

Bacidia neosquamulosa: fertile on bole of *Acer*, Beacon End, Colchester, VC 19, North Essex, GR 52(TL)/960.249, March 2016. Herb. P.M. Earland-Bennett. Becoming scarcer in Essex, as is *Bacidia sulphurella*, which had its heyday in the 1980's (as *B. arnoldiana f. corticola*). *P.M. Earland-Bennett & J.F. Skinner*

Bacidia squamellosa: on stem of collapsed *Salix cinerea*, in scrub on floodplain, Anses Wood, New Forest, VC 11, South Hampshire, GR 41(SU)/2216.1243, alt 70 m, May 2015. New to Hampshire and lowland England.
N.A. Sanderson, Wessex Lichen Group & BBS Southern Group

Bacidia squamellosa: on leached acid trunk of old *Alnus glutinosa* in stream valley woodland, in west arm of the Nant Melyn, southeast of Nant Moel, near Hirwaun, VC 42, Breconshire, GR 22(SN)/978.063, alt 200 m, October 2015. Herb. SPC. New to the Vice-county. *S.P. Chambers & C.M. Forster-Brown*

Buellia badia: on nutrient-enriched softwood fence rail around playground, in suburban environment, adjacent to houses and railway line, Bow Street, VC 46, Cardiganshire, GR 22(SN)/621.846, alt 20 m, December 2015. Herb. SPC. First Vice-county & second Welsh record for this species. Only previously recorded in Wales from Llanelwedd Rocks, VC 43, Radnorshire, in 2000. *S.P. Chambers*

Buelliella physciicola: parasitic on *Phaeophyscia orbicularis*, growing on top of concrete dam wall, Grafham Water, VC 31, Huntingdonshire, GR 52(TL)/169.676, December 2015. Herb. Powell 3954. New to the Vice-county. *M. Powell*

Calicium diploellum: on lignum exposed within lenticels on old *Ilex*, where the surrounding bark was dominated by *Mycoporum lacteum*, which see, within *Fagus – Ilex – Quercus* pasture woodland, Great Stubby Hat, Busketts Wood and subsequently recorded in three locations in Matley Wood within *Ilex – Quercus* pasture woodland, New Forest, VC 11, South Hampshire, GR 41(SU)/3075.1097, 41(SU)/3348.0767, 41(SU)/3322.0768 & 41(SU)/3347.0763, alt 30-35 m, March & April 2016. Remarkable new records for England of a species otherwise recorded from one site in western Scotland and a few in western Ireland. Searches of several other woods with old *Ilex* in the New Forest, have not yet found further sites, so the species is not general on old *Ilex* in the Forest. The species is tiny and easily overlooked, and should be searched for on old *Ilex* in oceanic woodland elsewhere. More detail can be found at *http://wessexlichengroup.org/news/Calicium_diploellum/* *N.A. Sanderson*

Caloplaca asserigena: on fallen *Larix* twigs and cones, in mixed woodland adjoining East Dartmoor NNR, VC 3, South Devon GR 20(SX)/787.794, alt 100 m, March 2016. Herb. Bacciu. Second vice county record for this species. *N. Bacciu*

Caloplaca dichroa: three records from Cardiganshire; (i) sparsely fertile on the tops of >4 marble headstones, Llangeitho Chapel, GR 22(SN)/620.598, alt 110 m, September

2015. Herb. SPC; (ii) on marble headstone in graveyard, Eglwys y Santes Fair, Llanfair Clydogau, GR 22(SN)/624.513, alt 135 m, October 2015. Herb. SPC; (iii) on marble headstone, Eglwys St Non (Llanerchaeron Church), GR 22(SN)/477.604, alt 35 m, October 2015. Herb. SPC. First & subsequent Vice-county records for this species. *S.P. Chambers*

Caloplaca pyracea: on horizontal branch of roadside *Populus tremula*, Foulness Island, VC 18, South Essex. GR 51(TQ)/986.900, June 2015. Herb J.F. Skinner and photographed. Confirmed by M. Powell. *J.F. Skinner*

Caloplaca pyracea: on painted metal rail of balcony, 44, Sherwood Way, Southchurch, Southend-on-Sea, VC 18, South Essex, GR 51(TQ)/902.870, March 2015. Herb. M. Powell (3941). Determined by M. Powell. New to Essex. *P.M. Earland-Bennett*

Catillaria chalybeia var. chloropoliza: on metamorphic rocks beside River Tavy below Hill Bridge, VC 4, North Devon, GR 20(SX)/521.802. October 2015. Herb. B. Benfield. Determined using microscope. *B. Benfield, N. Bacciu & R. Hodgson*

Catillaria fungoides: with *C. nigroclavata* on branch of *Malus* in old orchard, Langham Water Treatment Works, VC 19, North Essex, GR 62(TM)/025.344. November 2015. Herb. J.F. Skinner. Confirmed by M. Powell. New to Essex. *J. F. Skinner*

Chrysothrix candelaris: minute 'specks' on the faces of siliceous stone blocks on sheltered, dry north-facing church wall, Eglwys St Non (Llanerchaeron Church), VC 46, Cardiganshire, GR 22(SN)/477.604, alt 35 m, October 2015. Field record. First saxicolous record of this species for the Vice-county. *S.P. Chambers*

Cladonia angustiloba: on open patches of thin soil over rock, in very exposed costal heath and *Armeria maritima – Plantago maritima* maritime grassland on coastal slopes above cliffs, Clogher Head, Dingle Peninsula and Ducalla Head, Iveragh Peninsula, VC H1, South Kerry, GR 01(Q)/305.027, 00(V)/376.631 & 00(V)/379.630 respectively, alt 50-100 m, September 2015. This oceanic species is likely to be widespread along the west coast of Ireland, where it has probably previously been recorded as *Cladonia foliacea*. At the Irish sites seen so far, no *Cladonia foliacea* was found, whch is a different situation from observations in Scotland. Photographic evidence held by Jenny Seawright indicates that *Cladonia angustiloba* may also occur inland in Co. Kerry, on thin acid soil over rock. New to Ireland. *N.A. Sanderson*

Cladonia angustiloba: on turf on low basalt outcrop, at east part of island, northeast of Dùn Beag, Sanday, VC 104, North Ebudes, GR 18(NG)/28926.03773, alt 20 m, April 2015, Coppins 24880 (E). Confirmed by T. Ahti & S. Stenroos. Second Scottish record for this species and new to Vice-county. *B.J. Coppins*

Cladonia cyathomorpha: on rock slab in glade and on base of *Corylus*, within upland pasture woodland, Hafod-y-llan & Ochr Bwlch, Nant Gwynant, VC 49, Caernarvonshire, GR 23(SH)/6366.5177 & GR 23(SH)/640.522, alt 100 & 180m respectively, November 2015. New to the Vice-county. *N.A. Sanderson, D. Lamacraft & A. Seddon*

Cladonia stereoclada: frequent on sheltered sides of rock outcrops in exposed coastal heath, growing on bryophyte mats between boulders, on the tops of rock and on ledges below, occasional in open patches of thin soil over rock, in very exposed costal heath

and *Armeria maritima – Plantago maritima* maritime grassland, with associated species at the first site including *Cladonia angustiloba*, *Cladonia cyathomorpha* and *Cladonia firma*, Clogher Head, and Slea Head, Dingle Peninsula, VC H1, South Kerry, GR 01(Q)/309.025, 01(Q)/309.026, 01(Q)/307.027, 01(Q)/305.027 & GR 00(V)/318.968 respectively, alt 50-100 m, September 2015. The second and third Irish localities for this rarely recorded oceanic *Cladonia*. Once the "jiz" of this species is learned, this is an easy species to identify and it should be looked for on other exposed coastal slopes in both western Ireland and western Scotland. The Slea Head locality was found by spotting likely looking habitats from the car, so the lichen is very likely to be more widespread in southwest Ireland at least. *N.A. Sanderson*

Cladonia uncialis subsp. uncialis: on acid dunes, Winterton Dunes NNR, Winterton, VC 27, East Norfolk, GR 63(TG)/4918.2028 and 63(TG)/4952.2010, October 2015. New to the Vice-county. *P.W. Lambley*

Cladosporium licheniphilum: lichenicolous on *Xanthoria parietina*, on *Crataegus* scrub, Knotting, VC 30, Bedfordshire, GR 52(TL)/01-62-, April 2016. Herb. Powell 4022. New to the Vice-county. *M. Powell*

Cladosporium licheniphilum: on apothecia of *Xanthoria parietina* on *Fraxinus* trunk, Wellesley Hospital, Southend-on-Sea, VC 18, South Essex, March 2016. Determined by B.J. Coppins. New to the vice-county. *P.M. Earland-Bennett*

Cliostomum flavidulum: several small thalli on acid bark on northwest side of old *Quercus robur* in grazed woodland, below track to Parcneuadd above the Afon Teifi, 1km northwest of Llanfair Clydogau, VC 46, Cardiganshire, GR 22(SN)/622.519, alt 145 m, October 2015. Herb. SPC. Second Welsh record & new for the Vice-county for this species. *S.P. Chambers*

Dactylospora lobariella: parasitising *Lobaria pulmonaria*, on old *Fraxinus* in grazed woodland in parkland, Dunsland Park, VC 4, North Devon, GR 21(SS)/4091.0490, alt 130m, November 2015. Third record for England and second for Devon for this species. *N.A. Sanderson*

Degelia atlantica: on three well lit rock faces flushed by base rich water, within upland pasture woodland, Hafod-y-llan, Nant Gwynant, VC 49, Caernarvonshire, GR 23(SH)/6359.5197, 23(SH)/6367.5177 & 23(SH)/6364.5175 respectively, alt 200 & 110 m, November, 2015. A new site and 10km record for a Welsh Vulnerable species. *N.A. Sanderson & D. Lamacraft*

Dermatocarpon luridum: several large ruffs along the upperside of a streamside bank, with *Fraxinus excelsior* root-stem base extending horizontally just above water-level over woodland stream, south bank of Afon Stewi, c. 300 m upstream of Troedrhiwseiri, VC 46, Cardiganshire, GR 22(SN)/677.851, alt 120 m, February 2016. Field record. *D. luridum* does not appear to have been reported before growing as an epiphyte in the fluvial zone of watercourses. *S.P. Chambers*

Didymellopsis pulposi: parasitic on *Collema tenax var. ceranoides*, the *Collema* growing on the bare clay soil among rough grassland sward of informal footpath beside arable field, Riseley, VC 30, Bedfordshire, GR 52(TL)/042.625, December 2015. Herb.

Powell 3946. The *Collema* appeared to be a recent colonist but many of the thalli were already heavily infested with mature perithecia of *D. pulposi*. New to the Vice-county.
M. Powell

Didymellopsis pulposi: parasitic on *Collema tenax var. ceranoides*, the *Collema* growing amongst sparse sward, beside cycle path, Grafham Water, VC 31, Huntingdonshire, GR 52(TL)/169.676, December 2015. Herb. Powell 3950. New to the Vice-county.
M. Powell

Endococcus (Sphaerellothecium) parietinarius: on *Rinodina oleae* on iron top, of large wooden structure on saltings, just above HWM, Lion Creek, Wallasea Island, VC 18, South Essex, GR 51(TQ)/926.947, January 2008. Herb. P. M. Earland-Bennett. Confirmed by B.J. Coppins. Rare on this host, as normally on *Xanthoria parietina* New to the County. [This item appears thus as Brian Coppins is cautious at present about renaming the taxon (pers. comm., P.M. E.-B.), but see also the other items named *Sphaerellothecium parietinarius*]. *P.M. Earland-Bennett*

Eopyrenula grandicula: on *Corylus avellana* stems in stream valley woodland, Nant Melyn, southeast of Nant Moel, near Hirwaun, VC 42, Breconshire, GR 22(SN)/977.063, alt 210 m, October 2015. Herb. SPC. New to the Vice-county.
S.P. Chambers & C.M. Forster-Brown

Fuscopannaria mediterranea: a substantial colony on old *Fraxinus*, within upland pasture woodland, Hafod-y-llan, Nant Gwynant, VC 49, Caernarvonshire, GR 23(SH)/6334.5170, alt 125m, November 2015. A new site and 10km record for this Welsh Vulnerable species. *N.A. Sanderson, A.M. Cross & D. Lamacraft*

Graphina pauciloculata: overgrowing *G. ruiziana* on *Corylus avellana* in oceanic gorge woodland, Allt Boeth, Coed Cwm Rheidol, VC 46, Cardiganshire, GR 22(SN)/737.773, alt 70 m, October 2015. Herb. Hotchkiss. Confirmed by S.P. Chambers. The fifth site for this species in the Vice-county. *A. Hotchkiss*

Gyalecta truncigena: in dank shale fissures containing blown sand at base of sea-cliff in sheltered cove, Cwmtydu, VC 46, Cardiganshire, GR 22(SN)/355.576, alt *c.*1 m, April 2015. Herb. SPC. First saxicolous record for the Vice-county for this species.
S.P. Chambers

Illosporiopsis christiansenii: occurring on various lichen species in nutrient-rich communities, Stanwick Lakes, VC 32, Northamptonshire, GR 42(SP)/96-71-, December 2015. Field record. The previous absence of this common and widespread species from the county list serves to illustrate the degree of under-recording of lichenicolous fungi. *M. Powell*

Imshaugia aleurites: with *Bryoria fuscescens* on fallen decorticate oak, Kingsnympton Park 21(SS)/659.187, VC 3, South Devon, November 2015. *Imshaugia* has not been seen in Devon for decades and *B. fuscescens* is now only on Dartmoor. Field Record.
B. Benfield

Inoderma byssaceum: intermixed with *Cresponea premnea* on well-lit, south-facing base of old maiden *Quercus* on steep slope above stream in valley woodland, Coed Nant Clywedog, east of Llanfair Clydogau, VC 46, Cardiganshire, GR 22(SN)/632.510, alt

160 m, October 2015. Herb. SPC. Confirmed by B.J. Coppins. Second British record & new to Wales for this species. *S.P. Chambers*

Intralichen christiansenii: on *Caloplaca flavescens* in churchyard, St John the Evangelist, Holme Priory, VC 9, Dorset GR 30(SY)899.859. November 2015. *J. Seawright*

Intralichen christiansenii: on *Candelariella vitellina* Redhorn Quay, Studland, VC 9, Dorset, GR 40(SZ)/021.855, May 2015. Herb. J. Seawright. Confirmed by B. Edwards. New to the county. *J. Seawright*

Intralichen lichenum: on *Lecania erysibe* in churchyard, St Stephen's, Pamphill, VC 9, Dorset, GR 31(ST)/988.009, December 2015. Herb. J. Seawright. Confirmed by B. Edwards. New to the county. *J. Seawright*

Laetisaria lichenicola (C.J.B. Hitch): For details, see under ***Lichenicolous fungi in Suffolk.***

Laetisaria lichenicola: lichenicolous on *Physcia adscendens*, Hainault Forest, London Borough of Redbridge, VC 18, South Essex, GR 51(TQ)/478.929, January 2016. Herb. Ecott. Causing considerable modification of the host, the surface of which becomes shiny except for areas where basidia are being produced (which cause a very minutely granular appearance). Basidiomata pale pink, effuse. Basidia cylindrical to clavate (25-40 × 7-5-9 µm) each producing two curved sterigmata on which broadly pyriform basidiospores (14.5-18.5 × 10.5-12.5 µm) are formed. This species could be easily overlooked, especially if the modified pinkish areas are wrongly assumed to be aftermath of infection by other lichenicolous fungi. Collected by Brian Ecott (who noticed the similarity of morphology with photographs in the following reference). Confirmed by Mark Powell. For full description see Diederich *et al*. in *Mycologia* **103:** 525–533. *B. Ecott & M. Powell*

Laetisaria lichenicola: (i-i) on *Physcia adscendens* on fallen twig of *Larix decidua*, Royal Botanic Gardens, Kew, VC 17, Surrey, GR 51(TQ)/1873.7742, alt 8 m, September. 2015, M.B. Aguirre-Hudson. Voucher specimen K(M) 199.696. Determined by P. F. Cannon. Confirmed by A. Henrici; (i-ii) refound under same tree. February. 2016. New to the Vice-county. *P.F. Cannon*

Laetisaria lichenicola: lichenicolous on *Physcia adscendens*, Sywell Reservoir, VC 32, Northamptonshire, GR 42(SP)/82.65, April 2016. Herb. Powell 4023. New to the Vice-county. *M. Powell*

Laetisaria lichenicola: on *Physcia adscendens* and *P. tenella* on azalea (*Rhododendron*) twigs, Royal Botanic Garden, Edinburgh, VC 83, Midlothian, GR 36(NT)/246.544, alt 30 m, February 2016, Coppins 25025 (E). New to Scotland. *B.J. Coppins*

Laetisaria lichenicola: on *Physcia tenella* in allotments, Kingston Lacy, VC 90, Dorset, GR 31(ST)/979.006, December 2015. Herb. J Seawright. Confirmed by M. Powell. New to the county. *J. Seawright*

Laetisaria lichenicola: on *Physcia tenella* in parish churchyard, Canford Magna, VC 9, Dorset, GR 40(SZ)/031.988 January 2016. *J. Seawright*

Laetisaria lichenicola: on *Physcia tenella*, Purbeck Golf Club, Godlingston Hill, VC 9 Dorset, GR 40(SZ)/014.818, February 2016. *J. Seawright*

Lecanora farinaria: lignicolous extensive sterile colonies, on weathered bench-seat in churchyard, St Mary, Weekley, VC 32, Northamptonshire, GR 42(SP)/888.810, February 2016. Herb. Powell 4000. *M. Powell*

Lecanora sambuci: with *Caloplaca cerinella* and *Lecania cyrtella* on twigs of *Sambucus*, River Lee Country Park, Cheshunt, VC 20, Hertfordshire , GR 52(TL) 367.021. March 2016. Herb. J. F. Skinner. Seemingly the first post-2000 record for this species for the whole of eastern England. Meeting of London NHS. *J.F. Skinner*

Lecidea ahlesii: on wet rock face in upland pasture woodland, Ochr Bwlch, Nant Gwynant, VC 49, Caernarvonshire, GR 23(SH)/6409.5231, alt 180 m, November, 2015. New to the Vice-county. *N.A. Sanderson & A. Seddon*

Leptogium gelatinosum: terricolous within curbed grave, Priory Road Cemetery, Huntingdon, VC 31, Huntingdonshire, GR 52(TL)/242.721, December 2015. Herb. Powell 3956. New to the Vice-county. *M. Powell*

Leptogium palmatum: several large patches on well lit flushed rocks rich in Lobarion species in glade within upland pasture woodland, Hafod-y-llan, Nant Gwynant, VC 49, Caernarvonshire, GR 23(SH)/6367.5178, alt 120, November, 2015. New to the Vice-county. *N.A. Sanderson & D. Lamacraft*

Leptogium subtile: on wound tracks of *Ulmus glabra* trees damaged by wild goat browsing at four locations, Hafod-y-llan & Ochr Bwlch, Nant Gwynant, VC 49, Caernarvonshire, GR 23(SH)/6340.5179, GR 23(SH)/6342.5180, GR 23(SH)/6364.5176 & GR 23(SH)/6408.5230, alt 100-190m, November, 2015. New to the Vice-county. *N.A. Sanderson, A.M. Cross & D. Lamacraft*

Leptogium subtile: terricolous on sparse stony soil, Irchester Country Park, VC 32, Northamptonshire, GR 42(SP)/91-65-, January 2016. Herb. Powell 3961. New to the Vice-county. *M. Powell*

Leptorhaphis laricis: on twigs of *Cedrus sp.* in churchyard, St Margaret, Irchester, VC 32, Northamptonshire, GR 42(SP)/925.660, January 2016. Herb. Powell 3963. New to the Vice-county. *M. Powell*

Lichenoconium xanthoriae: lichenicolous on *Xanthoria polycarpa*, Priory Country Park, VC 30, Bedfordshire, GR 52(TL)/073.493, February 2016. Herb. Powell 3992. New to the Vice-county. *M. Powell*

Lichenoconium lichenicola (C.J.B. Hitch): For details, see under ***Lichenicolous fungi in Suffolk.***

Lichenoconium xanthoriae: lichenicolous in apothecial disc of *Xanthoria parietina*, on low shrub growth in open conditions, Stanwick Lakes, VC 32, Northamtonshire, GR 42(SP)/96.71, December 2015. Herb. Powell 3922. *M. Powell*

Lichenodiplis lecanorae: on *Caloplaca flavescens* and *Caloplaca cirrochroa*, Penn's Weare, Portland, VC 9, Dorset, GR 30(SY)/703715 February 2016. Herb. J. Seawright. Confirmed by B. Edwards. New to the county. *J. Seawright*

Lichenodiplis lecanorae: parasitic on *Lecania cyrtella,* on *Fraxinus* trunk, Grafham Water, VC 31, Huntingdonshire, GR 52(TL)/166.679, February 2016. Herb. Powell 3987. New to the Vice-county. *M. Powell*

Lichenodiplis lecanorae: parasitic on *Lecanora hagenii*, on twigs of wind-blown *Populus* tree, Sharnbrook Road, Riseley, VC 30, Bedfordshire, GR 52(TL)/029.622, July 2010. Herb. Powell 1370. New to the Vice-county. *M. Powell*

Lichenodiplis lichenicola: in apothecia of *Rinodina sophodes* on fallen branch of *Fraxinus*, woodland strip on east side of Traprain Law, East Linton, VC 82, East Lothian GR 36(NT)/58-74-, January 2016, Coppins 25024 (**E**). New to southeast Scotland and sixth British record. *B.J. & A.M. Coppins*

Lichenostigma maureri - the anamorph of *Phaeosphaerobolus usneae*: on *Flavoparmelia soredians*, turning it pink in the infected areas, on sloping trunk of *Acer platanoides* (well covered with lichens), in urban street, Leigh Hall Road, Leigh-on-Sea, VC 18, South Essex, GR 51(TQ)/844.862, May 2013. Herb. P.M. Earland-Bennett. Second Essex record and third record for East Anglia for this species. *P.M. Earland-Bennett*

Lichenostigma maureri: on *Flavoparmelia soredians,* on branch of *Quercus*, at edge of golf course/nature reserve, Belfairs Park Woods, Leigh-on-Sea, VC 18, South Essex, GR 51(TQ)/832.875, June 2005. Herb. P.M. Earland-Bennett. Third Essex record for this species and all on *Flavoparmelia soredians*. *P.M. Earland-Bennett*

Lobaria amplissima: on *Quercus*, Heaven's Gate, VC 3, South Devon, GR 20(SX)/777. 803. July 2015. Determined by B. Benfield. Field Record. A new site for this declining species. *Devon Lichen Group*

Megalaria laureri: single thalli on two old *Fagus* trees, within *Fagus – Ilex – Quercus* pasture woodland, Mallard Wood & Little Stubby Hat, New Forest, VC 11, South Hampshire, GR 41(SU)/3208.0937 & 41(SU)/3059.1084, alt 25 m & 35 m respectively, February & March 2016. New sites for this very rare *Fagus* specialist. *N.A. Sanderson*

Melanelixia elegantula: on trunk of mature *Quercus* in corner of pasture, west side of A702 road, Drum, Carronbridge, VC 72, Dumfriesshire, alt 75 m, March 2016, field record. New to the Vice-county. *B.J. Coppins*

Melanohalea exasperata: on planted *Fraxinus* tree, Grafham Water, VC 31, Huntingdonshire, GR 52(TL)/162.682, February 2016. Herb. Powell 3988. New to the Vice-county. *M. Powell*

Micarea hypoviolascens: several small patches on decaying hard lignum of *Quercus* bough, wedged in river bed in Atlantic ravine oakwood, Coed Afon Dulas, c. 330 m upstream of Llwydiarth Hall, northeast of Aberllefenni, VC 48, Merionethshire, GR 23(SH)/782.104, alt c. 80 m, November 2015. Herb. SPC. Confirmed by B.J. Coppins. Second world record of this British endemic previously known only from the type locality in Argyll, west Scotland. New to Wales. *S.P. Chambers & A. Seddon*

Micarea misella: on rotting high-cut stump of conifer tree in relatively young plantation, Stanwick Lakes, VC 32, Northamptonshire, GR 42(SP)/97.71, December 2015. Herb. Powell 3917. *M. Powell*

Micarea pycnidiophora: on an old *Quercus* on the rim of a gorge, within a oceanic ravine woodland, Ceunant Cynfal, VC 48, Merionethshire, GR23(SH)/7071.4106 alt 140m, April, 2015. New to the Vice-county and north Wales.

N.A. Sanderson, A.M. Cross & D. Lamacraft

Micarea pycnidiophora: on ancient *Ilex* on low cliff, deep in gorge, Coed Felinrhyd, Ceunant Llennrych, VC 48, Merionethshire, GR 23(SH)/6564.3915, alt 20 m, April, 2015. A new species for this exceptionally rich ravine, and second record, for this species in Merionethshire. *N.A. Sanderson & A.M. Cross*

Micarea pycnidiophora: on two old *Ilex* bushes and *Betula*, with in old *Quercus petraea* – Ilex woodland, Rossacroonaloo, Kilgarvan, VC H2, North Kerry, GR 10(W)/04908.78855, 10(W)/04937.78810 & 10(W)/04990.78815, alt 80 m, September 2015. This appears to be the third record for Ireland for this lichen, potentially being over looked for *Micarea stipitata*. Any "*Micarea stipitata*" records lacking forked pycnidia should be checked for a C+ red reaction. *N.A. Sanderson*

Micarea xanthonica: on acid bark on *Quercus*, *Betula* and lignum on *Fraxinus*, within upland pasture woodland, Hafod-y-llan & Ochr Bwlch, Nant Gwynant, VC 49, Caernarvonshire, GR 23(SH)/631.515, 23(SH)/632.516 & 23(SH)/6402.5225, alt 90-200 m, November, 2015. New to the Vice-county.

N.A. Sanderson, A.M. Cross & D. Lamacraft

Minutoexcipula tephromelae: three records from VC 46, Cardiganshire on *Tephromela atra*; (i) on *c.* four thalli on siliceous block faces 1-2 m up on north wall of church, Eglwys y Santes Fair, Llanfair Clydogau, GR 22(SN)/624.513, alt 135 m, October 2015. Herb. SPC; (ii) on north wall of church, Eglwys St Non (Llanerchaeron Church), GR 22(SN)/477.604, alt 35 m, October 2015. Herb. SPC; (iii) on two block faces on north wall of church, Holy Trinity Church, Cilcennin, GR 22(SN)/520.601, alt 170 m, March 2016. Herb. SPC. 2nd & subsequent Welsh & Vice-county records for this species. *S.P. Chambers*

Mycocalicium subtile: on bare lignum on south side of standing *Picea* trunk, in clear-felled forestry area, above Cnwc y llwyn, Brechfa, VC 44, Carmarthenshire, GR 22(SN)/514.312, alt c. 140 m, March 2016. Herb. Bosanquet. Confirmed by S.P. Chambers. New to Wales. *S.D.S. Bosanquet*

Mycoporum lacteum: frequent on ancient *Ilex* on low cliff, deep in gorge, Coed Felinrhyd, Ceunant Llennrych, VC48, Merionethshire, GR 23(SH)/6564.3915, alt 20m, November, 2015. A new species for this exceptionally rich ravine and the second Welsh record for this species. *N.A. Sanderson & A. M. Cross*

Ochrolechia arborea: lignicolous on fence with *Flavoparmelia soredians*, Pamphill Green, VC 9, Dorset, GR 31(ST)/991.005 [see next page]. *J. Seawright*

Ochrolechia arborea (see entry above). Image © Jenny Seawright

Ochrolechia arborea: saxicolous on ironstone marker stone, Plateau Heath - South, VC 9, Dorset, GR 40(SZ)/025.852, April 2013. First saxicolous record for this species. *J. Seawright & V. Giavarini*

Opegrapha physciaria: on *Xanthoria parietina* on *Acer pseodoplatanus*, Sharkham Point VC 3, South Devon, GR 20(SX)/936.546. April 2016. Herb. B. Benfield and N. Bacciu. Determined by microscope. Fourth county record for this species, all coastal. *Devon Lichen Group*.

Opegrapha saxigena: on old *Fagus* within *Fagus – Ilex – Quercus* pasture woodland, Denny Wood, New Forest, VC 11, South Hampshire, GR 41(SU)/3388.0557, alt 25m, February 2016. New to the New Forest and the county. *N.A. Sanderson*

Opegrapha thelotrematis: parasitising *Thelotrema lepadinum* on old *Fagus*, within *Fagus – Ilex – Quercus* pasture woodland, Great Stubby Hat, Busketts Wood, New Forest, VC 11, South Hampshire, GR 41(SU)/3065.1120, alt. 40 m, March 2016. Second record for the New Forest and lowland England for this species. *N.A. Sanderson*

Pannaria rubiginosa: single thallus on small *Fraxinus* leaning over river, deep in gorge, Felinrhyd Fach, Ceunant Llennrych, VC 48, Merionethshire, GR 23(SH)/6561.3922, alt 20 m, November, 2015. Second recent Welsh record for a species assessed as Critically Endangered in Wales. *N.A. Sanderson & A.M. Cross*

Paranectria oropensis: on *Physcia tenella* at allotments. Kingstyon Lacy, VC 9, Dorset, GR, 31(ST)/979.006, December 2015. Herb. J. Seawright. Confirmed by B. Edwards. New to the county. *J. Seawright*

Paranectria oropensis: parasitic on *Physcia tenella*, on apple twig, Corn Close orchard, Church Lane, Riseley, VC 30, Bedfordshire, GR 52(TL)/039.630, November 2015. Herb. Powell 3908. This web-like species might be overlooked as *Athelia arachnoidea*, if not examined closely. New to the Vice-county. *M. Powell*

Parmelia ernstiae: on Quercus, Badbury Rings, VC 9, Dorset, GR 31(ST)/964.029, March 2016. Herb. J. Seawright. Confirmed by N.A. Sanderson. New to the county. *J. Seawright*

Parmelina pastillifera: two thalli bearing juvenile apothecia on upperside of bough of *Fraxinus excelsior* in sheep pasture, west of Mynydd Gorddu mine, VC 46, Cardiganshire, GR 22(SN)/666.859, alt 165 m, February 2016. Herb. SPC. Apothecial thalline margins bearing a few characteristic isidia. Seemingly the first fertile British record. *S.P. Chambers*

Pertusaria ophthalmiza: (i) on old *Quercus* within very open pasture woodland on alluvial flat, deep into the hills, Cappagh Wood, west side of Bennaunmore, VC H2, North Kerry, GR 10(W)/0305.8136, alt 160 m; (ii) on two old *Betula* within open *Betula – Corylus* pasture woodland, below Crohane Lake, Derrybanane, VC H2, North Kerry, GR 10(W)/0384.8046 & 10(W)/0385.8042, alt 240-250 m; October 2015. These appear to be the first Irish records for this species for many years. They were made within high altitude pasture woodlands in moorland grazings, a habitat which seems not to have been surveyed for lichens recently. *N.A. Sanderson*

Pertusaria pustulata: on an ancient *Fagus*, in *Quercus – Ilex* pasture woodland, Matley Wood, New Forest, VC11, South Hampshire, GR41(SU)/3328.0757, alt. 35m, April 2016. A new 10 km national grid square for this Vulnerable RDB species. Pictures at *http://wessexlichengroup.org/news/Arthonia_anglica/* *N.A. Sanderson*

Pertusaria pustulata: on bark of an old *Fagus*, on the edge of a *Fagus – Ilex – Quercus* pasture woodland, Anses Wood, New Forest, VC 11, South Hampshire, GR 41(SU)/2290.1225, alt 110 m, May 2015. A new site for this Vulnerable lichen and the first record from the 10 km national grid square since 1976. *N.A. Sanderson, Wessex Lichen Group & BBS Southern Group*

Phylloblastia fortuita: with *P. inexpectata* on leaves of *Hedera* in woodland, Marks Hill Nature Reserve, Basildon, VC 18, South Essex, GR 51(TQ/686.878. January 2016. Herb. J.F. Skinner. Confirmed by M. Powell, New to Essex. *J.F. Skinner*

Physcia tribacioides: saxicolous in churchyard, St John the Evangelist, East Holme, VC 9 Dorset GR 30(SY)/899.859, December 2015. *J. Seawright*

Placidium squamulosum: terricolous on sparse stony soil, Irchester Country Park, VC 32, Northamptonshire, GR 42(SP)/91-65-, January 2016. Herb. Powell 3962. New to the Vice-county. *M. Powell*

Polyblastia albida: on sheltered west side of slightly leaning, finely crystalline marble headstone in graveyard, Eglwys y Santes Fair, Llanfair Clydogau, VC 46,

Cardiganshire, GR 22(SN)/624.513, alt 135 m, October 2015. Herb. SPC. New to the Vice-county. *S.P. Chambers*

Polycoccum slaptoniense: parasitic on apothecia and thallus of *Xanthoria parietina*, on low *Crataegus* bush in open conditions, Stanwick Lakes, VC 32, Northamptonshire, GR 42(SP)/96-71-, December 2015. Herb. Powell 3925. New to the Vice-county. *M. Powell*

Polycoccum slaptoniense: parasitic on *Xanthoria parietina*, on apple twig, Corn Close orchard, Church Lane, Riseley, VC 30, Bedfordshire, GR 52(TL)/039.630, November 2015. Herb. Powell 3906. New to the Vice-county. *M. Powell*

Pronectria anisospora: on *Hypogymnia physodes* on branch of *Salix cinerea* in carr at edge of rhos valley-mire, between Llwyn-colfa Coed & Pyllau-duon, southwest of Tyncelyn, VC 46, Cardiganshire, GR 22(SN)/648.629, alt 200 m, April 2015. Herb. SPC. Determined by B.J. Coppins. New to Wales. *S.P. Chambers*

Pronectria oligospora: necrotrophic on senescing thalli of *Punctelia subrudecta* on branch of *Salix cinerea* on verge beside rush-pasture, Llwynhelig, c.500m SW of Cross Inn, VC 46, Cardiganshire, GR 22(SN)/384.564, alt 150 m, April 2016. Herb. SPC. Fourth British record for this species, new to Wales. *S.P. Chambers*

Psammina simplex: on *Lecanora saligna* in churchyard, St John the Evangelist, East Holme, VC, 9 Dorset, GR 30(SY)/899.859 December 2015. Herb. J. Seawright. Confirmed by P.M. Earland-Bennett. New to the county. *J. Seawright*

Psammina stipitata: causing necrotic patches on algal crust near base of planted *Prunus* sp., in churchyard, St Mary, Mepal, VC 29, Cambridgeshire, GR 52(TL)/440.810, February 2016. Herb. Powell 3999. *M. Powell and Cambridge Lichen Group*

Psammina stipitata: causing necrotic patches on algal crust on *Fraxinus* trunk, Flints Wood, Riseley, VC 30, Bedfordshire, GR 52(TL)/039.642, March 2016. Herb. Powell 4016. New to the Vice-county. *M. Powell*

Pseudocyphellaria lacerata: substantial colony with two large coalescing patches 50cm long and two smaller thalli on well lit, rich rock face, flushed by base rich water, within upland pasture woodland Hafod-y-llan, Nant Gwynant, VC 49, Caernarvonshire, GR 23(SH)/6359.5197, alt 200 m, November, 2015. The second known surviving location in Wales, with a much larger population than the other extant site. *N.A. Sanderson & D. Lamacraft*

Pseudocyphellaria norvegica: four thalli on horizontal branch of a old *Fraxinus*, within open old growth *Betula – Quercus – Fraxinus – Corylus – Ilex* pasture woodland on very steep slope, deep into the hills, Cappagh Wood, west side of Bennaunmore, VC H2, North Kerry, GR 10(W)/0309.8120, alt 210 m, October 2015. The fourth post 2000 record for Ireland for this rare species. *N.A. Sanderson*

Pyrenidium actinellum: on *Caloplaca teichophila*, on windowsill of church, St Mary, Mepal, VC 29, Cambridgeshire, GR 52(TL)/440.810, February 2016. Herb. Powell 3996. *C. teichophila* appears to be rather a frequent host for this fungus, especially on church windowsills, the immersed black perithecia being quite conspicuous in the field. *M. Powell and Cambridge Lichen Group*

Pyrenula hibernica: three thalli on *Corylus* bush deep in a ravine, at the entrance to narrow section of th gorge within the ravine, Coed Felinrhyd, Ceunant Llennrych, VC 48, Merionethshire, GR 23(SH)/6627.3908, alt 40 m, November, 2015. An extension of the only known Welsh population of this very rare lichen.

N.A. Sanderson & A.M. Cross

Pyrenula hibernica: (i) on ten *Corylus* on open fringes of *Taxus* pasture woodland, Reenadinna Wood, Muckross, VC H2, North Kerry, GR 00(V)/962.864, alt 20m; (ii) on four old *Corylus* bushes in gully, high within open ancient pasture woodland, on eastern side of Carrigawaddra, Foiladuane, GR 10(W)/076.820, alt 150- 170; (iii)on twenty two *Corylus* bushes and one *Fraxinus* within *Betula – Corylus – Ilex – Quercus* pasture woodland on steep slope above moorland lake, high in the hills, Crohane Lake, Derrybanane, VC H2, North Kerry, GR 10(W)/038.809, 10(W)/039.808, 10(W)/039.809, 10(W)/039.810 & 10(W)/038.811, alt 270-280 m; (iv) on three *Corylus* bushes within open old growth *Betula – Quercus – Fraxinus – Corylus – Ilex* pasture woodland on very steep slopes, deep into the hills, Cappagh Wood, west side of Bennaunmore, VC H2, North Kerry, GR 10(W)/030.811 & 10(W)/030.812, alt 170-210 m, September & October 2015. Four new sites for this internationally rare lichen, representing a significant increase in the number of known Irish sites. One was in an already well-known site, but the three others were in extraordinary high altitude pasture woodlands within moorland grazings, a habitat which appears not to have been surveyed for lichens recently. Cappagh Wood in particular was only briefly visited and looks to be an extremely important site. *Fraxinus excelsior* appears to be a new substrate for this lichen. *N.A. Sanderson*

Ramonia dictyospora: on damp, semi-decayed bark, c. 6ft up trunk of *Fraxinus excelsior* in secondary woodland near stream, c. 200 m north of Oxen Hall, Llanfair Clydogau, GR 22(SN)/637.506, alt 200 m, October 2015. Sample consumed in examination. Fifth Vice-county record for this species. *S.P. Chambers*

Ramonia dictyospora: on leaning trunk of old *Acer pseudoplatanus*, by riverside path, River Tweed, Paxton House, VC 81, Berwickshire, GR 36(NT)/93-51-, alt 10 m, January 2016, Coppins 25021 (E). New to the Vice-county. *B.J. Coppins*

Ramonia nigra: on lignum inside two ancient *Ilex* pollards, in *Quercus – Ilex* pasture woodland, Matley Wood, New Forest, VC 11, South Hampshire, GR 41(SU)/3347.0763, alt 30 m, April 2016. A new site for this Critically Endangered RDB and Section 41 species. See *http://wessexlichengroup.org/news/Arthonia_anglica/*

N.A. Sanderson & A.M. Cross

Rhizocarpon subgeminatum: on top of large boulder in open oak-wood, Buchan Wood, Glen Trool, VC 73, Kirkcudbrightshire, GR NX/41980217, al. 80 m, March 2016, Coppins (25029) & Douglass (E). New to southwest Scotland.

B.J. Coppins & J.R. Douglass

Rinodina biloculata: on twig of *Quercus robur*, Cherkley Wood (between Mickleham and Headley), VC 17, Surrey, GR 51(TQ)/190.543, alt 175 m, Februiary 2016. Herb. P. F. Cannon P2135. Determined by M. Powell. Confirmed by D.J. Hill. New to southeast England. *P.F. Cannon*

Schismatomma graphidioides: (i) frequent on quite acid dry bark, on young *Castanea*, with abundant *Lecanactis abietina*, also *Arthonia invadens* parasitising *Schismatomma quercicola*, *Arthonia spadicea*, *Cliostomum flavidulum*, *Graphis elegans*, *Schismatomma niveum* and *Thelotrema lepadinum*; (ii) frequent on moister acid bark on old *Ilex*, with abundant *Thelotrema lepadinum*, also *Graphis elegans*, *Loxospora elatina*, *Mycoporum lacteum* & *Pertusaria leioplaca*, Matley Wood, New Forest, VC 11, South Hampshire, GR 41(SU)/3353.0766 & GR 41(SU)/3348.0790, alt 25 m, April 2016. Third and fourth sites for this Vulnerable RDB and Section 41 species in the New Forest and the largest and strongest colonies found here to date. Both *Castanea sativa* and *Ilex aquifolium* appear to be new substrates for this lichen. More detail at *http://wessexlichengroup.org/news/Arthonia_anglica/* *A.M. Cross & N.A. Sanderson*

Schismatomma graphidioides: on trunk of mature *Acer pseudoplatanus* in copse, by picnic site, on the Afon Artro, Llanbedr, VC 48, Merionethshire, GR 23(SH)/580.269, alt 5 m, January 2016. Herb. SPC. New to the Vice-county.

S.P. Chambers & C.M. Forster-Brown

Sphaerellothecium araneosum: parasitic on thalli and apothecia of *Ochrolechia parella* on east facing wall of church, Loxhore, VC 4, North Devon, GR 21(SS)/617.387, alt 188 m, December 2015. Herb. M. Putnam. Determined by B.J. Coppins. This species found sterile and growing in close association with fertile *Dactylospora parellaria*. New to the county. *M. Putnam*

Sphaerellothecium parietinarium: on apothecia of *Xanthoria parietina*, Windmill Farm, CWT Reserve, Lizard, VC 1, West Cornwall, GR 10(SW)/6914.1560, March 2016. Herb. P.A. Gainey. Confirmed by B. Edwards. [See notes under *Endococcus (Sphaerellothecium) parietinarium,* relating to this species] *P.A. Gainey*

Sphaerellothecium parietinarium: on apothecia of *Xanthoria parietina* on marble gravestone in churchyard on top of cliffs, above Church Cove, Gunwalloe, VC1, GR 10(SW)/6601.2056, April 2016. Herb. P.A. Gainey. *P.A. Gainey*

Sphinctrina tubiformis: parasitising *Pertusaria leioplaca* growing low on trunks of two well lit old *Fagus*, on edge of *Fagus – Ilex – Quercus* pasture woodland, Great Stubby Hat, Busketts Wood, New Forest, VC 11, South Hampshire, GR 41(SU)/3077.1082 & 41(SU)/3078.1081, alt 30 m, December 2014. Second recent record for this species, for the New Forest and lowland England. *N.A. Sanderson*

Steinia geophana: with pycnidia on decaying vegetation under metal road barrier, Belton Hills, Nature Reserve, Leigh-on-Sea, VC 18, South Essex GR 51(TQ)/831.857, March 2005. Herb. P. M. Earland-Bennett. Determined by B.J. Coppins. New to the Vice-county and rare in East Anglia. *P.M. Earland-Bennett*

Stereocaulon glareosum: substantial colony, dominant over c. 3 x 4m, on gravelly mine spoil, Mynydd Gorddu mine, VC 46, Cardiganshire, GR 22(SN)/667.859, alt 170 m, February 2016. Herb. SPC. Post-1994 colonisation as neither *S. glareosum* nor the confusable *S. condensatum* has been recorded previously at this well-surveyed mine. New internal fencing erected c. 1997 may have facilitated establishment by reducing disturbance from trampling sheep. *S.P. Chambers*

Sticta ciliata: in *Quercus* forest, south of Killarney, VC H2, South Kerry, GR 00(V)/9--8--, 30 m, February. 2014. Herb. E. Sérusiaux s.n. (LG). Given by *B. J. Coppins*

***Sticta ciliata**:* abundant on *Fraxinus*, rock, *Corylus, Quercus, Acer platanoides, Acer pseudoplatanus* & *Ulmus*, oceanic pasture woodland, Hafod-y-lan, VC 49, Caernarvonshire, GR 23(SH)/63.51, 23(SH)/64.52 & 23(SH)/62.51, November 2015. New to the Vice-county. *N.A. Sanderson, A.M. Cross & D. Lamacraft*

Sticta ciliata: abundant on *Fraxinus, Salix cinerea, Corylus, Quercus, Tilia, Populus* and *Acer pseudoplatanus*, woodland and scrub invading a lightly grazed wet meadow in parkland, Dunsland Park, VC 4, North Devon, GR 21(SS)/41.05, 21/(SS)/40.05, 21(SS)/41.04 & 21(SS)/40.04, November 2015. *N.A. Sanderson*

Sticta ciliata: frequent on *Corylus, Salix cinerea, Fraxinus, Sorbus aucuparia* & *Acer pseudoplatanus*, in old woodland in oceanic ravine, found deeper into the ravine than *Sticta fuliginoides*, Ceunant Llennrych, VC 48, Merionethshire, GR 23(SH)/65.39, 23(SH)/66.38 & 23(SH)/66 39, November 2015. New to the Vice-county.
N.A. Sanderson & A.M. Cross

Sticta ciliata: on *Corylus avellana* in heavily disturbed *Corylus* coppices, Isle of Skye, VC 104, North Ebudes, GR 18(NG)/7--1--, alt 65 m, April 2015. E. Sérusiaux LG-DNA 4327 (LG). The reported locality in the hazel woods in the southern parts of Skye is not provided with great precision, as it is obviously quite rare there. Five other species of *Sticta* thrive in this locality: *S. canariensis, fuliginoides* (see under that species), *fuliginosa, limbata and sylvatica*. New to Skye. *E. Serusiaux*

Sticta ciliata: rare on *Fraxinus* and *Prunus spinosa* in upland pasture woodland, at Yeals Combe & Cloutsham Ball, in Horner Wood NNR, VC 5, South Somerset GR 21(SS)/89.44 & 21(SS)/89.439, February 2016. New to Somerset. *N.A. Sanderson*

Sticta fuliginoides: first confirmed for Britain in VC 4, North Devon, in the 10 km square GR 21(SS)/ 6--3--, between Barnstable and Exmoor in 2014. New to Devon.
N. Magain & E. Sérusiaux.

Sticta fuliginoides: frequent on *Corylus, Fraxinus* & *Salix cinerea*, in old woodland in oceanic ravine, found higher up in the ravine than *Sticta ciliata*, Ceunant Llennrych, VC48, Merionethshire, GR 23(SH)/66.38 & 23(SH)/67.38, November 2015. New to the Vice-county. *N.A. Sanderson & A. Seddon*.

Sticta fuliginoides: rare on *Fraxinus, Corylus* and rock within oceanic pasture woodland, Hafod-y-lan, VC 49, Caernarvonshire, GR 23(SH)/63.51 & 23(SH)/64.52, November 2015. New to the Vice-county.
N.A. Sanderson, A.M. Cross & D. Lamacraft

Sticta fuliginosa s. str. : rare on *Salix cinerea*, *Corylus* & *Fraxinus*, woodland and scrub invading a lightly grazed wet meadow in parkland, Dunsland Park, VC 4, North Devon, GR 21(SS)/40.04 & 21(SS)/41.04, November 2015. *N.A. Sanderson*

Sticta fuliginosa s. str. : occasional, on *Salix cinerea, Corylus, Fraxinus, Quercus* & *Sorbus aucuparia*, within old woodland in oceanic ravine, Ceunant Llennrych, VC 48, Merionethshire, GR 23(SH)/65.39, 23(SH)/66.38 & 23(SH)/66.38, November 2015.
N.A. Sanderson, A.M. Cross & A. Seddon

Sticta fuliginosa s. str.: occasional, on *Fraxinus, Ulmus* & rock, oceanic pasture woodland, Hafod-y-lan, VC 49, Caernarvonshire, GR 23(SH)/63.51, 23(SH)/64.52 & 23(SH)/62.51, November 2015. *N.A. Sanderson, A.M. Cross & D. Lamacraft.*

Sticta limbata: two patches of healthy thalli on base of ancient *Quercus*, at edge of *Fagus/Ilex/Quercus* pasture woodland, Anses Wood, VC 11, South Hampshire, GR 41(SU)/2290.1225, alt 110 m, May & December 2015. A well known location for this now very rare species in the southern lowlands, which was still present in 1996, but appeared to have disappeared in the late 2000's. A welcome reappearance, after presumably being reduced to small fragments.

N.A. Sanderson, A.M. Cross & D. Lamacraft

Stigmidium congestum: on *Lecanora chlarotera* in carpark, Stud Knoll, VC 9, Dorset, GR 40(SZ)/033.836, May 2015. Herb. J. Seawright. Confirmed by B. Edwards. New to the county. *J. Seawright & V. Giavarini*

Strigula taylorii: on *Corylus avellana* pole in stream valley woodland, Nant Melyn, southeast of Nant Moel, near Hirwaun, VC 42, Breconshire, GR 22(SN)/977.063, alt 210 m, October 2015. Herb. SPC. New to the Vice -county.

S.P. Chambers & C.M. Forster-Brown

Syzygospora physciacearum: on depauperate *Physcia* thalli, with *Paranectria oropensis* on scrappy *Crataegus*, Coddenhan Cemetery, VC 25, East Suffolk, GR 62/131.538, January 2016. Herb. Hitch (W1A-C). Third Suffolk record for this species.

C.J.B. Hitch

Syzygospora physciacearum: on *Physcia tenella* in churchyard, St John the Evangelist, East Holme, VC 9, Dorset, GR 30SY/899.859, December 2015. Herb. J. Seawright. Confirmed by B. Edwards. New to the county. *J. Seawright*

Syzygospora physciacearum: on *Physcia tenella*, Purbeck Golf Club, Godlingston Hill, VC 9, Dorset, GR 40(SZ)/014.818, February 2016. *J. Seawright*

Taeniolella phaeophysciae: parasitic on *Phaeophyscia orbicularis*, on trunk of multi-stemmed field-edge *Fraxinus*, VC 31, Huntingdonshire, GR 52(TL)/1522.6913, December 2015. Herb. Powell 3951. New to the Vice-county. *M. Powell*

Thelidium zwackhii: growing on bare clay soil amongst the rough grass sward of a field-edge footpath beside arable field, Riseley, VC 30, Bedfordshire, GR 52(TL)/037.616, December 2015. Herb. Powell 3927. Although covering extensive areas, the thin green thallus was almost overlooked as being merely an algal crust. New to the Vice-county.

M. Powell

Thelotrema petractoides: extensive thallus on old *Sorbus aucuparia*, on cliff within oceanic woodland, in ravine, Rhaeadr Ddu, Ceunant Llennrych, VC 48, Merionethshire, GR 23(SH)/6670.3888, alt 70 m, November, 2015. An extension to the only known Welsh population of this highly oceanic lichen.

N.A. Sanderson & A.M. Cross

Toninia verrucariae: on *Verrucaria baldensis*, Penn's Weare, Portland, VC 9, Dorset, GR 30(SY)/703.715, February 2016. Second record of this species for the county.

J. Seawright & V. Giavarini

Tremella pertusariae: on *Pertusaria hymenea* on large *Fraxinus* at edge of small field, New Galloway, VC 73, Kirkcudbrightshire, GR 25(NX)/628.779, alt 90 m, March 2016. Herb. Coppins 25030 (E). New to southewest Scotland. *B.J. Coppins*

Tubeufia heterodermiae (C.J.B. Hitch): For details, see under ***Lichenicolous fungi in Suffolk.***

Tubeufia heterodermiae: on *Physcia adscendens*, on branch of young *Quercus*, Knotting, VC 30, Bedfordshire, GR 52(TL)/019.625, February 2016. Herb. Powell 3982. *T. heterodermiae* is probably widespread and quite common, but previously overlooked. Discoloured, off-white patches of *P. adscendens* on semi-shaded twigs and branches should be examined for the minute, pale buff coloured hairy perithecia. New to the Vice-county. *M. Powell*

Tubeufia heterodermiae: on *Physcia adscendens*, on *Prunus spinosa* twigs, Geddington, VC 32, Northamptonshire, GR 42(SP)/90.80, February 2016. Herb. Powell 4002. New to the Vice-county. *M. Powell*

Tubeufia heterodermiae: on *Physcia tenella* Purbeck Golf Club, Godlingston Hill, VC 9 Dorset, GR 40(SZ)/014.818, February 2016. Herb. J. Seawright. Confirmed by M. Powell. New to the county. *J. Seawright*

Unguiculariopsis thallophila: on *Lecanora chlarotera*, on *Fraxinus* trunk in plantation woodland, north of Grafham Water, VC 31, Huntingdonshire, GR 52(TL)/1565.6904, December 2015. Herb. Powell 3953. This distinctive lichenicolous fungus appears to be actively and rapidly colonising the east of England. New to the Vice-county.

M. Powell

Vahliella leucophaea: frequent on single well lit rock face flushed by base rich water, Hafod-y-llan, Nant Gwynant, VC 49, Caernarvonshire, GR 23(SH)/SH6359.5197, alt 200 m, November, 2015. New site for this uncommon species in Wales.

N.A. Sanderson & D. Lamacraft

Verrucaria obfuscans: dominating a south-facing limestone church windowsill, St Laurence, Stanwick, VC 32, Northamptonshire, GR 42(SP)/980.731, December 2015. Field record. New to the Vice-county. *M. Powell*

Vouauxiomyces truncatus: on *Flavoparmelia caperata* and *Punctelia borreri*, Badbury Rings, VC 9, Dorset, GR 31(ST)//964.029, March 2016. Herb. J. Seawright. Confirmed by B. Edwards. New to the county. *J. Seawright*

Xanthoparmelia tinctina: on rock outcrop on edge of cliff, The Warren, Stoke, Hartland, VC 4, North Devon, GR 21(SS)/224.253, alt 40 m, September 2015. Herb. M. Putnam. New to the Vice- county. *M. Putnam*

Xerotrema quercicola: (i) on exposed lignum on live *Quercus petraea*, within *Quercus petraea – Ilex* pasture woodland, Looscaunagh, upper Owenreagh River, VC H1, South Kerry, GR 00(V)/8788.7980 alt 120 m; (ii)on lignum on fallen *Quercus* log in floodplain woodland, Rossacroonaloo, Kilgarvan, VC H2, North Kerry, GR 10(W)/0484.7900, alt 80 m; (iii) on lignum of fallen propped up *Taxus* branch, in open area in *Taxus* pasture woodland, Reenadinna Wood, Muckross, VC H2, North Kerry, GR 00(V)/9620.8647, alt 20 m, September 2015. First confirmed records for southwest

Ireland and from *Taxus* lignum. The record from Reenadinna Wood, was the result of a targeted search to confirm which *Xerotrema* species was present in this wood. A *Xerotrema* was collected from *Taxus* lignum by the author during the 1996 BLS Killarney meeting, and named *Xerotrema megalospora* at the time (see Giavarini, BLS Bulletin, 2012, 110: 89). The specimen was passed on at the meeting as voucher, but subsequently it has proved to be impossible to retrieve the specimen. *Xerotrema quercicola*, has now been recorded from *Quercus*, *Larix* and *Taxus* lignum, so is not an obligate species of *Quercus* lignum. *N.A. Sanderson*

Lichenicolous fungi in Suffolk: on *Physcia* thalli on small branches of *Malus* and blackthorn (*Prunus spinosa*) in old, cropped grassy, small derelict orchard, surrounded by tall blackthorn bushes and ivy climbing into odd trees, forming a protective wall around the whole area, Foxburrow Farm Reserve, Foxborough Hall, Woodbridge, part of Suffolk Wildlife Trust's holdings for outdoor education activities, VC 25 East Suffolk, GR 62(TM)/27-51-, February 2016. Herb. Hitch. These are (i) **V9** and **V10** *Tubeufia heterodermiae*; (ii) **V8** *Paranectria oropensis*; (iii) **V6** *Marchandiomyces aurantiacus*, *Illosporiopsis christiansenii* and, wait for it.... *Laetisaria lichenicola*. The last is poorly formed but it looks spot on, including 'slug trail' and I found some basidia so I am happy to confirm it; (iv) **V19** is interesting with black pycnidia on discoloured *Physcia* thalli. I imagined they would just be the remains of the conidia of the *Physcia* but they are not. They contain brown conidia ca 7 x 3 µm in size and it keys out as *Laeviomyces fallaciosus*, but it has now been determined by B.J. Coppins as *Lichenoconium lichenicola*. This is the second record for England, (previously known only from Devon), though there are 6 records from Scotland; (v) **V13** *Syzygospora physciacearum*, *Illosporiopsis christiansenii* - the blobs of the latter almost completely dissolved and the remains somewhat like *Laetisaria* but lacking the 'snail trail' and the remains still have loads of typical helicoid conidia; (vi) **V18** *Illosporiopsis christiansenii*. Determined by M. Powell. The underlined species are new for Suffolk. *C.J.B. Hitch*

Report of the BLS field meeting to Snowdonia: May 2-9 2015

Local organiser: Ray Woods with the assistance of Allan Pentecost and local staff of the National Trust and Natural Resources Wales.

Laboratory work at Plas y Brenin. Image © Steve Price

Introduction

Over a period of six days of very mixed weather the group of about thirty participants visited a range of sites mostly in the north eastern section of the Snowdonia National Park making over 1800 records of over 460 taxa. With the exception of monitoring surveys commissioned by conservation bodies of sites in which they have an interest there has been surprisingly little recording done in North Wales since Allan Pentecost completed his very important Lichen Flora of Gwynedd published in the Lichenologist in 1987 (vol. 19 p. 97-166). The Society appears to have last visited Snowdonia as long ago as 1961 when it was centred further south in Dolgellau.

The spring 2015 meeting was based in the outdoor pursuits centre of Plas y Brenin in Capel Curig. Sleeping accommodation for some was in the comfortable farm house of Bryn Engan just a short walk from the main centre beside lake margin boulders, stone walls and native woodland all dripping with lichens! Others stayed in the Centre itself, in other local accommodation, camper-vans and tents. A meeting room in the Centre was our lecture and microscope room and though a little cramped

was not too far from the bar. The Bryn Engan farmhouse was a finely located building, set amongst sessile oak woodland with breeding wood warblers, pied flycatchers and common redstart. A large oak immediately outside the farmhouse gate had a good coverage of *Sticta limbata* which was admired by many of us. Unfortunately, throughout the week the weather was not kind – the anticyclonic conditions which had brought four weeks of sunshine in April had slipped away!

Three different species of *Sticta* on a mossy trunk near Coed Bryn Engan. *S. fuliginosa* (top), *S. sylvatica* (centre) and *S. limbata* (bottom). Identifications to species aggregate only.

We were fortunate to be joined for part of the week by Allan Pentecost who also one evening gave us a fascinating account of Snowdonia's lichens. In the course of the week we were able to record lichens in some of the wettest woodlands in England and Wales and examine habitats that ranged from the arctic alpine on the summit ridges of Snowdon to the Mediterranean-like sun-baked limestone outcrops at sea level around Llandudno.

Attendees (29 in total): Nicola Bacciu, Juliet Bailey, Lesley Balfe, Ishpi Blatchey, Graham Boswell, Annelie Burghause, Paul Cannon, Pat & Keith Cavanagh, Heather Colls, Ginnie Copsey, John Douglass, Jenny Ford, Shirley Hancock, David Gavin Hill, Les & Sue Knight, Dave Lammercraft, Tracey Lovering, Oliver Moore, Ivan Pedley, Allan Pentecost, Steve Price, Matt Prince, Maxine Putnam, Ken Sandell, Catherine Tregaskes, Debbie Wallace, Pat Wolseley, Ray Woods.

3rd May 2015 Coed Bryn Engan

Our farmhouse base was surrounded on three sides by mature sessile oak woodland with birch as a frequent component and the occasional large hazel stool, rowan and grey willow. Receiving over a 1000mm of rain per year, it was the perfect introduction to the Celtic rainforest of Wales. In the morning a large group explored the woodland to the east of the farmhouse and westwards after lunch. The Parmelion laevigatae was much in evidence. Many of the large mature oak trees were liberally clad in *Sphaerophorus globosus* and interspersed with numerous birch trees yielding fine examples of *Mycoblastus sanguinarius* and *Hypotrachyna taylorensis,* testifying to the acidifying influence of the copious rain. Just the occasional tree sported a rather species-poor transition to the Lobarion with, for example, *Parmeliella triptophylla*. The more base-rich willows and sycamore held small colonies of *Sticta limbata* and *S. fuliginosa*. Siliceous rock outcrops, willow carr and bog were also present. *Mycoglaena myricae* was an unassuming and under-recorded lichen found on bog myrtle. Ginnie was lucky to find fruiting *Lichenomphalia umbellifera* amongst sphagnum. Over 170 taxa were recorded.

Sphaerophorus globosus at Coed Bryn Engan

4th May 2015 Mwynylaudd Cyffty disused mine at Tynymynydd and Cors Bodgynydd

Weather-wise this was the sunniest day of the meeting – only about 30 drops of rain fell late afternoon! The morning started at Mwynylaudd Cyffty, a disused lead and zinc mine on the edge of the Gwydyr. Lichenologists quickly spreading themselves across

Studying the disused mine buildings at at Mwynylaudd. Image © Steve Price

the numerous derelict buildings, spoil heaps, and heavy-metal contaminated heath. A good range of metallophyte lichens were eagerly inspected on the spoil heaps including the vivid terracotta coloured *Acarospora sinopica* and *Rhizocarpon oederi*. Though it took a bit of time an example of *Lecanora handelii* was found to compare to the more common *Lecanora soralifera*. The vivid yellow/green *L. epanora* was found on an iron-rich rock exposure, whilst the spoil tips eventually yielded a total of seven *Stereocaulon* taxa. In all 90 taxa were recorded.

We all moved to the nearby North Wales Wildlife Trust site of Cors Bodgynydd at lunchtime. More mine waste was present here but also trees, pools and rock outcrops. Many people had a good time trying to locate an example of *Rhizocarpon lecanorinum* and one of the authors was pleased to find their first Vezdaea – *Vezdaea rheocarpa* on decaying bryophytes. The diversity of habitats resulted in a useful 110 taxa being added to the reserve inventory.

5th May 2015 Snowdon and the Upper Nant Gwynant Valley

Very poor weather was encountered until lunchtime. One group led by Allan Pentecost headed to the flanks of Snowdon in search of base rich boulders, another group led by Ray Woods trailed into the Nant Gwynant Valley. Strong winds and rain in the morning gave way to a sunnier afternoon but the gusty conditions on Snowdon meant staying upright, let alone collecting rock samples, was somewhat difficult!

The north-east-facing slopes of the Nant Gwynant valley, with its outcrops of basic volcanic rock supports a fine ashwood, though many of the ash trees low on the

slope were remarkably devoid of leafy lichens. Members of the *Lobarion* community were present on mossy, base rich, pyroclastic boulders including *Lobaria virens*, *Sticta fuliginosa* and *Sticta sylvatica*. Climbing up the steep valley side, *Pannaria conoplea* and *Pachyphiale carneola* were found on hazel and alder supported *Parmelinopsis horrescens*.

The green algal morph of *Sticta canariensis* in the Nant Gwynant valley. Image © Ray Woods

A small party pushed north-east up the valley above the lake into Y Wenallt. Enormous stone blocks, some the size of Ford Transit vans supported extensive colonies of *Sticta sylvatica.* Oliver Moore climbing high up the slopes towards the top of the wood made one of the most exciting discoveries of the week. Towards the bottom of a basic cliff, partly shaded by trees he found seven colonies of the green algal morph of *Sticta canariensis*, four colonies of which appeared to consist entirely of the green algal morph-only the second recently known site in Wales. *Degelia atlantica* occurred nearby on rock and on an ash trunk with *S. sylvatica, S. limbata* and *S. fuliginosa* and the cliffs above were swathed in *Leptogium* species.

Another group hopeful of avoiding the poor weather at the coast viewed rocks around Porthmadog encountering both *Lichina* species and *Dermatocarpon miniatum*

6th May 2015 Nant Gwynant Valley and Gwaith Powdwr, Penrhyndeudraeth.

A short day in the field for many as the rain was persistent and horizontal. Returning to the Nant Gwynant valley we surveyed National Trust land to the north west of the

It rained on our party - a wet day in Nant Gwynant... Image © Steve Price

lake. A lucky number of us clambered up a wet slope to see where *Pseudocyphellaria lacerata* grew on a mossy boulder. Returning to the valley floor was far more precarious than the ascent. A search to refind *P. intricata* further south west proved fruitless.

People also visited Gwaith Powdwr, a decommissioned explosive works and Wildlife Trust site at Penrhyndeudraeth set amongst wooded outcrops. Unfortunately, the saturated rocks were nigh on impossible to survey.

7th May 2015 Various localities on and about Snowdon

A few of us had a relaxed walk along the miner's track to Llyn Llydaw on Snowdon, others ventured Grade 1 scrambles up scree slopes. Luckily the rain held off until just after lunch and one author was able to locate *Pilophorus strumaticus* low on a vertical boulder surface without getting too damp. At intervals whilst walking, disconcerting screams could be heard – only later did we realise these came from inexperienced walkers attempting to traverse the infamous Crib Goch arête above. Other parties returned to the upper Gwynant Valley but this time to the north-west facing slopes. The block screes on the flanks of Braich Llwyd proved acidic and rather disappointing. Ray Woods and Dave Lammercraft returned to the north-east facing slopes of the Nant Gwynant Valley and continued the survey further up the valley through the ashwood of Y Wenallt and examined basic cliffs around the woodland edge. They were rewarded with the discovery of a previously unknown population of *Pseudocyphellaria lacerata* and further populations of *Lobaria virens* on rock.

8th May 2015 Ffynnon Lloer, the Little Orme and Bryn Pydew
A group of lichenologists visited Bryn Pydew, a limestone pavement reserve of the North Wales Wildlife Trust and the nearby limestone outcrop of the Little Orme SSSI. Numerous *Collemas*, *Leptogiums* and *Caloplacas* kept people occupied on the limestone until the rain started and a few took refuge under huge yellow umbrellas in Bodnant Gardens.

Ahead of the predicted deluge a small party headed to a very special lake called Ffynnon Lloer – home to a rare British lichen; *Lecanora achariana*. This lichen closely resembles *Lecanora muralis* with which it grows on boulders situated in, and surrounded by, the shallow waters of the lake margin. Healthy rosettes of *L. achariana* were easily seen. Lichens present on the drier rocks surrounding the lake consisted of many typical upland species including beautiful examples of *Ophioparma ventosa*, and *Umbilicaria torrefacta* and *Umbilicaria polyphylla*.

A very small party was yet again drawn back to Nant Gwynant to the north-west facing slopes south of the Afon Feigam in what might be the wettest woodland in Wales. A greater diversity of lichens was found including on ash *Nephroma laevigata, Pannaria conoplea, Parmeliella testacea* and three species of *Sticta*. As befits the high rainfall *Bunodophoron melanocarpum* occurred on birch.

Finally the rain stopped… Llynnau Mymbyr, next to Plas y Brenin. Image © Steve Price

	Borth y Gest	Bryn Pydew NR SSSI	Cae'n y Coed Forest Park	Capel Curig, Coed Bryn Engan	Carneddau - Cwn Lloer etc.	Cors Bodgynydd NR	Little Orme	Llugwy Valley - Cae Awr	Nant Gwynant/Afon Fiengam	Penrhyndeudraeth - Gwaith Powdwr NR	Snowdon	Tynymynydd – Mwynylaudd	Other sites
Abrothallus bertianus				•									
Abrothallus parmeliarum				•									
Acarospora fuscata	•						•		•			•	
Acarospora impressula	•												
Acarospora nitrophila											•		
Acarospora sinopica						•						•	
Acrocordia conoidea		•											
Acrocordia gemmata	•								•				
Agonimia tristicula		•							•				
Amandinea punctata				•		•				•			
Amygdalaria pelobotryon											•		
Anaptychia runcinata	•								•				
Anisomeridium biforme			•						•				
Anisomeridium ranunculosporum									•				
Arthonia cinnabarina	•		•	•					•				
Arthonia didyma	•												
Arthonia elegans			•	•					•				
Arthonia ilicina									•				
Arthonia radiata	•	•		•		•			•	•			
Arthonia spadicea		•		•					•				
Arthonia vinosa			•	•									
Arthopyrenia analepta	•	•		•		•			•	•			
Arthopyrenia cinereopruinosa				•									
Arthorhaphis citrinella				•					•		•		
Arthothelium ruanum									•				
Aspicilia caesiocinerea			•	•	•				•		•		
Aspicilia calcarea		•					•		•				
Aspicilia cinerea s. lat.				•		•						•	
Aspicilia contorta subsp. *contorta*			•				•						
Aspicilia laevata				•		•			•				

	Borth y Gest	Bryn Pydew NR SSSI	Cae'n y Coed Forest Park	Capel Curig, Coed Bryn Engan	Carneddau - Cwn Lloer etc.	Cors Bodgynydd NR	Little Orme	Llugwy Valley - Cae Awr	Nant Gwynant/Afon Fiengam	Penrhyndeudraeth - Gwaith Powdwr NR	Snowdon	Tynymynydd – Mwynylaudd	Other sites
Bacidia inundata									•				
Bacidia laurocerasi			•										
Bacidia viridifarinosa									•				
Baeomyces rufus				•		•		•	•		•	•	
Bilimbia sabuletorum									•			•	
Bryoria subcana				•									
Buellia aethalea	•			•		•			•	•		•	
Buellia griseovirens									•			•	
Buellia ocellata									•			•	
Bunodophoron melanocarpum				•					•				
Caloplaca arcis	•												
Caloplaca aurantia		•					•						
Caloplaca cerinella				•									
Caloplaca chrysodeta							•		•				
Caloplaca cirrochroa		•					•						
Caloplaca citrina s. lat.				•			•					•	
Caloplaca crenularia	•								•				
Caloplaca crenulatella	•										•		
Caloplaca decipiens							•						
Caloplaca dichroa							•						
Caloplaca flavescens	•	•					•						
Caloplaca flavocitrina	•									•	•	•	
Caloplaca flavovirescens	•	•											
Caloplaca holocarpa s. str.	•				•								
Caloplaca limonia	•									•			
Caloplaca marina	•						•						
Caloplaca marmorata							•						
Caloplaca microthallina	•												
Caloplaca oasis	•											•	
Caloplaca saxicola							•						
Caloplaca thallincola	•						•						
Caloplaca xantholyta									•				

	Borth y Gest	Bryn Pydew NR SSSI	Cae'n y Coed Forest Park	Capel Curig, Coed Bryn Engan	Carneddau - Cwn Lloer etc.	Cors Bodgynydd NR	Little Orme	Llugwy Valley - Cae Awr	Nant Gwynant/Afon Fiengam	Penrhyndeudraeth - Gwaith Powdwr NR	Snowdon	Tynymynydd – Mwynylaudd	Other sites
Calvitimela aglaea									•				
Candelariella aurella f. *aurella*	•											•	
Candelariella coralliza					•				•				
Candelariella medians f. *medians*							•						
Candelariella reflexa		•				•			•			•	
Candelariella vitellina f. *vitellina*	•								•			•	
Catillaria atomarioides												•	
Catillaria chalybeia var. *chalybeia*												•	
Cecidonia umbonella											•		
Cetraria aculeata									•		•		
Cetraria muricata									•				
Cetrelia olivetorum s. lat.				•				•	•				
Cladonia arbuscula subsp. *squarrosa*					•								
Cladonia bellidiflora									•				
Cladonia caespiticia								•	•				
Cladonia chlorophaea s. lat.	•			•				•	•			•	
Cladonia ciliata var. *tenuis*				•	•	•			•			•	
Cladonia coccifera s. lat.				•					•		•	•	
Cladonia coniocraea				•		•			•	•			
Cladonia diversa								•				•	
Cladonia fimbriata				•		•			•			•	
Cladonia floerkeana				•		•			•			•	
Cladonia furcata subsp. *furcata*	•			•		•	•	•	•		•	•	•
Cladonia gracilis								•				•	
Cladonia luteoalba									•				
Cladonia macilenta				•		•			•				
Cladonia ochrochlora									•				
Cladonia parasitica				•									
Cladonia pocillum		•					•					•	
Cladonia polydactyla var. *polydactyla*				•				•	•			•	

	Borth y Gest	Bryn Pydew NR SSSI	Cae'n y Coed Forest Park	Capel Curig, Coed Bryn Engan	Carneddau - Cwn Lloer etc.	Cors Bodgynydd NR	Little Orme	Llugwy Valley - Cae Awr	Nant Gwynant/Afon Fiengam	Penrhyndeudraeth - Gwaith Powdwr NR	Snowdon	Tynymynydd – Mwynylaudd	Other sites
Cladonia portentosa				•	•	•			•			•	
Cladonia pyxidata	•			•	•			•	•		•	•	
Cladonia ramulosa				•					•			•	
Cladonia rangiferina					•								
Cladonia rangiformis												•	
Cladonia scabriuscula									•				
Cladonia squamosa s. lat.			•	•									
Cladonia squamosa var. *squamosa*				•				•					
Cladonia squamosa var. *subsquamosa*											•		
Cladonia strepsilis						•							
Cladonia subcervicornis				•	•	•			•		•	•	
Cladonia subulata				•				•	•			•	
Cladonia uncialis subsp. *biuncialis*					•	•			•		•		•
Cladonia uncialis subsp. *uncialis*						•							
Clauzadea metzleri							•						
Clauzadea monticola		•		•								•	
Clauzadeana macula									•				
Coccotrema citrinescens											•		
Collema auriforme	•	•					•		•				
Collema crispum var. *crispum*							•		•				
Collema cristatum var. *cristatum*							•					•	
Collema flaccidum									•				
Collema furfuraceum									•				
Collema fuscovirens		•											
Collema polycarpon							•						
Collema subflaccidum									•				
Collema tenax var. *tenax*	•												
Collema tenax var. *vulgare*							•						
Collemopsidium halodytes	•												
Cornicularia normoerica					•								

	Borth y Gest	Bryn Pydew NR SSSI	Cae'n y Coed Forest Park	Capel Curig, Coed Bryn Engan	Carneddau - Cwn Lloer etc.	Cors Bodgynydd NR	Little Orme	Llugwy Valley - Cae Awr	Nant Gwynant/Afon Fiengam	Penrhyndeudraeth - Gwaith Powdwr NR	Snowdon	Tynymynydd – Mwynylaudd	Other sites
Cystocoleus ebeneus				•									
Degelia atlantica									•				
Degelia plumbea s. str.								•					
Dermatocarpon leptophyllodes					•				•				
Dermatocarpon luridum					•				•				
Dermatocarpon miniatum	•								•				
Dibaeis baeomyces						•			•		•	•	
Dimerella lutea				•		•			•				
Dimerella pineti				•		•			•				
Diploicia canescens							•		•				
Diploschistes scruposus	•			•		•			•		•		
Diplotomma alboatrum							•						
Dirina massiliensis f. *sorediata*									•				
Endococcus propinquus					•						•		
Endococcus verrucisporus					•								
Enterographa crassa									•				
Enterographa zonata									•				
Ephebe lanata					•								
Epilichen scabrosus												•	
Evernia prunastri	•	•	•	•		•		•	•	•		•	•
Flavoparmelia caperata	•			•		•		•	•	•		•	
Fuscidea cyathoides var. *cyathoides*				•	•	•			•			•	
Fuscidea gothoburgensis				•									
Fuscidea intercincta					•								
Fuscidea kochiana					•						•		
Fuscidea lightfootii		•		•		•			•	•		•	
Fuscidea lygaea				•	•	•			•		•	•	
Fuscopannaria mediterranea									•				
Graphis elegans				•		•			•				
Graphis scripta	•		•	•		•		•	•	•			
Gyalecta derivata									•				

	Borth y Gest	Bryn Pydew NR SSSI	Cae'n y Coed Forest Park	Capel Curig, Coed Bryn Engan	Carneddau - Cwn Lloer etc.	Cors Bodgynydd NR	Little Orme	Llugwy Valley - Cae Awr	Nant Gwynant/Afon Fiengam	Penrhyndeudraeth - Gwaith Powdwr NR	Snowdon	Tynymynydd – Mwynylaudd	Other sites
Gyalecta jenensis var. *jenensis*		•											
Gyalecta truncigena									•				
Haematomma ochroleucum var. *ochroleucum*									•				
Haematomma ochroleucum var. *porphyrium*									•		•		
Herteliana gagei				•					•				
Homostegia piggotii									•				
Hyperphyscia adglutinata									•				
Hypogymnia physodes			•	•		•		•	•	•		•	•
Hypogymnia tubulosa			•	•		•		•	•	•			•
Hypotrachyna afrorevoluta	•			•		•			•	•		•	
Hypotrachyna laevigata	•			•		•			•				
Hypotrachyna revoluta s. str.	•	•	•	•		•			•	•	•		
Hypotrachyna taylorensis				•				•	•				
Illosporium carneum												•	
Immersaria athroocarpa											•		
Ionaspis lacustris					•	•			•		•	•	
Kalaallia reactiva					•								
Lasallia pustulata					•				•				
Lecanactis abietina				•									
Lecanactis dilleniana				•					•				
Lecania cyrtella				•		•							
Lecania erysibe s. lat.												•	
Lecania naegelii				•									
Lecanora achariana					•								
Lecanora actophila	•												
Lecanora albescens	•						•			•		•	
Lecanora campestris subsp. *campestris*	•			•									
Lecanora carpinea						•							
Lecanora chlarotera	•	•	•	•		•		•	•	•		•	•
Lecanora compallens				•									

	Borth y Gest	Bryn Pydew NR SSSI	Cae'n y Coed Forest Park	Capel Curig, Coed Bryn Engan	Carneddau - Cwn Llŷer etc.	Cors Bodgynydd NR	Little Orme	Llugwy Valley - Cae Awr	Nant Gwynant/Afon Fiengam	Penrhyndeudraeth - Gwaith Powdwr NR	Snowdon	Tynymynydd – Mwynylaudd	Other sites
Lecanora confusa	•												
Lecanora crenulata							•						
Lecanora dispersa	•			•			•			•	•	•	
Lecanora epanora						•						•	
Lecanora expallens	•		•	•		•			•				
Lecanora gangaleoides	•			•		•		•	•		•	•	
Lecanora hagenii						•							
Lecanora handelii												•	
Lecanora helicopis	•												
Lecanora intricata					•	•			•		•	•	
Lecanora intumescens												•	
Lecanora jamesii				•		•		•	•	•			
Lecanora muralis					•								
Lecanora orosthea				•						•			
Lecanora persimilis				•									
Lecanora polytropa	•			•	•	•			•		•	•	
Lecanora pulicaris				•					•			•	
Lecanora rupicola var. *rupicola*	•												
Lecanora soralifera						•			•		•	•	
Lecanora sulphurea									•				
Lecanora symmicta										•			
Lecidea confluens											•		
Lecidea fuscoatra s. str.									•				
Lecidea grisella	•								•				
Lecidea lactea s. lat.												•	
Lecidea lactea s. str.												•	
Lecidea lithophila				•					•		•		
Lecidea phaeops					•						•		
Lecidea sanguineoatra				•									
Lecidea swartzioidea											•		
Lecidella asema				•									

	Borth y Gest	Bryn Pydew NR SSSI	Cae'n y Coed Forest Park	Capel Curig, Coed Bryn Engan	Carneddau - Cwn Lloer etc.	Cors Bodgynydd NR	Little Orme	Llugwy Valley - Cae Awr	Nant Gwynant/Afon Fiengam	Penrhyndeudraeth - Gwaith Powdwr NR	Snowdon	Tynymynydd – Mwynylaudd	Other sites
Lecidella elaeochroma f. *elaeochroma*	•	•	•	•		•			•	•			•
Lecidella elaeochroma f. *soralifera*	•								•				
Lecidella scabra	•			•					•			•	
Lecidella stigmatea	•	•		•			•					•	
Lecidoma demissum											•		
Lempholemma sp.		•											
Lepraria caesioalba						•			•		•		
Lepraria ecorticata				•					•				
Lepraria incana s. lat.		•	•	•		•		•	•				
Lepraria incana s. str.	•								•				
Lepraria lobificans	•		•	•		•		•	•	•	•	•	
Lepraria membranacea				•					•		•		
Lepraria nivalis									•				
Lepraria vouauxii									•				
Leprocaulon microscopicum									•				
Leptogium britannicum									•				
Leptogium burgessii									•				
Leptogium cyanescens									•				
Leptogium gelatinosum												•	
Leptogium lichenoides							•		•				
Leptogium palmatum											•		
Leptogium plicatile		•							•				
Leptogium pulvinatum		•							•				
Leptogium teretiusculum											•		
Lichenomphalia umbellifera				•									
Lichina confinis	•												
Lichina pygmaea	•												
Lithographa tesserata											•		
Llimonaea sorediata									•				
Lobaria amplissima								•					
Lobaria pulmonaria								•					•

	Borth y Gest	Bryn Pydew NR SSSI	Cae'n y Coed Forest Park	Capel Curig, Coed Bryn Engan	Carneddau - Cwn Llŵer etc.	Cors Bodgynydd NR	Little Orme	Llugwy Valley - Cae Awr	Nant Gwynant/Afon Fiengam	Penrhyndeudraeth - Gwaith Powdwr NR	Snowdon	Tynymynydd – Mwynylaudd	Other sites
Lobaria virens									•				
Loxospora elatina				•									
Megalaria pulverea				•		•			•				
Melanelixia fuliginosa	•								•			•	
Melanelixia glabratula			•	•		•		•	•	•		•	
Melanelixia subaurifera	•		•	•		•				•		•	
Melanohalea exasperata		•				•							
Micarea adnata				•									
Micarea alabastrites				•									
Micarea botryoides				•									
Micarea cinerea f. *cinerea*				•									
Micarea leprosula					•						•		
Micarea lignaria var. *endoleuca*				•									
Micarea lignaria var. *lignaria*				•		•		•	•			•	
Micarea lutulata				•									
Micarea prasina s. lat.				•					•				
Micarea subnigrata						•						•	
Miriquidica leucophaea						•							
Miriquidica pycnocarpa ipycnocarpa											•		
Muellerella pygmaea											•		
Mycobilimbia epixanthoides				•									
Mycobilimbia pilularis									•				
Mycoblastus caesius				•									
Mycoblastus sanguinarius f. *sanguinarius*				•									
Mycoglaena myricae				•		•							
Mycoporum antecellens				•									
Myriospora smaragdula						•						•	
Nephroma laevigatum			•					•	•				
Nephroma parile									•				
Nephroma tangeriense									•				
Normandina pulchella	•		•	•		•		•	•	•			

	Borth y Gest	Bryn Pydew NR SSSI	Cae'n y Coed Forest Park	Capel Curig, Coed Bryn Engan	Carneddau - Cwn Lloer etc.	Cors Bodgynydd NR	Little Orme	Llugwy Valley - Cae Awr	Nant Gwynant/Afon Fiengam	Penrhyndeudraeth - Gwaith Powdwr NR	Snowdon	Tynymynydd – Mwynylaudd	Other sites
Ochrolechia androgyna			•	•		•		•	•		•	•	
Ochrolechia microstictoides						•						•	
Ochrolechia parella	•				•			•	•		•		
Ochrolechia tartarea				•					•				
Opegrapha atra	•			•					•	•			
Opegrapha calcarea									•				
Opegrapha gyrocarpa				•	•	•		•	•		•		
Opegrapha niveoatra										•			
Opegrapha pertusariicola									•				
Opegrapha saxigena				•					•		•		
Opegrapha sorediifera											•		
Opegrapha thelotrematis				•									
Opegrapha varia									•				
Opegrapha vulgata	•								•				
Opegrapha zonata				•				•	•		•		
Ophioparma ventosa					•				•				
Pachyphiale carneola									•				
Pannaria conoplea									•				
Parmelia omphalodes				•	•	•		•	•			•	•
Parmelia saxatilis	•			•	•	•		•	•	•	•	•	
Parmelia sulcata	•	•	•	•		•			•	•		•	•
Parmeliella parvula				•				•	•				
Parmeliella testacea									•				
Parmeliella triptophylla				•					•				
Parmelina pastillifera									•				
Parmelinopsis horrescens									•				
Parmotrema crinitum								•	•				
Parmotrema perlatum	•			•		•			•	•			
Peltigera didactyla												•	
Peltigera horizontalis									•				
Peltigera hymenina	•			•		•		•	•	•	•	•	
Peltigera membranacea			•	•				•	•		•	•	

	Borth y Gest	Bryn Pydew NR SSSI	Cae'n y Coed Forest Park	Capel Curig, Coed Bryn Engan	Carneddau - Cwn Lloer etc.	Cors Bodgynydd NR	Little Orme	Llugwy Valley - Cae Awr	Nant Gwynant/Afon Fiengam	Penrhyndeudraeth - Gwaith Powdwr NR	Snowdon	Tynymynydd – Mwynylaudd	Other sites
Peltigera praetextata								•	•				
Peltigera rufescens							•						
Pertusaria albescens var. *albescens*	•		•	•				•	•				
Pertusaria albescens var. *corallina*				•									
Pertusaria amara f. *amara*	•			•		•			•				
Pertusaria aspergilla	•			•		•			•				
Pertusaria corallina				•	•	•		•	•		•		•
Pertusaria excludens									•				
Pertusaria flavicans									•		•		
Pertusaria hymenea	•		•	•				•	•	•			
Pertusaria lactea									•		•		
Pertusaria leioplaca	•		•	•				•	•	•			
Pertusaria multipuncta			•	•		•						•	
Pertusaria pertusa			•	•				•	•	•			
Pertusaria pseudocorallina	•					•			•		•	•	
Petractis clausa		•											
Phaeographis dendritica			•										
Phaeographis inusta									•				
Phaeographis smithii						•			•			•	
Phaeophyscia nigricans							•						
Phaeophyscia orbicularis	•	•										•	
Phlyctis argena	•	•	•	•		•		•	•	•			
Physcia adscendens	•						•		•				
Physcia aipolia	•		•	•		•			•	•			
Physcia caesia						•							
Physcia stellaris		•											
Physcia tenella		•		•		•	•		•			•	•
Pilophorus strumaticus									•				
Placidium squamulosum							•						
Placopsis gelida											•		
Placopsis lambii						•			•			•	

	Borth y Gest	Bryn Pydew NR SSSI	Cae'n y Coed Forest Park	Capel Curig, Coed Bryn Engan	Carneddau - Cwn Llŷer etc.	Cors Bodgynydd NR	Little Orme	Llugwy Valley - Cae Awr	Nant Gwynant/Afon Fiengam	Penrhyndeudraeth - Gwaith Powdwr NR	Snowdon	Tynymynydd – Mwynylaudd	Other sites
Placopsis sp.											•		
Placynthiella icmalea								•	•			•	
Placynthiella uliginosa												•	
Placynthium nigrum		•					•						
Platismatia glauca			•	•		•		•	•			•	
Polycoccum sp.											•		
Polysporina simplex	•												
Porina aenea	•			•									
Porina borreri									•				
Porina chlorotica f. *chlorotica*				•		•							
Porina guentheri var. *guentheri*											•		
Porina guentheri var. *lucens*					•								
Porina lectissima						•			•				
Porina leptalea									•				
Porpidia cinereoatra				•		•		•	•		•	•	
Porpidia crustulata				•		•			•	•			
Porpidia flavocruenta					•						•		
Porpidia macrocarpa f. *macrocarpa*			•	•		•			•		•	•	
Porpidia melinodes									•		•		
Porpidia rugosa											•		
Porpidia soredizodes												•	
Porpidia striata											•		
Porpidia tuberculosa	•			•		•		•	•	•	•	•	
Protoblastenia calva		•					•						
Protoblastenia incrustans		•											
Protoblastenia rupestris	•	•					•			•		•	
Protoparmelia badia									•				
Pseudephebe pubescens					•								
Pseudevernia furfuracea s. lat.				•									
Pseudocyphellaria lacerata									•				
Psilolechia lucida	•			•				•	•	•			

	Borth y Gest	Bryn Pydew NR SSSI	Cae'n y Coed Forest Park	Capel Curig, Coed Bryn Engan	Carneddau - Cwn Lloer etc.	Cors Bodgynydd NR	Little Orme	Llugwy Valley - Cae Awr	Nant Gwynant/Afon Fiengam	Penrhyndeudraeth - Gwaith Powdwr NR	Snowdon	Tynymynydd – Mwynylaudd	Other sites
Punctelia reddenda				•		•							
Punctelia subrudecta s. str.				•		•			•				
Pyrenula chlorospila				•					•				
Pyrenula macrospora									•				
Racodium rupestre				•									
Ramalina farinacea	•		•	•		•		•		•			•
Ramalina fastigiata										•			
Ramalina siliquosa	•												
Rhizocarpon amphibium					•								
Rhizocarpon anaperum											•		
Rhizocarpon geographicum	•			•	•	•		•	•	•	•	•	•
Rhizocarpon georaphicum subsp. *vulgare*											•		
Rhizocarpon hochstetteri											•		
Rhizocarpon infernulum f. *sylvaticum*				•									
Rhizocarpon jemtlandicum											•		
Rhizocarpon lavatum				•					•		•		
Rhizocarpon lecanorinum						•						•	
Rhizocarpon lindsayanum											•		
Rhizocarpon oederi									•			•	
Rhizocarpon petraeum												•	
Rhizocarpon reductum	•		•	•		•			•		•	•	
Rhizocarpon richardii	•												
Rinodina efflorescens						•							
Rinodina oleae	•											•	
Rinodina parasitica				•									
Rinodina sophodes		•											
Romjularia lurida		•											
Sarcogyne regularis	•						•		•			•	
Schismatomma quercicola				•									
Schismatomma umbrinum				•									
Sclerococcum sphaerale				•	•	•			•		•		

	Borth y Gest	Bryn Pydew NR SSSI	Cae'n y Coed Forest Park	Capel Curig, Coed Bryn Engan	Carneddau - Cwn Llŵer etc.	Cors Bodgynydd NR	Little Orme	Llugwy Valley - Cae Awr	Nant Gwynant/Afon Fiengam	Penrhyndeudraeth - Gwaith Powdwr NR	Snowdon	Tynymynydd – Mwynylaudd	Other sites
Scoliciosporum umbrinum											•	•	
Sphaerophorus fragilis									•		•		
Sphaerophorus globosus				•				•	•				
Squamarina cartilaginea		•											
Stenocybe pullatula									•				
Stereocaulon dactylophyllum var. *dactylophyllum*											•	•	
Stereocaulon evolutum						•			•		•	•	
Stereocaulon leucophaeopsis											•	•	
Stereocaulon nanodes												•	
Stereocaulon pileatum						•						•	
Stereocaulon vesuvianum var. *nodulosum*					•	•			•		•	•	
Stereocaulon vesuvianum var. *vesuvianum*				•		•			•		•	•	
Sticta canariensis									•				
Sticta canariensis (dufourii)									•				
Sticta fuliginosa				•				•	•				
Sticta limbata				•				•	•				
Sticta sylvatica									•				
Stigmidium microspilum									•				
Tephromela atra var. *atra*	•				•						•		
Thelotrema lepadinum			•	•					•				
Thrombium epigaeum												•	
Toninia aromatica							•						
Toninia sedifolia		•					•						
Trapelia coarctata			•	•	•				•		•	•	
Trapelia corticola				•									
Trapelia glebulosa				•		•			•		•		
Trapelia obtegens						•							
Trapelia placodioides				•		•			•		•	•	
Trapeliopsis flexuosa				•				•	•			•	
Trapeliopsis gelatinosa					•								

	Borth y Gest	Bryn Pydew NR SSSI	Cae'n y Coed Forest Park	Capel Curig, Coed Bryn Engan	Carneddau - Cwn Llŷer etc.	Cors Bodgynydd NR	Little Orme	Llugwy Valley - Cae Awr	Nant Gwynant/Afon Fiengam	Penrhyndeudraeth - Gwaith Powdwr NR	Snowdon	Tynymynydd – Mwynylaudd	Other sites
Trapeliopsis granulosa				•		•							
Trapeliopsis pseudogranulosa			•	•		•			•				
Tremolecia atrata					•	•			•		•	•	
Tylothallia biformigera									•				
Umbilicaria cylindrica					•						•		
Umbilicaria deusta					•								
Umbilicaria polyphylla					•	•			•			•	
Usnea cornuta				•									
Usnea flammea				•				•					
Usnea florida			•	•									
Usnea subfloridana			•	•		•		•	•	•		•	•
Usnea wasmuthii				•		•						•	
Varicellaria lactea				•					•		•		
Verrucaria baldensis		•					•						
Verrucaria dolosa				•									
Verrucaria fusconigrescens											•	•	
Verrucaria halizoa	•												
Verrucaria hochstetteri		•											
Verrucaria muralis	•								•				
Verrucaria nigrescens f. *nigrescens*		•							•				
Verrucaria nigrescens f. *tectorum*	•												
Vezdaea rheocarpa						•							
Violella fucata				•		•							
Xanthoparmelia conspersa	•			•	•				•	•		•	
Xanthoparmelia mougeotii												•	
Xanthoparmelia verruculifera	•												
Xanthoria parietina	•	•		•		•			•	•		•	
Xanthoria ucrainica									•				

The sites in the table of taxa have been aggregated. All the records have been applied to the database for each site separately and at a resolution of at least 1km square.

List of sites visited and 1km grid squares:

Borth y Gest	SH5637
Bryn Pydew Nature Reserve SSSI	SH8179
Cae'n y Coed Forest Park – car park	SH764575
Capel Curig - Coed Bryn Engan, east	SH7257
Capel Curig - Coed Bryn Engan, west	SH7157
Carneddau - Cwn Lloer, Ffynnon Lloer	SH6662
Carneddau - Cwn Lloer, Afon Lloer	SH6661
Ogwen - Tal y Llyn Ogwen	SH 6660
Cors Bodgynydd Nature Reserve	SH7659
Little Orme	SH8182
Llugwy Valley - Cae Awr	SH7457
Nant Gwynant - so. of Afon Fiengam	SH6552
Nant Gwynant – flanks of Braich Llwyd	SH6554, SH6654
Nant Gwynant – so. of Afon Glaslyn above hydro bldngs	SH6554
Nant Gywnant – Y Wenallt	SH6453, SH6553
Nant Gywnant – Y Wenallt, sw of footbridge	SH6452
Penrhyndeudraeth - Gwaith Powdwr Nature Reserve	SH6138, SH6139, SH6239
Snowdon	SH6154
Snowdon – Bethania	SH6251, SH6252
Snowdon – Braich yr oen mine	SH6151
Snowdon – so. of summit by 150m	SH6054
Snowdon - nr. train track nr. summit	SH6054
Tynymynydd – Mwynylaudd disused mine	SH7659, SH7758, SH7759

Column headed 'other sites':

This column shows records for the three unrelated sites listed below. None yielded more than 20 records.

Capel Curig - Siabod Holiday Cottages	SH7356
Llugwy Valley - nr. Diosgydd-isaf	SH77065786
Betws y Coed – Ty-hyll, roadside	SH757574

Nicola Bacciu, Steve Price and Ray Woods

Report of the BLS Field Meeting on Unst, Shetland (VC112), 4 - 10 July 2015

A Social Diary

Introduction

Some meetings have a particular attraction and this meeting on Unst was certainly one of those. Islands are always special with boundaries set by nature and Unst had more; it is the furthest north in the British Isles, it is 50 miles closer to Bergen than it is to Aberdeen, and has a very varied geology including the largest exposures of serpentine away from the Lizard at the other end of the country. In addition we had an opportunity to focus on the genus *Cladonia*, thanks to an offer from Annelie Burghause. Twenty-seven members attended, an impressive number considering the time and costs in travel to get there. Like many recent meetings it was very encouraging to see such a mix of young and old, experienced and less so; a sign of a thriving Society.

Accommodation was in the former RAF base of Saxavord in individual houses which were well equipped with all modern facilities. There were opportunities for self catering, whilst others took advantage of a restaurant run separately from the housing but within the complex. Steve, the restaurant manager, with his team of chefs produced some superb meals from a varied menu, especially impressive when considering the difficulties of catering for a large party, where supplies have to be sourced from many miles away.

Participants

Juliet Bailey, Kristine Bogamazova, Lars Borg, Richard Brinklow, Annelie & Frank Burghause, Paul Cannon, Brian & Sandy Coppins, Ginnie Copsey, John Douglas, David Ford, Jenny Ford, Alison Foyster, Brian Gale, Katy Grundy, Les & Sue Knight, Peter Lambley, Heather Paul, Steve Price, Maxine Putnam, Sheila Reid, Alan Silverside, Janet Simkin, Frances Stoakley and Rebecca Yahr.

Saturday 4th July

Lichenologists are if nothing but resourceful and this was demonstrated by the way that members found their way to Saxavord. Many caught the overnight ferry from Aberdeen to Lerwick. Travelling to Aberdeen in a minibus with Becky, or by car, train or air. The crossing was calm and they docked at Lerwick in the early morning and then either drove or in some cases hitched up to Unst. Others flew into Sumburgh, the main airport at the southern end of the islands and then caught one of the two buses a day which make their way northwards from Lerwick, taking two ferries on the way.

Paul Cannon found out why many islanders are complaining on social media about the unreliability of the air service, and ended up being diverted to Orkney. Then having to catch the overnight ferry to Lerwick, thus not arriving until about mid-day on Sunday. A few managed to do some lichen recording on the journey north.

In the evening we had a short briefing on the island and the arrangements for the week and then were glad to get to bed. Though, not before many had sampled the local beers like Simmer Dim (a product of the Valhalla Brewery just 100 metres from the accommodation).

Sunday 5th July

Our first full day on Unst was greeted with damp misty weather, the Scottish term *dreak* summing it up perfectly! After making our own breakfasts we set off to **Lamba Ness**, a finger of land pointing eastwards into the North Sea fringed by coastal rocks composed of granite. To my surprise I met a couple who I had known in Norfolk who had moved north to enjoy the adventurous sea kayaking that Unst can offer. It is a small world! We spent the morning exploring these coastal rocks which yielded some surprises including *Vahliella atlantica*. Whilst we were also reminded by how tricky the sea conditions can be locally when a small crabbing boat came racing round the point using a strong rip tide.

On the granite of Lamba Ness. Image © Steve Price

On our way back we stopped on the coast near Norwick. Here Les Knight explained the geology of a small promontory called the **Taing**. This is a is a key site for demonstrating the closing of the Iapatus Ocean (a proto-Atlantic) some 420 million years ago, during which a lump of the oceanic crust (ophiolite) got caught and squeezed upwards. The ophiolites now occur down the east of Unst resulting in the outcrops of serpentine and related rocks which we were to explore over the few days.

Then onto a well equipped village store to get some provisions for our packed lunches and for some self catering.

In the afternoon we set off walking from Saxavord to the **Hill of Clibberswick**, a gently rising grassland slope with a good scattering of serpentine rocks and boulders cumulating in a 160 metre cliffs dropping steeply to the sea. By then the weather was better and we had wonderful views of the cliffs extending to the north and south. This gave us the first opportunity to see what lichens are associated with this rock-type.

In the evening after our meal we crowded into the lounge of one of the houses and listened whilst Annelie gave a splendid well illustrated and informative talk on the section *Cladina* and red-fruited *Cladonia*s.

Monday 6th July

The morning, if anything, was even more dreak than the previous day. Nevertheless undeterred we set off in three vehicles to **Lund** in the south-west of the island for the **Bordastubble standing stone**. The single impressive stone stands some 3m. high in an otherwise unremarkable moorland with scattered boulders. A couple of hours were spent recording the lichens, prominent of which were: *Bryoria fuscescens*, *Ramalina siliquosa* and *Usnea wasmuthii* giving it a shaggy appearance.

Inspecting the Bordastubble standing stone. Image © Richard Brinklow

We then travelled on a short distance the NTS property at Wick, including the ruined **St Olaf's Chapel & Cemetery**. This stands above a beautiful sandy bay and enabled some members to satisfy their need to record a churchyard and take a walk on a beach. Some looked at the **Loch of Vigga** whilst most members set off towards the headland of **Blue Mull**. The wet sloping grasslands, with small rock outcrops of altered sandstones, provided a happy hunting ground for those who like terricolous lichens with *Psoroma hypnorum* and *Protopannaria pezizoides* both growing in the turf. Whilst *Vahliella leucophaea* occurred at the base of a rock outcrop.

Blue Mull proper is partly separated by a deep inlet with steep cliffs on the other side. Two sheep were feeding about halfway down on a sloping ledge and they

Puffin lichenologist at the beach below St Olaf's chapel. Image © Steve Price

provoked speculation on whether they would ever be able to get off or were they doomed to live out their days on it? The dangers of losing a notebook out in the field were demonstrated by me, fortunately retracing my steps I was able to recover it.

In the evening after our meal we again crowded into the lounge of one of the houses and listened whilst Annelie gave a splendid well illustrated and informative talk, the first of two, on the brown-fruited *Cladonia*s

Tuesday 7th July

Pycnothelia papillaria at Hermaness. Image © Steve Price

Our target today was the National Nature Reserve at **Hermaness** famed for its spectacular sea cliffs largely of quartzites, which hold large populations of seabirds. We headed from the car park on a well made path through moorland, the vegetation broken by small cliffs of peat. Although lichens were not abundant it did provide opportunities to look for *Cladonia* species and the basidiomycete lichens, the latter growing on the moist peat. In places it was nice to find *Pycnothelia papillaria* again growing on peat.

The party were spread out exploring the different features such as the stream bed. As we climbed, we started to come across bonxies (great skuas) totally unfazed by the passing walkers and making delightful subjects for photographs. Finally we broached the cliff edge and were treated to a wonderful vista dropping precipitously below our feet. Puffins kept zipping past and down below gannets, bonxies and other birds circled. There were a few rock outcrops close to the cliff edge and these provided an opportunity to add some common species such as *Ramalina siliquosa* and *Caloplaca crenularia*.

Some members then turned south along the cliff edge whilst others were lured north. Down in a valley a sheep fank (compound) proved to be a good place to stop for lunch. The walls held a good number of species of which the bird perch species *Caloplaca scopularis* was the most notable. A number of us then continued walking north with the sea stacks looking like sugar-coated plumb puddings as they are the home to very large gannetries. Muckle Flugga came in sight, Britain's most northerly lighthouse situated on a small rocky island not far to the north. Rock outcrops were few and far between but one rock supported c. 5 species and may have been the furthest north lichens have been recorded with a precise map reference. Nearby one of us nearly put our feet on a bonxie's nest with 2 downy chicks. Luckily the parents did not seriously attack us. When the party made its way back to the car park there was a general feeling of a satisfying day.

In the evening Annelie gave the third of her talks, this time featuring the rest of the brown fruited *Cladonia*s.

Wednesday 8th July

Ultra-basic rocks at Little Heog. Image © Steve Price

In the night the rain lashed down and the wind howled. We woke to sharp showers blown on a very strong northerly wind. This continued for much of the day though the showers gradually died down by mid-morning. Our first stop was at **Little Heog** where the road runs between a rising rocky outcrop of serpentinite and the coast. Some climbed the wall and headed up the slope whilst others scrambled down towards the shore. We were drawn back to the minibus by the lure of slices of cake to celebrate Becky's birthday.

After stopping for a photo opportunity at the amazing Unst bus shelter, which in 2015 is full of puffin related nicknacks, now a tourist attraction accompanied inevitably by a guardian carved puffin. We then went on a short distance to the **Keen of Hamar NNR**. This is a special site known for its stony serpentine desert which holds populations of a number of rare vascular plants, including an endemic taxon, Edmonston's Chickweed (*Cerastium nigrescens* var. *nigrescens*). Other species found by us included Norwegian Sandwort (*Arenaria norvegica*), Northern Rockcress (*Arabidopsis petraea*), and Hoary Whitlowgrass (*Draba incana*) . This was a magical place to explore though hard work on hands and knees searching amongst the stony rubble. (It was also a way of keeping out of the wind!) This was one of those sites which take a while to appreciate. Many of the more interesting lichens proved to be in patches of turf higher up on the ridge, including *Cetraria islandica* and *Peltigera leucophlebia*. However the star find made by Heather Paul, was undoubtedly *Brigantiaea fuscolutea* This is a beautiful species which encrusts mosses and has golden yellow apothecia on a grey-green to yellow-white thallus.

Brigantiaea fuscolutea on the ground at Keen of Hamar NNR. Image © Heather Paul

In the afternoon we moved on to **Halligarth Wood (NTS)**, the most northerly wood in the British Isles, a plantation of sycamores with some elm surrounded by a stone wall. Originally planted in the 1920s by a naturalist clergyman to provide some shelter for migrant birds; it is now one of the very few sites for corticolous lichens on the island. It was strange for some to see *Anaptychia runcinata* as an epiphyte though this is known in other western areas. An initially puzzling lichen proved to be *Physconia distorta* looking somewhat different from usual in this rather dense wood. At the far end there was a small graveyard and additional species were added there. Altogether this was an interesting experience and a chance to get out of the wind. On our way back to the vehicles attention was drawn to a police phone box as the type used by a certain Dr Who. Photographs were taken but whilst we were there at any rate it did not disappear off to past or future time!

One group then took a diversion on the way back and drove up to the radar station at Saxa Vord where we had excellent views across the northern part of the island. It all seemed very deserted so we got out rather ignoring warnings about radiation hazards and did a brief bit of lichenology. One species provoked discussion growing in a hollow on a lump of concrete. It proved to be *Solorina spongiosa*, a nice find in such a remote unpromising place.

In the evening nearly all of the group had a meal in the restaurant. This was followed by a spin-off of the Great British Bake off. As it was Becky's birthday five of the staff had baked cakes which were now presented to a panel of 5 judges for their views. Although the youngest aged only 15 did not win there were a number of us who reckoned it was the best. I think this became more about different tastes in cakes! Nevertheless it was a lovely and amusing event. We were very fortunate that the resturant team were so happy to take part and applause for both Becky and the chefs was very full indeed.

Thursday 9th July

From Valla Field, overlooking Collaster. Image © Steve Price

Thursday dawned with a hint of rain in the air but fortunately after the briefest of showers it dried up and was another good day weather-wise for lichenology. This time we headed again for the south-west part of the island this time to **Collaster & Valla Field (NTS)**. A stretch of granite coast, though with

some calcareous rock to the north. Most people started by recording the lichens on an old byre.

Haematomma ochroleucum on an old wall, Collaster

Then some moved down to the coastal rocks whilst a small party headed northwards towards the calcareous rock outcrop. Others headed inland where Valla Field, a moderately steep hillside, beckoned with rock outcrops. Surprisingly species of *Umbilicaria* were scarce throughout but at this site there was one rock with *Umbilicaria torrefacta*. On the top of the ridge an old concrete water reservoir supported a number of lichens which prefer this substrate like *Caloplaca oasis* and *Lecidella stigmatea*. Those that found the limestone further north had a number of nice finds. On the way back several of us stopped to look at the remains of a broch and nearby a Viking longhouse, a reminder of the rich and turbulent history of Britain's furthest north.

The evening was spent filling in cards and some last minute identifications.

Friday 10th July

The day of departure. Some left early on the morning bus (more of a minibus) whilst others were able to take more time before leaving, some intended to stay in the Shetlands for a few more days. Whilst it is always sad when these meetings end we were left with very many happy memories of the lichens and the special places which are found here.

Microcscope work in the evening. Note the innovative use of baked bean tins… Image © Steve Price

Thanks must go to all those who in various ways made this meeting such a success. To the National Trust for Scotland and Scottish Natural Heritage for permission to visit and collect on their sites. To our very local contact, Alison Foyster, for loaning us her projector screen and to Jonathan Swale of SNH for loaning us his own digital projector. To Annelie for putting together such good presentations on the genus *Cladonia*. Also to Becky, Steve and John for putting in all the hard work to source such excellent accommodation and do the reconnaissance to find the sites to visit. Also to Becky and Paul for acting as mini-bus and big-car drivers respectively. And to Brian Coppins for co-ordinating and inputting all the records.

This very productive meeting generated 1574 records of 323 taxa, including:

1 new to the British Isles (*Arthonia protoparmeliae* - reported in BLS Bulletin 117, 'New, Rare and Interesting');

135 new to Unst (including 20 lichenicolous fungi)72 new to Shetland (including 19 lichenicolous fungi).

Table of Taxa

The sites in the table of taxa have been aggregated. All the records have been applied to the database for each site separately and at a resolution of at least 1km square.
note: not all of the sites below were visited by the group. Some were recorded as part of the recce visit a couple of days before the meeting and some others were recorded by individuals and family parties as alternatives to the group outings.

	Lamba Ness	Hill of Clibberswick	Bordastubble standing stone etc.	St Olaf's Chapel & Cemetery	Wick - Blue Mull, Loch of Vigga	Hermaness NNR	Haroldswick - Little Heog	Keen of Hamar NNR	Halligarth Wood & graveyard	Collaster & Valla Field	Clivocast etc.	Loch of Watlee	Saxa Vord resort & vicinity	Wick of Shaw - Bluejibs & to N.	other various sites (see below)	New to Unst	New to VC112
Acarospora fuscata					•					•			•	•			
Acrocordia macrospora							•										
Agonimia tristicula		•			•		•	•									
Amandinea coniops				•						•	•						
Amandinea pelidna				•												*	*
Amandinea punctata				•	•	•				•	•			•			
Anaptychia runcinata	•	•		•	•	•	•	•	•	•	•			•	•		
Anisomeridium biforme									•							*	
Anisomeridium polypori									•							*	
Arthonia apotheciorum				•												*	*
Arthonia didyma									•							*	*
Arthonia muscigena									•							*	*
Arthonia phaeobaea	•															*	
Arthonia protoparmeliae			•													*	*
Arthonia radiata									•	•							
Arthonia varians			•	•	•					•	•		•			*	
Arthrorhaphis aeruginosa						•										*	*
Aspicilia caesiocinerea			•		•	•				•				•		*	
Aspicilia cinerea s. lat.												•				*	*
Aspicilia leprosescens	•	•		•	•	•	•			•	•				•		
Bacidia arceutina									•							*	
Bacidia carneoglauca		•														*	*
Bacidia phacodes									•							*	*
Bacidia scopulicola	•			•										•		*	
Baeomyces rufus					•	•				•	•		•				
Belonia nidarosiensis				•												*	
Bilimbia sabuletorum				•													
Brigantiaea fuscolutea		•						•								*	
Bryoria fuscescens			•			•				•	•						
Buellia aethalea				•		•					•					*	
Buellia griseovirens						•					•				•	*	*
Bunodophoron melanocarpum										•						*	

	Lamba Ness	Hill of Clibberswick	Bordastubble standing stone etc.	St Olaf's Chapel & Cemetery	Wick - Blue Mull, Loch of Vigga	Hermaness NNR	Haroldswick - Little Heog	Keen of Hamar NNR	Halligarth Wood & graveyard	Collaster & Valla Field	Clivocast etc.	Loch of Watlee	Saxa Vord resort & vicinity	Wick of Shaw - Bluejibs & to N.	other various sites (see below)	New to Unst	New to VC112
Caloplaca arcis				•							•					*	*
Caloplaca arnoldii subsp. *oblitterata*				•		•										*	
Caloplaca britannica	•															*	
Caloplaca ceracea	•	•			•					•						*	
Caloplaca cerina var. *cerina*									•	•						*	
Caloplaca chlorina									•							*	*
Caloplaca citrina s. lat.														•			
Caloplaca crenularia	•	•		•	•	•	•	•		•	•	•	•	•	•		
Caloplaca crenulatella													•			*	*
Caloplaca dichroa				•		•					•		•			*	*
Caloplaca flavescens				•												*	
Caloplaca flavocitrina				•												*	*
Caloplaca holocarpa s. lat.					•	•							•				
Caloplaca holocarpa s. str.		•		•	•	•	•	•			•						
Caloplaca littorea														•		*	*
Caloplaca marina	•				•					•				•	•		
Caloplaca microthallina	•				•					•				•			
Caloplaca oasis				•						•			•		•	*	*
Caloplaca phlogina					•											*	*
Caloplaca saxicola				•									•				
Caloplaca scopularis					•	•										*	
Caloplaca sorediella	•							•		•						*	*
Caloplaca thallincola	•							•		•				•	•		
Caloplaca verruculifera					•					•				•			
Candelariella aurella f. *aurella*				•		•							•				
Candelariella coralliza						•										*	
Candelariella vitellina f. *vitellina*	•	•	•	•	•	•	•	•	•	•	•	•		•	•		
Catapyrenium cinereum	•				•					•							
Catillaria chalybeia var. *chalybeia*	•	•	•	•		•	•	•		•	•		•		•		
Cecidonia xenophana					•	•										*	*
Cetraria aculeata		•			•	•		•		•					•		

	Lamba Ness	Hill of Clibberswick	Bordastubble standing stone etc.	St Olaf's Chapel & Cemetery	Wick - Blue Mull, Loch of Vigga	Hermaness NNR	Haroldswick - Little Heog	Keen of Hamar NNR	Halligarth Wood & graveyard	Collaster & Valla Field	Clivocast etc.	Loch of Watlee	Saxa Vord resort & vicinity	Wick of Shaw - Bluejibs & to N.	other various sites (see below)	New to Unst	New to VC112
Cetraria islandica subsp. *islandica*								•									
Cetraria muricata		•			•							•					
Cladonia arbuscula subsp. *squarrosa*		•	•		•	•	•			•	•						
Cladonia bellidiflora						•						•	•				
Cladonia cervicornis subsp. *cervicornis*					•	•	•			•							
Cladonia cervicornis subsp. *verticillata*					•	•											
Cladonia chlorophaea s. lat.		•				•				•					•		
Cladonia ciliata var. *tenuis*		•	•		•	•	•	•		•	•	•	•				
Cladonia coccifera s. lat.					•	•											
Cladonia coccifera s. lat.						•											
Cladonia coniocraea						•											
Cladonia diversa		•			•	•											
Cladonia floerkeana						•				•					•		
Cladonia foliacea		•			•	•	•	•		•	•	•					
Cladonia furcata subsp. *furcata*	•	•	•	•	•	•	•	•		•				•	•		
Cladonia gracilis		•															
Cladonia macilenta						•										*	
Cladonia portentosa		•			•	•	•	•		•		•	•				
Cladonia pyxidata	•	•	•	•	•	•	•		•	•							
Cladonia rangiferina					•											*	
Cladonia rangiformis		•					•	•		•							
Cladonia squamosa s. lat.						•				•							
Cladonia squamosa var. *subsquamosa*		•				•											
Cladonia strepsilis			•		•	•	•			•						*	
Cladonia subcervicornis		•			•	•	•			•		•					
Cladonia uncialis subsp. *biuncialis*		•	•		•	•	•	•		•	•	•	•				
Clauzadea monticola				•													
Cliostomum griffithii		•	•			•			•		•				•		

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Cliostomum tenerum	•			•	•						•						
Collema crispum var. *crispum*				•			•						•			*	
Collema tenax var. *ceranoides*											•				•	*	
Collema tenax var. *tenax*							•										
Collema tenax var. *vulgare*								•								*	
Collemopsidium foveolatum											•			•			
Cystocoleus ebeneus						•										*	
Dactylospora parasitica						•										*	*
Dactylospora parellaria								•				•				*	*
Dermatocarpon meiophyllizum					•							•				*	*
Dermatocarpon miniatum					•							•				*	
Dibaeis baeomyces						•										*	
Diplotomma alboatrum				•							•						
Diplotomma pharcidium									•							*	*
Evernia prunastri						•							•				
Flavoparmelia caperata									•							*	*
Fuscidea cyathoides var. *cyathoides*		•	•	•	•	•		•	•	20	•	•	•		•		
Fuscidea lygaea		•				•	•	•		•	•						
Gyalecta foveolaris										•							
Haematomma ochroleucum var. *ochroleucum*						•											
Haematomma ochroleucum var. *porphyrium*			•			•				•							
Halecania ralfsii	•				•											*	*
Homostegia piggotii						•										*	*
Hydropunctaria maura	•			•	•		•	•		•	•			•	•		
Hypogymnia physodes		•	•		•	•				•	•				•		
Ionaspis lacustris		•			•	•	•		•	•		•			•		
Lecania baeomma	•				•	•					•						
Lecania cyrtella					•												
Lecania cyrtellina									•							*	*
Lecania erysibe s. str.				•													
Lecania hutchinsiae				•				•	•							*	

	Lamba Ness	Hill of Clibberswick	Bordastubble standing stone etc.	St Olaf's Chapel & Cemetery	Wick - Blue Mull, Loch of Vigga	Hermaness NNR	Haroldswick - Little Heog	Keen of Hamar NNR	Halligarth Wood & graveyard	Collaster & Valla Field	Clivocast etc.	Loch of Watlee	Saxa Vord resort & vicinity	Wick of Shaw - Bluejibs & to N.	other various sites (see below)	New to Unst	New to VC112
Lecania subfuscula						•	•									*	
Lecanora albescens				•		•				•	•		•				
Lecanora campestris subsp. *campestris*				•	•	•											
Lecanora carpinea									•							*	
Lecanora chlarotera						•			•		•						
Lecanora confusa		•				•											
Lecanora crenulata				•												*	
Lecanora dispersa					•					•	•		•		•		
Lecanora expallens		•	•			•			•	•	•				•		
Lecanora farinaria						•				•	•		•				
Lecanora gangaleoides	•		•		•			•		•	•		•	•			
Lecanora hagenii		•		•		•		•	•							*	*
Lecanora helicopis	•			•	•									•	•		
Lecanora intricata				•	•												
Lecanora orosthea										•						*	
Lecanora poliophaea	•				•	•				•	•			•	•		
Lecanora polytropa		•	•	•	•	•				•	•	•	•		•		
Lecanora pulicaris					•									•	•		
Lecanora rupicola var. *rupicola*			•	•	•					•	•						
Lecanora saligna		•														*	*
Lecanora sulphurea	•	•	•	•	•	•	•	•		•	•	•			•		
Lecanora symmicta														•			
Lecanora zosterae	•				•					•						*	
Lecidea berengeriana										•							
Lecidea diducens				•		•										*	
Lecidea fuscoatra s. lat.			•			•										*	
Lecidea hypnorum		•					•	•									
Lecidea lactea s. lat.													•				
Lecidea lactea s. str.					•												
Lecidea lithophila											•						
Lecidea turgidula						•										*	
Lecidella asema	•	•	•	•	•	•	•	•		•	•	•		•			

	Lamba Ness	Hill of Clibberswick	Bordastubble standing stone etc.	St Olaf's Chapel & Cemetery	Wick - Blue Mull, Loch of Vigga	Hermaness NNR	Haroldswick - Little Heog	Keen of Hamar NNR	Halligarth Wood & graveyard	Collaster & Valla Field	Clivocast etc.	Loch of Watlee	Saxa Vord resort & vicinity	Wick of Shaw - Bluejibs & to N.	other various sites (see below)	New to Unst	New to VC112
Lecidella elaeochroma f. *elaeochroma*									•	•					•		
Lecidella meiococca	•			•	•			•		•	•				•		
Lecidella scabra		•		•	•		•		•		•						
Lecidella stigmatea		•		•			•	•		•			•				
Lepraria ecorticata						•				•						*	*
Lepraria incana s. lat.										•							
Lepraria lobificans				•	•	•			•								
Leptogium britannicum	•	•					•			•							
Leptogium gelatinosum	•	•								•							
Leptogium intermedium										•						*	*
Leptogium pulvinatum	•						•									*	*
Lichenochora aprica															•	*	*
Lichenomphalia alpina						•											
Lichenomphalia alpina										•							
Lichenomphalia hudsoniana						•				•					•		
Lichenomphalia umbellifera					•	•				•							
Lichina confinis	•				•		•			•							
Lichina pygmaea														•			
Megalaria pulverea						•	•	•								*	*
Melanelixia fuliginosa			•	•	•	•				•							
Melanelixia glabratula				•		•			•								
Melanelixia subaurifera						•			•								
Melaspilea interjecta						•										*	*
Micarea bauschiana						•										*	
Micarea botryoides						•										*	*
Micarea denigrata										•						*	
Micarea leprosula						•										*	
Micarea lignaria var. *lignaria*		•				•		•				•	•				
Micarea peliocarpa	•					•										*	
Micarea xanthonica						•										*	*
Muellerella lichenicola				•												*	*
Muellerella pygmaea					•											*	*

	Lamba Ness	Hill of Clibberswick	Bordastubble standing stone etc.	St Olaf's Chapel & Cemetery	Wick - Blue Mull, Loch of Vigga	Hermaness NNR	Haroldswick - Little Heog	Keen of Hamar NNR	Halligarth Wood & graveyard	Collaster & Valla Field	Clivocast etc.	Loch of Watlee	Saxa Vord resort & vicinity	Wick of Shaw - Bluejibs & to N.	other various sites (see below)	New to Unst	New to VC112
Mycoblastus caesius						•										*	*
Myriospora smaragdula						•	•			•							
Nephroma laevigatum							•									*	
Ochrolechia androgyna			•		•	•				•							
Ochrolechia frigida f. *frigida*		•			•												
Ochrolechia parella	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•		
Ochrolechia tartarea			•		•					•	•	•					
Opegrapha areniseda	•			•												*	*
Opegrapha atra									•							*	
Opegrapha calcarea	•	•		•	•	•	•			•	•			•			
Opegrapha cesareensis	•			•												*	
Opegrapha glaucomaria				•							•					*	*
Opegrapha gyrocarpa				•	•	•					•					*	
Opegrapha herbarum									•							*	
Opegrapha multipuncta	•	•			•			•	•	•	•						
Opegrapha on *Pertusaria lactescens*											•						
Opegrapha physciaria				•							•					*	*
Opegrapha varia									•							*	*
Opegrapha vulgata									•							*	
Ophioparma ventosa										•						*	
Parmelia discordans										•						*	*
Parmelia omphalodes	•	•	•		•	•	•	•		•		•					
Parmelia saxatilis	•	•	•	•	•	•		•	•	•	•	•		•	•		
Parmelia sulcata	•	•	•	•	•	•		•	•	•	•	•	•	•	•		
Parmotrema crinitum		•					•										
Parmotrema perlatum		•		•		•	•		•		•				•		
Peltigera canina	•	•		•	•		•	•			•						
Peltigera hymenina	•				•	•	•	•	0	•	•		•		•		
Peltigera leucophlebia		•						•								*	*
Peltigera membranacea		•			•	•	•	•		•	•	•	•	•	•		
Pertusaria albescens var. *albescens*									•							*	*

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Pertusaria albescens var. *corallina*															•	*	*
Pertusaria aspergilla										•		•				*	
Pertusaria chiodectonoides							•										
Pertusaria corallina										•	•	•					
Pertusaria lactescens				•	•					•	•					*	
Pertusaria pseudocorallina					•	•				•							
Phaeophyscia orbicularis				•	•	•			•				•				
Physcia adscendens									•								
Physcia caesia					•				•						•	*	
Physcia dubia				•												*	
Physcia tenella	•	•		•	•	•	•	•	•	•				•	•		
Physconia distorta									•							*	*
Placopyrenium fuscellum				•													
Placynthiella icmalea					•	•				•							
Platismatia glauca			•							11					•		
Polyblastia cupularis		•					•	•									
Polysporina simplex						•					•						
Porina aenea									•							*	
Porina chlorotica f. *chlorotica*		•	•	•			•	•									
Porpidia cinereoatra					•	•	•			•							
Porpidia crustulata					•	•		•		•	•	•					
Porpidia hydrophila						•										*	
Porpidia macrocarpa f. *macrocarpa*	•	•			•	•		•		•							
Porpidia platycarpoides	•		•		•					•		•		•			
Porpidia tuberculosa	•	•	•		•	•				•	•	•	•		•		
Protopannaria pezizoides		•			•	•	•	•		•				•			
Protoparmelia badia			•		•					•							
Pseudevernia furfuracea s. lat.			•														
Psoroma hypnorum					•					•				•			
Pycnothelia papillaria						•											
Ramalina cuspidata	•									•							

	Lamba Ness	Hill of Clibberswick	Bordastubble standing stone etc.	St Olaf's Chapel & Cemetery	Wick - Blue Mull, Loch of Vigga	Hermaness NNR	Haroldswick - Little Heog	Keen of Hamar NNR	Halligarth Wood & graveyard	Collaster & Valla Field	Clivocast etc.	Loch of Watlee	Saxa Vord resort & vicinity	Wick of Shaw - Bluejibs & to N.	other various sites (see below)	New to Unst	New to VC112
Ramalina farinacea						•			•				•				
Ramalina fastigiata									•								
Ramalina lacera				•												*	*
Ramalina siliquosa	•	•	•	•	•	•	•	•		•	•			•	•		
Ramalina subfarinacea		•	•	•	•	•	•		•	•	•			•	•		
Rhizocarpon geographicum			•		•	•				•		•					
Rhizocarpon lavatum						•										*	
Rhizocarpon petraeum						•	•										
Rhizocarpon reductum	•	•	•	•	•	•	•	•	•	•	•	•			•		
Rhizocarpon richardii	•			•	•					•							
Rinodina atrocinerea			•														
Rinodina confragosa		•					•			•							
Rinodina oleae	•			•	•	•					•	•	•	•			
Rinodina teichophila				•												*	*
Roselliniopsis tartaricola		•														*	*
Sagediopsis campsteriana			•													*	*
Schaereria fuscocinerea var. *fuscocinerea*										•							
Sclerococcum montagnei											•					*	*
Scoliciosporum chlorococcum						•			•							*	
Scoliciosporum umbrinum			•		•				•		•						
Solenopsora vulturiensis					•											*	
Solorina spongiosa															•	*	*
Sphaerellothecium araneosum			•													*	*
Sphaerophorus globosus		•	•		•	•	•	•		•							
Staurothele fissa					•											*	*
Stereocaulon vesuvianum var. *nodulosum*										•						*	*
Stereocaulon vesuvianum var. *vesuvianum*										•						*	
Stigmidium peltideae								•								*	*
Strigula taylorii									•							*	*
Telogalla olivieri				•					•								
Tephromela atra var. *atra*	•	•	•	•	•	•	•	•	•	•	•	•		•			

	Lamba Ness	Hill of Clibberswick	Bordastubble standing stone etc.	St Olaf's Chapel & Cemetery	Wick - Blue Mull, Loch of Vigga	Hermaness NNR	Haroldswick - Little Heog	Keen of Hamar NNR	Halligarth Wood & graveyard	Collaster & Valla Field	Clivocast etc.	Loch of Watlee	Saxa Vord resort & vicinity	Wick of Shaw - Bluejibs & to N.	other various sites (see below)	New to Unst	New to VC112
Tephromela grumosa		•														*	
Thamnolia vermicularis var. *subuliformis*								•								*	
Thelenella muscorum var. *muscorum*		•															
Thelenella muscorum var. *octospora*	•															*	*
Thelocarpon epibolum var. *epithallinum*								•								*	*
Toninia aromatica				•	•	•	•			•	•		•				
Trapelia coarctata		•		•		•	•										
Trapelia corticola						•										*	*
Trapeliopsis flexuosa					•	•										*	
Trapeliopsis gelatinosa						•										*	
Trapeliopsis pseudogranulosa						•				•					•		
Tuckermannopsis chlorophylla			•														
Umbilicaria polyphylla					•												
Umbilicaria torrefacta										•						*	
Usnea wasmuthii			•														
Vahliella atlantica	•															*	*
Vahliella leucophaea					•		•			•						*	
Verrucaria dolosa							•	•								*	*
Verrucaria funckii						•										*	*
Verrucaria fusconigrescens	•	•		•	•	•	•	•	•	•	•			•			
Verrucaria macrostoma f. *furfuracea*											•					*	*
Verrucaria mucosa											•						
Verrucaria muralis				•			•										
Verrucaria nigrescens f. *nigrescens*				•													
Verrucaria striatula											•						
Verrucaria viridula				•													
Violella fucata													•		•		
Vouauxiella lichenicola									•							*	*
Xanthoria aureola					•					•	•			•	•		

	Lamba Ness	Hill of Clibberswick	Bordastubble standing stone etc.	St Olaf's Chapel & Cemetery	Wick - Blue Mull, Loch of Vigga	Hermaness NNR	Haroldswick - Little Heog	Keen of Hamar NNR	Halligarth Wood & graveyard	Collaster & Valla Field	Clivocast etc.	Loch of Watlee	Saxa Vord resort & vicinity	Wick of Shaw - Bluejibs & to N.	other various sites (see below)	New to Unst	New to VC112
Xanthoria calcicola				•													
Xanthoria candelaria s. lat.			•														
Xanthoria candelaria s. str.	•		•	•		•				•							
Xanthoria parietina	•	•		•	•	•	•	•	•	•	•	•	•	•	•		
Xanthoria ucrainica					•									•		*	*
Zwackhiomyces coepulonus				•												*	*
Zwackhiomyces lacustris						•										*	*

List of sites visited and grid references:

Lamba Ness
Lamba Ness HP6715
Hill of Clibberswick
Hill of Clibberswick HP6513
Hill of Clibberswick - lower slopes HP6413
Hill of Clibberswick - summit area HP6612
Lund - Bordastubble
Lund - Bordastubble standing stone HP578033
Lund - vicinity of Bordastubble standing stone HP578033
Lund - St Olaf's Chapel & Cemetery [NTS]
Lund - St Olaf's Chapel & Cemetery HP566040
Lund - Wick - Blue Mull, Loch of Vigga [NTS]
Lund - Wick - Blue Mull HP5504
Lund - Wick - Blue Mull - E of HP5604
Lund - Wick - Loch of Vigga HP5603
Lund - Wick - E end of beach HP571040
Hermaness NNR
Hermaness NNR - car park area HP612148
Hermaness NNR - Burn of Winnaswarta Dale (W) HP6015
Hermaness NNR - Burn of Winnaswarta Dale (E) HP6115
Hermaness NNR - N of boardwalk HP6016
Hermaness NNR - West Sothers Dale HP602168
Hermaness NNR - Hermaness Hill HP6017
Hermaness NNR - cliffs near Neap HP5916
Harold's Wick
Harold's Wick - E side of A968 road - near Tull Geo HP6411
Harold's Wick - E side of A968 road - N of Skeggie HP6410
Harold's Wick - Little Heog - N side - W side of A968 road HP6311
Harold's Wick - Little Heog - N side HP638115

Harold's Wick - Little Heog - S side	HP637109
Keen of Hamar NNR	
Keen of Hamar NNR	HP6409
Keen of Hamar NNR (N)	HP6410
Baltasound - Halligarth [NTS]	
Baltasound - Halligarth - woodland	HP625093
Baltasound - Halligarth - burial ground	HP625093
Collaster & Valla Field [NTS]	
Collaster [NTS]	HP5707
Collaster & Valla Field [NTS] - NW	HP5708
Collaster & Valla Field [NTS] - E	HP5807
Collaster & Valla Field [NTS] - NE	HP5808
Collaster & Valla Field [NTS] - SE	HP5706
Collaster & Valla Field [NTS] - Skitsack	HP5709
Clivocast; Muness Castle, Sandwick - "iron-age" house; Framgord Chapel & Cemetery	
Clivocast - Uyea Breck standing stone	HP605007
Clivocast - small standing stone	HP604005
Clivocast & Uyea Breck standing stone	HP605007
Clivocast - Uyea Break [Breck]	HP614007
Muness Castle	HP629012
Muness Castle	HP628012
Sandwick - Hannigarth	HP6101
Sandwick - Stead - "iron-age" house	HP621020
Sandwick - Sand Wick	HP619021
Sandwick - Framgord Chapel & Cemetery	HP619028
Sandwick - Sand Wick - N side	HP617027
Loch of Watlee [NTS]	HP5904
Valsgarth - Saxa Vord resort & area inc. Harold's Wick Methodist Church	
Valsgarth - Saxa Vord	HP6413
Valsgarth - bottom of hill below Saxa Vord resort	HP6313
Valsgarth - Housi Field & White Haggle	HP6313
Valsgarth - Housi Field & White Haggle	HP6314
Harold's Wick – Methodist Church	HP646133
Wick of Shaw	
Wick of Shaw - Bluejibs	HP6616
Wick of Skaw - N of	HP663168

Column headed 'other sites':

This column shows records for the nine unrelated sites listed below. For none of these sites were there more than 20 records.

Baltasound	HP62280940
Baltasound - Hamar	HP641091
Norwick - The Taing	HP6514
Norwick Cemetery	HP651140
Saxa Vord - near old RAF buildings	HP6316
Saxa Vord headland - NW	HP628175
Saxa Vord hill	HP632156
Small Waters	HP588029
Underhoull broch and viking longhouse	HP574044

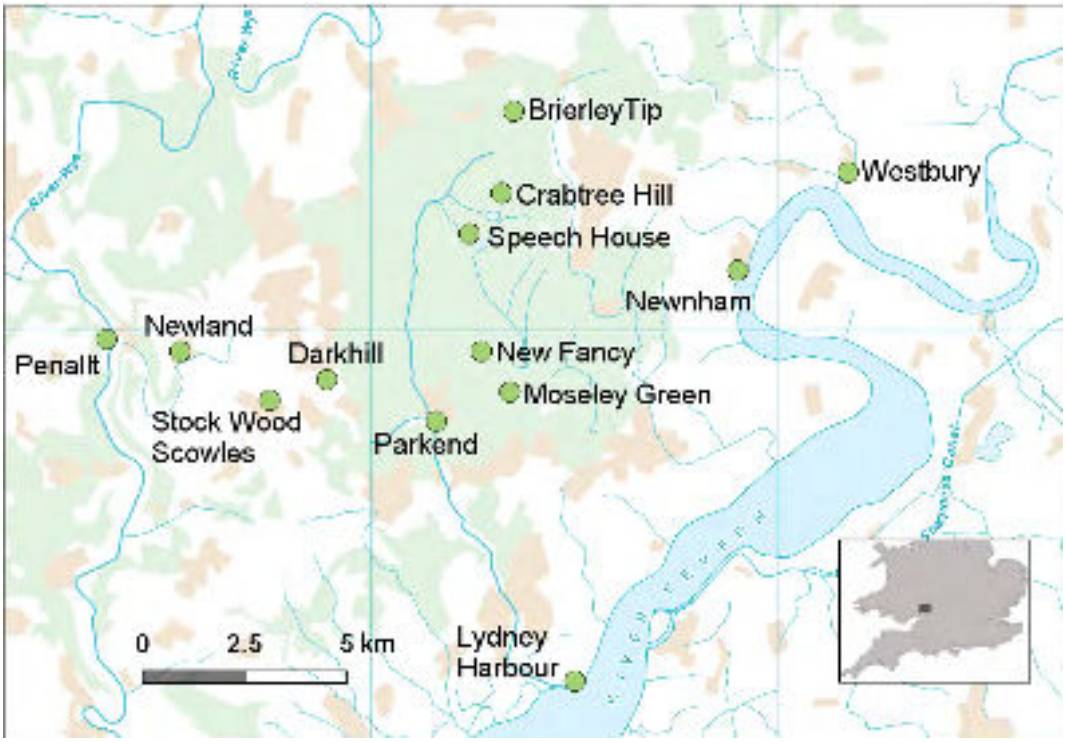
Peter Lambley, Brian Coppins and Steve Price

Report of the BLS Field Meeting, Forest of Dean, 25-28 September 2015

BLS group in the Speech House area (left to right). Paul Bowyer, Steve Price, Heather Colls, Mark Powell, Ginnie Copsey, Matt Prince, Nicola Bacciu, Les Knight, Sue Knight, Alan Orange, Theresa Greenaway, David Hill, Maxine Putnam, Lesley Balfe, Ken Sandell, Graham Boswell, Juliet Bailey, Catherine Tregaskes, Ishpi Blatchley, Pat Wolseley, Shirley Hancock, Oliver Moore, Paula Shipway. (note: the soil was rooted up by wild-boar not Heather's terrier!)

The British Lichen Society held its autumn 2015 meeting in the Forest of Dean, Gloucestershire, based at the Fountain Inn, Parkend. The Dean was at its best, bathed in gentle warm sunshine, perfect for field work. Twenty three people took part over the weekend recording 294 species, including 30 first vice-county records. I hope to make our findings widely available and enthuse the public about lichens through the Foresters' Forest, a Heritage Lottery Funded scheme that is currently in its development phase here.

The meeting started on Thursday evening with an illustrated talk by Andrew Bluett of the Gloucestershire Naturalists' Society covering the Dean's history, people, geology, industry and wildlife. He set the scene, providing the framework for understanding the lichen communities present.



Friday 25 September 2015

Speech House Oaks SSSI and surrounding area (SO6212). This was the day for people to settle in to the local corticolous lichen flora, knowing what to expect from a 2008 survey by Neil Sanderson that had been commissioned by Natural England. Plenty of the rarities were refound, and six new VC records: *Chaenothecopsis pusilla* and *Ochrolechia tartarea* by Steve Price and *Abrothallus microspermus* (confirmed by Brian Coppins), *Cyrtidula quercus, Phaeographis smithii* and *Vouauxiomyces truncatus* by David Hill. Everyone commented on the sheer abundance of *Lecanactis abietina* on the oak trunks, absolutely the dominant species, giving them a pale mauve cast.

We continued in the Speech House area in the afternoon, some people splitting off north towards Crabtree Hill (SO6313) where in recent years there has been a campaign of clearing conifer plantation in an attempt to bring back heathland to the Dean. The cleared areas are not rich in lichens currently, so I will be able to study lichen colonisation from a very low baseline.

In the evening part of the group drove to the River Wye at Redbrook. We crossed over the footbridge to the Welsh side at Penallt (SO535098). The river crossing is tantalising, on a metal footbridge bolted to an old railway bridge where the gappy sleepers have a glorious cover of Cladonias with the swirling Wye some 50ft below. Safety considerations did not allow a closer investigation. However, we had a very pleasant walk along the Welsh bank in the evening sun, gathering records. Mark Powell introduced us to *Halecania viridescens.* This is silently sweeping across the country; it is very small and nondescript, looking just like algal crud in grainy areoles

until on close examination you see the bright green scuffs of farinose soredia, and testing with Pd gives an orange reaction (red if your Pd is strong enough).

Saturday 26 September 2015

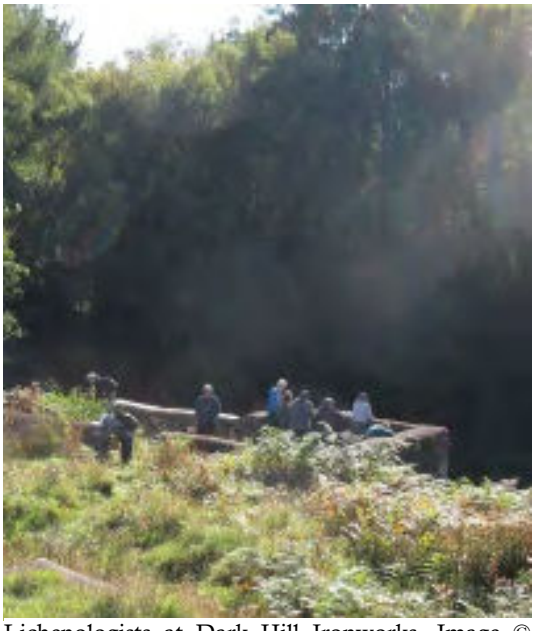
Moseley Green (SO6308) was the site for the morning's visit. This has ancient oaks and younger plantations, and an area cleared of conifers where the stumps are producing a good flush of Cladonias. Ten Cladonias were found, with the widespread but local species of old woodland, *Cladonia parasitica*, being particularly abundant.

Moseley Green produced five first County records: *Bacidia fuscoviridis, Opegrapha zonata* and *Placynthiella dasaea* by Alan Orange, *Micarea misella* by Steve Price and Mark Powell, and *Porpidia platycarpoides* by Steve Price. Pat Wolseley found the first post-2000 County record for *Pertusaria multipuncta*.

In the afternoon a small group that specialises in churchyard lichens split off on their own, visiting Westbury on Severn where they recorded 99 species including four first County records - *Aspicilia grisea*, *Polysporina subfuscescens*, *Lecania hutchinsiae* and *Verrucaria obfuscans.* [Further discussion of the highlights of the churchyard group's visits in the Dean are reported by Mark Powell elsewhere in this Issue.]

Meanwhile, others went to a nearby plot with some ash trees (a rare tree in the Dean heartland) to record the species there as part of the SPLASH project which is aiming to gather baseline data currently so that the impact of Ash Dieback disease when it finally takes hold, can be monitored. This was thus the site of the first County record for *Halecania viridescens*, as we had been introduced to it the night before in Wales!

Sunday 27 September 2015, theme for the day, Industrial Heritage.



Lichenologists at Dark Hill Ironworks. Image © Ginnie Copsey

The first place visited was the ruins of Darkhill Ironworks (SO589088) where the Bessemer process was perfected in 1856. There appeared to be few great surprises here, though all enjoyed the morning sun shining hot onto the walls, and the beautiful amphitheatre setting. David Hill turned up the first County record of *Didymellopsis pulposi* (confirmed by Brian Coppins), growing on *Collema tenax* - lichenicolous fungi are very much the fashionable place to be in lichenology currently, as if lichenology were not complicated enough! David Hill made a field identification of *Rhizocarpon umbilicatum*, had a moment of self-doubt wondering if it were just a pruinose *Rhizocarpon petraeum*, but shared his thoughts with Mark Powell who on

careful microscopic examination confirmed the first County record for *Rhizocarpon umbilicatum*.

During the middle part of the day we visited Stock Wood Scowles, Clearwell (SO575083). This is a visitor attraction known as the Secret Forest and Iron Age village. We were led by Elaine Morman, the site manager and only female free-miner (an ancient Dean tradition dependant on birthright). Following in the recent footsteps of a Star Wars film crew, we went down into the scowles which are open-air pits of varying depth and unknown age, possibly natural in origin but worked for iron maybe since Roman times and now covered with trees. This started off none-too promising, with dire warnings of danger of death and a talk more full of mystery and folk-lore than hard-nosed natural historians are usually expected to stomach. However, we soon got to the dark depths where everyone was transfixed by the weird beauty and charm of the place. We even made a few lichen records.

Emerging into the daylight, into the mock-up Iron Age Village, we were able to make further lichen records on the earth roofs of the huts and shelters. Steve Price recorded *Trapeliopsis gelatinosa*, a first County record. Examining the trees near the cafe yielded some excellent records, of *Caloplaca ulcerosa* fruiting beautifully on a field maple, and *Catillaria fungoides*, another new County record by Mark Powell on a young ash.

Examining Cladonias on the earth roof of a shelter, Stock Wood iron age village. Image © Ginnie Copsey

I felt that I had short-changed the northern contingent with the lack of mine spoil at Dark Hills, so the party once again split into different groups, with the church team going off to Newnham on Severn (SO690115) where they got 90 species including *Verrucaria ochrostoma* and *Llimonaea sorediata* as first County records.

Another group led by David Hill, went to Lydney Harbour (SO6501). They recorded 23 species on the walls and pavements of this historic site that was once the Dean's main link to the outside world. They did not venture out onto the narrow salt marsh or boulders protecting the sea wall, so none of the species recorded showed the maritime influence that can be detected here.

A small third party went to the Northern United Spoil tip near Brierley (SO634155). The Dean must quite recently have been covered with this type of habitat, but large-scale coal mining largely ceased in the 1960s, and most of the old spoil heaps have disappeared under a hat of planted conifers. This one has too, but there is a long tail of spoil where the trees are growing very slowly. I was delighted to encounter the metallophytes *Stereocaulon dactylophyllum* (confirmed by Becky Yahr) and *Rhizocarpon oederi* on the boulders here, first Vice-county records in Gloucestershire though it is hard to believe that they wouldn't once have been relatively frequent in the Dean.

Monday 28 September 2015

Tephromela grumosa on a gravestone at Parkend Church. Image © Paula Shipway

By Monday morning many people had left, but those remaining visited two churches. Firstly we made a quick visit to Parkend Church (SO619076), just five minutes on foot from the Fountain. This was built on a new site in the 1820s, and one would not normally expect such a recent yard to hold anything unusual. However, maybe because of its damp sylvan setting this is a lichenological gem, with abundant foliose species on the siliceous tombstones. Mark Powell, had visited it on his own earlier in the weekend recording 75 species, so was able to give us a guided tour of its highlights which included the first churchyard record

of *Verrucaria sphaerospora,* on an east-sloping sandstone windowsill. It appeared to be growing in zones where run-off from lead glazing strips had excluded other lichen species. This occurrence at Parkend is only the fourth British record. Other County firsts from Mark at this church were *Micarea curvata*, *Protoparmelia badia* and *Tephromela grumosa.*

We then went to All Saints, Newland, often called the Cathedral of the Forest (SO552095), which, once again had had a preliminary visit from Mark. This churchyard yielded 125 species, a fantastic score, making it certainly one of the richest churchyards in Gloucestershire. *Buellia badia* on a sandstone chest tomb was a first County record from Mark Powell. David Hill recorded *Physcia leptalea* on a young oak, a first Vice-county record, and the by-now almost familiar *Halecania viridescens* was there too.

And finally…

Among the non-lichen delights on offer over the weekend was the England v Wales game of the Rugby World Cup viewed in the pub's lounge (a Welsh try in the closing moments meant Wales won 28-25), Wild Boar, a 3-star Severn Bore, and a cloudless total lunar eclipse. All this lubricated with excellent local beer and cider.

Thanks to all participants for your good company, and particularly those that added so spectacularly to the known lichen flora of Gloucestershire.

Juliet Bailey
glos.lichens@gmail.com

	Brierley Tip	Crabtree Hill	Darkhill	Lydney Harbour	Moseley Green	New Fancy carpark	New Fancy Splash	Parkend	Penallt	Stock Wood Scowles	Speech House area	Speech House Oaks	Newland churchyard	Newnham churchyard	Parkend churchyard	Westbury churchyard
Acarospora fuscata													•	•	•	•
Acrocordia conoidea																•
Acrocordia salweyi			•										•	•		•
Agonimia tristicula				•												
Amandinea punctata		•	•	•	•				•				•			•
Anisomeridium biforme							•									
Anisomeridium polypori							•			•						
Anisomeridium ranunculosporum												•				
Arthonia didyma							•					•				
Arthonia lapidicola																•
Arthonia punctiformis			•		•		•					•	•			

	Brierley Tip	Crabtree Hill	Darkhill	Lydney Harbour	Moseley Green	New Fancy carpark	New Fancy Splash	Parkend	Penallt	Stock Wood Scowles	Speech House area	Speech House Oaks	Newland churchyard	Newnham churchyard	Parkend churchyard	Westbury churchyard
Arthonia radiata		•	•		•		•		•	•		•	•	•	•	•
Arthonia spadicea			•		•							•				
Arthopyrenia analepta					•							•				
Arthopyrenia punctiformis					•		•						•			
Aspicilia caesiocinerea													•	•		•
Aspicilia calcarea													•	•		•
Aspicilia contorta subsp. *contorta*			•	•									•	•		•
Aspicilia contorta subsp. *hoffmanniana*			•										•			•
Aspicilia grisea																•
Bacidia fuscoviridis					•											
Bacidia viridifarinosa					•											
Belonia nidarosiensis													•			
Bilimbia sabuletorum													•			
Botryolepraria lesdainii			•							•						
Buellia aethalea			•										•	•	•	•
Buellia badia													•			
Buellia griseovirens													•	•		
Buellia ocellata													•	•	•	•
Calicium glaucellum					•							•				
Calicium salicinum										•						
Calicium viride												•				
Caloplaca arcis			•	•									•			•
Caloplaca aurantia			•										•	•		•
Caloplaca austrocitrina															•	•
Caloplaca ceracea				•												
Caloplaca cf. *ceracea*													•			
Caloplaca cerinella			•				•		•				•			
Caloplaca chlorina													•	•		•
Caloplaca citrina s. lat.																•
Caloplaca crenularia													•	•	•	•
Caloplaca crenulatella			•	•									•	•	•	•
Caloplaca dichroa													•	•		•

	Brierley Tip	Crabtree Hill	Darkhill	Lydney Harbour	Moseley Green	New Fancy carpark	New Fancy Splash	Parkend	Penallt	Stock Wood Scowles	Speech House area	Speech House Oaks	Newland churchyard	Newnham churchyard	Parkend churchyard	Westbury churchyard
Caloplaca flavescens			•	•									•	•	•	•
Caloplaca flavocitrina			•												•	•
Caloplaca flavovirescens													•			
Caloplaca holocarpa s. lat.			•	•												
Caloplaca holocarpa s. str.													•	•	•	•
Caloplaca limonia			•	•										•		•
Caloplaca cf. *maritima*														•		
Caloplaca oasis			•										•	•	•	•
Caloplaca saxicola														•		•
Caloplaca teicholyta														•		
Caloplaca ulcerosa										•						
Caloplaca variabilis																•
Candelaria concolor										•						
Candelariella aurella f. *aurella*			•										•	•	•	•
Candelariella medians f. *medians*																•
Candelariella reflexa		•			•		•		•			•	•			
Candelariella vitellina f. *vitellina*	•				•	•						•	•	•	•	•
Catillaria atomarioides													•	•	•	•
Catillaria chalybeia var. *chalybeia*	•		•										•	•	•	•
Catillaria fungoides										•						
Catillaria lenticularis			•													•
Catillaria nigroclavata							•					•				
Chaenotheca brunneola												•				
Chaenotheca ferruginea			•		•		•					•				
Chaenothecopsis pusilla												•				
Chrysothrix candelaris							•					•				
Cladonia chlorophaea s. lat.	•	•	•		•		•									
Cladonia coniocraea	•	•			•		•			•		•				
Cladonia digitata					•							•				
Cladonia diversa	•															
Cladonia fimbriata	•	•	•		•		•			•		•				
Cladonia floerkeana	•											•				

	Brierley Tip	Crabtree Hill	Darkhill	Lydney Harbour	Moseley Green	New Fancy carpark	New Fancy Splash	Parkend	Penallt	Stock Wood Scowles	Speech House area	Speech House Oaks	Newland churchyard	Newnham churchyard	Parkend churchyard	Westbury churchyard
Cladonia furcata subsp. *furcata*	•															
Cladonia macilenta												•				
Cladonia ochrochlora					•											
Cladonia parasitica					•							•				
Cladonia polydactyla var. *polydactyla*		•			•		•					•				
Cladonia portentosa					•											
Cladonia pyxidata							•									
Cladonia ramulosa	•	•			•					•		•				
Cladonia squamosa var. *squamosa*												•				
Cladonia squamosa var. *subsquamosa*	•											•				
Cladonia subulata	•				•							•				
Cliostomum griffithii					•											
Collema auriforme													•			
Collema crispum var. *crispum*			•										•	•		
Collema fuscovirens															•	
Collema tenax var. *tenax*			•													
Cresponea premnea			•									•				
Cyrtidula quercus		•			•							•				
Didymellopsis pulposi			•													
Dimerella pineti			•		•							•				
Diploicia canescens				•								•		•		•
Diplotomma alboatrum				•										•	•	•
Diplotomma hedinii			•													
Enterographa crassa										•		•				
Evernia prunastri	•	•	•		•		•	•	•			•	•		•	
Flavoparmelia caperata	•	•	•		•		•		•			•	•			
Fuscidea lightfootii	•	•			•		•	•	•			•	•			•
Graphis elegans									•			•				
Graphis scripta		•	•						•	•		•				
Halecania viridescens							•		•				•			
Hyperphyscia adglutinata										•				•		•

	Brierley Tip	Crabtree Hill	Darkhill	Lydney Harbour	Moseley Green	New Fancy carpark	New Fancy Splash	Parkend	Penallt	Stock Wood Scowles	Speech House area	Speech House Oaks	Newland churchyard	Newnham churchyard	Parkend churchyard	Westbury churchyard
Hypocenomyce scalaris					•											
Hypogymnia physodes	•	•			•		•	•	•			•	•		•	
Hypogymnia tubulosa					•		•		•			•			•	
Hypotrachyna afrorevoluta	•	•	•		•		•		•			•			•	
Hypotrachyna revoluta s. lat.													•	•		
Hypotrachyna revoluta s. str.		•	•		•		•		•			•			•	
Illosporiopsis christiansenii												•				
Jamesiella anastomosans					•							•	•	•		
Lecanactis abietina					•							•				
Lecania cyrtella			•				•		•				•			
Lecania erysibe s. lat.															•	
Lecania erysibe s. str.													•	•		
Lecania cf. *hutchinsiae*			•													
Lecania hutchinsiae													•	•		•
Lecania inundata			•	•									•			•
Lecania naegelii					•		•		•	•			•			
Lecania rabenhorstii																•
Lecanora albescens			•	•									•	•	•	•
Lecanora antiqua													•	•		•
Lecanora argentata					•								•			
Lecanora barkmaniana													•	•		
Lecanora campestris subsp. *campestris*			•	•					•				•	•	•	•
Lecanora carpinea													•			•
Lecanora chlarotera	•	•	•		•		•	•	•	•		•	•	•	•	•
Lecanora compallens			•		•					•		•				
Lecanora conizaeoides forma *conizaeoides*	•															
Lecanora crenulata														•		•
Lecanora dispersa			•	•									•	•	•	•
Lecanora expallens			•		•		•		•			•				
Lecanora gangaleoides						•						•			•	
Lecanora hagenii									•	•		•	•			

	Brierley Tip	Crabtree Hill	Darkhill	Lydney Harbour	Moseley Green	New Fancy carpark	New Fancy Splash	Parkend	Penallt	Stock Wood Scowles	Speech House area	Speech House Oaks	Newland churchyard	Newnham churchyard	Parkend churchyard	Westbury churchyard
Lecanora muralis				•		•			•				•	•		•
Lecanora orosthea													•	•	•	•
Lecanora polytropa	•		•			•							•	•	•	•
Lecanora pulicaris					•								•			
Lecanora rupicola var. *rupicola*													•			•
Lecanora saligna					•											
Lecanora soralifera													•	•	•	
Lecanora sulphurea													•	•	•	•
Lecanora symmicta		•			•							•	•			
Lecidea fuscoatra s. lat.													•			
Lecidea fuscoatra s. str.														•	•	•
Lecidea grisella	•												•	•	•	•
Lecidea lithophila			•													
Lecidella elaeochroma forma *elaeochroma*		•	•		•		•		•	•		•	•	•	•	•
Lecidella scabra			•		•	•						•	•	•	•	•
Lecidella stigmatea			•										•	•	•	•
Lepraria ecorticata					•											
Lepraria incana s. lat.							•					•		•		•
Lepraria incana s. str.			•		•		•					•	•		•	
Lepraria lobificans					•							•				
Lepraria vouauxii													•			
Leptogium teretiusculum													•			
Lichenomphalia hudsoniana												•				
Llimonaea sorediata														•		
Megalaria pulverea											•					
Melanelixia fuliginosa					•								•	•	•	•
Melanelixia glabratula	•	•			•		•					•	•		•	
Melanelixia subaurifera			•		•		•	•	•			•	•	•		
Melanohalea elegantula							•						•			
Micarea curvata															•	
Micarea denigrata					•											
Micarea melaena												•				

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Micarea misella					•											
Micarea prasina s. lat.												•				
Mycoblastus caesius (cf.)											•					
Myriospora rufescens					•											
Myriospora smaragdula	•														•	
Normandina acroglypta										•						
Normandina pulchella							•									
Ochrolechia androgyna	•				•							•				
Ochrolechia parella												•	•		•	•
Ochrolechia tartarea												•				
Opegrapha atra					•							•				
Opegrapha gyrocarpa			•					•					•	•	•	•
Opegrapha herbarum												•				
Opegrapha mougeotii													•			
Opegrapha ochrocheila										•		•				
Opegrapha rufescens										•					•	
Opegrapha varia										•						
Opegrapha vermicellifera												•				
Opegrapha vulgata										•		•				
Opegrapha zonata					•											
Parmelia ernstiae												•				
Parmelia saxatilis	•	•			•							•	•	•	•	
Parmelia sulcata			•		•		•		•			•	•	•	•	•
Parmeliopsis ambigua					•											
Parmotrema perlatum	•	•	•		•		•	•	•			•	•		•	
Peltigera didactyla										•						
Peltigera hymenina	•															
Pertusaria albescens var. *corallina*				•									•			
Pertusaria amara forma *amara*					•							•	•		•	•
Pertusaria coccodes												•				
Pertusaria corallina					•											
Pertusaria flavida												•				

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Pertusaria hemisphaerica												•				
Pertusaria hymenea										•		•				
Pertusaria lactescens													•	•	•	•
Pertusaria multipuncta					•											
Pertusaria pertusa												•				
Pertusaria pseudocorallina													•			
Phaeographis smithii												•				
Phaeophyscia orbicularis		•		•						•			•	•	•	•
Phlyctis argena			•		•		•			•		•	•	•		
Physcia adscendens			•		•							•	•	•	•	•
Physcia aipolia		•	•		•			•	•			•				
Physcia caesia									•				•			
Physcia dubia													•		•	
Physcia leptalea													•			
Physcia tenella		•	•	•	•		•		•	•		•	•	•	•	•
Physconia grisea													•			
Placopyrenium fuscellum			•										•	•		•
Placynthiella dasaea					•											
Placynthiella icmalea		•			•							•				
Platismatia glauca		•			•		•	•	•			•				
Polysporina simplex			•										•	•	•	•
Polysporina subfuscescens														•		•
Porina aenea					•		•			•						
Porina borreri										•		•				
Porina chlorotica forma *chlorotica*																•
Porina leptalea												•				
Porpidia cinereoatra					•											
Porpidia crustulata	•		•													
Porpidia platycarpoides			•		•											
Porpidia soredizodes	•												•		•	
Porpidia tuberculosa	•		•		•	•		•					•	•	•	•
Protoblastenia rupestris			•	•									•	•	•	•

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Protoparmelia badia															•	
Psilolechia leprosa																•
Psilolechia lucida													•	•	•	•
Punctelia jeckeri		•	•		•							•	•	•		
Punctelia subrudecta s. str.		•	•		•		•	•	•			•	•	•	•	
Pyrrhospora quernea					•							•		•	•	•
Ramalina farinacea		•	•		•		•		•			•	•			
Ramalina fastigiata	•		•		•								•			•
Rhizocarpon geographicum	•													•		•
Rhizocarpon oederi	•															
Rhizocarpon reductum	•		•										•	•	•	•
Rhizocarpon umbilicatum			•													
Rinodina oleae													•			•
Rinodina sophodes													•			
Rinodina teichophila													•	•		•
Sarcogyne regularis			•	•											•	•
Schismatomma decolorans												•				
Schismatomma niveum												•				
Scoliciosporum umbrinum						•			•				•	•	•	•
Solenopsora candicans														•		•
Stenocybe septata												•				
Stereocaulon dactylophyllum var. *dactylophyllum*	•															
Stereocaulon cf. *pileatum*														•		
Stereocaulon vesuvianum var. *nodulosum*	•															
Strigula taylorii												•				
Syzygospora physciacearum												•				
Tephromela atra var. *atra*				•									•	•	•	•
Tephromela grumosa															•	
Thelotrema lepadinum												•				
Toninia aromatica				•									•	•		•
Trapelia coarctata	•												•		•	

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Trapelia glebulosa	•		•		•									•	•	
Trapelia obtegens													•			
Trapelia placodioides			•										•	•	•	•
Trapeliopsis flexuosa		•			•							•		•		
Trapeliopsis gelatinosa										•						
Trapeliopsis granulosa		•			•							•				
Trapeliopsis pseudogranulosa												•				
Usnea cornuta					•							•				
Usnea subfloridana					•				•			•				
Usnea wasmuthii					•											
Verrucaria calciseda													•			•
Verrucaria elaeina					•				•	•				•		•
Verrucaria hochstetteri			•													•
Verrucaria macrostoma forma *furfuracea*														•		
Verrucaria macrostoma forma *macrostoma*													•	•		•
Verrucaria muralis			•													
Verrucaria nigrescens forma *nigrescens*			•										•	•	•	•
Verrucaria nigrescens forma *tectorum*													•	•	•	•
Verrucaria obfuscans																•
Verrucaria ochrostoma														•		
Verrucaria sphaerospora															•	
Verrucaria viridula			•							•			•	•		
Violella fucata							•									
Vouauxiomyces truncatus												•				
Xanthoparmelia mougeotii	•												•	•	•	•
Xanthoparmelia verruculifera													•			•
Xanthoria calcicola													•			•
Xanthoria candelaria s. lat.															•	
Xanthoria parietina	•		•	•	•		•		•	•		•	•	•	•	•
Xanthoria polycarpa		•											•			•
Xanthoria ucrainica		•														

Four churchyards in the Forest of Dean

Four churchyards were visited during the BLS meeting in the Forest of Dean, Gloucestershire, in September 2015. The surveys were reasonably thorough without being exhaustive; each visit was between two and four hours. Here are some notes on the more interesting species encountered.

St Paul's, Parkend

The church of St Paul at Parkend yielded the fourth British record (first churchyard record) of *Verrucaria sphaerospora,* on an east-sloping sandstone windowsill. It appeared to be growing in zones where run-off from lead glazing strips had excluded other lichen species. The first report was in 2012 from a slate roof in Somerset (where it also seemed to be best-developed where the slates were affected by run-off from lead flashings). Steve Chambers has since reported two earlier occurrences on Cambrian shales in Merionethshire. St Paul's church is built of sandstone blocks and many of these support extensive crusts of *Polysporina*. Some individuals have conspicuous gyrose fruits and inconspicuous thalli and would conventionally be recorded as *P. simplex*. Others have a well-developed brown thallus and some lichenologists would record these as *P. subfuscescens* (*P. lapponica*) which is a lichenicolous species on crustose lichens. On the walls of St Paul's church it is possible to find every degree of development from one extreme to the other. I speculate that such populations simply represent the variability of *P. simplex*. If two species are involved we will have the problem of deciding how to separate them. Knudsen & Kocourková (2008) state the following: "Since it is impossible to distinguish *P. subfuscescens* and *P. simplex* using apothecial and ascospore measurements, overt signs of parasitism are used primarily to distinguish them." At Parkend, as usually elsewhere, I could see no evidence of parasitism, merely *Polysporina*-type fruits associated with varying thicknesses of thallus. This is one of the many issues that remain to be properly resolved in the recording of churchyard lichens.

Another notable discovery was *Micarea curvata* which was new to England when discovered on a gravestone at Silsoe in Bedfordshire in 2011 (BJC & MP). Subsequently it has been found to be occasionally present on sandstone headstones in the Home Counties and is likely to be overlooked elsewhere. It is unlikely that this species will ever be reliably recorded in the field since poorly formed *Scoliciosporum umbrinum* has an almost identical appearance. I often find candidates for *M. curvata* by looking out for patches bare of other lichens. Scanning with a hand lens reveals tiny medium-brown convex fruits which need collecting for confirmation. The thallus of *M. curvata* is invariably poorly formed and the fruits usually grow on what appears to be a sparse algal type growth.

A much more spectacular feature of some of the sandstone gravestones at Parkend are the extensive colonies of *Tephromela grumosa*. When recording lichens we frequently encounter the problem of what level of confidence to place on our identifications. This is the first time that I have encountered *T. grumosa*, it is new to the Vice-county and nobody else who saw it knew the species well enough to provide a convincing confirmation. Nevertheless, I decided to record it. *Porpidia tuberculosa*,

somewhat similar in appearance, was conveniently growing alongside and proved that *T. grumosa* is a more exuberant species. It also provided an opportunity to compare the K+ yellow reaction of the *Tephromela* with the K- reaction of *P. tuberculosa*. The thalli in both species darken when the reagent is applied and this is an occasion when the reagent needs blotting up onto white tissue to properly observe the presence or absence of a reaction. *Lecanora pannonica* is the most likely species to be confused with *T. grumosa* and I have the advantage of familiarity with good Midlands' material of that species which has a neater appearance with more delimited soralia. *Tephromela atra* appears to be much more common than *Lecanora gangaleoides* in the Forest of Dean churchyards; indeed the only thallus of the latter was found on the vertical face of one of the *T. grumosa* stones where it was confirmed by a field section proving its pale hypothecium and by the presence of orange pigment in the lower thallus.

St Peter & St Paul, Westbury on Severn

Westbury on Severn has a very distinctive church, the tower separate from the main building and topped with a large, shingle-tiled spire. Our churchyard visits seemed to clock up two new county records at each site and at Westbury we found *Verrucaria obfuscans* on a north-sloping windowsill and *Aspicilia grisea* on an old chest tomb. *V. obfuscans* was added to the British list in February 2015 and it is rather remarkable how widely it occurs and how it was previously completely overlooked. The first British record was from an iron-stained limestone windowsill on Great Milton church in Oxfordshire. At Westbury it grows in a similar situation, on a limestone windowsill on the north side of the church, dominating a surface which appears to have been denuded of other lichens by metal run-off. *V. obfuscans* is not an obligate metallophyte and elsewhere in England it has been found on limestone headstones and coped tombs.

St Peter, Newnham

The Eastern lichenologists felt slightly more at home at Newnham due to the use of limestone in the building of the church of St Peter. A familiar friend of Eastern recorders (*Verrucaria ochrostoma*) was found in some quantity on the church and also on a limestone headstone in the yard. *V. ochrostoma* has been almost completely overlooked by British lichenologists despite being a common colonist of calcareous substrata. It is too soon to know its true distribution but I suspect it might have a southern and eastern bias similar to that of *Caloplaca teicholyta*.

The south-east corner of the church building has quite extensive patches of a *Caloplaca* which we suspect may be *C. maritima*. In this case we have not confirmed its identity. If one were more familiar with the region it would be possible to get to know how common *C. maritima* is in the Severn Estuary and to get a feel for its ecology (and what it looks like when growing on coarse-textured limestone). None of the recorders present were on their local patch and sometimes it is wise to have a cautious approach to recording when on unfamiliar ground.

On the north wall (near the north-west corner) are a few patches of a pink sorediate lichen which has a superficial similarity to *Dirina massiliensis* (and shares with that species *Trentepohlia* as its photobiont and a C+ red reaction). This lichen, *Llimonia sorediata*, differs from *D. massiliensis* by the deeper pink colour, more finely farinose soredia and the presence of a black prothallus. I spent a bit of time going backwards

and forwards from the *L. sorediata* to the extensive colonies of *Opegrapha gyrocarpa* on chest tombs to convince myself of the differences (*O. gyrocarpa* is another sorediate species containing *Trentepohlia* and with a C+ red reaction; its soralia are more delimited).

All Saints, Newland

Newland church and yard produced the longest list (115) boosted by species recorded on a couple of old wooden bench seats and on trees. *Buellia badia* on a chest tomb and *Halecania viridescens* on oak branches are new to Gloucestershire. *H. viridescens* has exploded across Eastern England in the past three years or so and is fast becoming a ubiquitous background sorediate 'weed' of nutrient-rich bark.

The chest tombs at Newland provided a useful comparison between *Pertusaria lactescens* and *P. pseudocorallina*, both K+ y to r, and the difference between them not quite as distinct as one might have hoped. The isidia of *P. pseudocorallina* are peg-like when well-developed with brown tips. The superficial isidia-like granules of *P. lactescens* are underlain by looser sorediose granules. The difference is quite subtle and there was some discussion before everyone was agreed that both species were present.

The north wall of the church has some patches of a saxicolous *Opegrapha* with lirellae in loose clusters. It would be easy to assume this to be *O. calcarea* but closer inspection reveals exposed discs and white pruina and microscopy confirms this as *O. mougeotii*.

The genus *Lecania* is not very well represented in the churchyards we visited but three species of this troublesome genus were noted at Newland. *L. erysibe* with its minutely blastidiate (fluffy) thallus and tiny blastidia-rimmed fruits was present on the top of a limestone headstone. *L. inundata* (which has been much confused with *L. erysibe*) was nicely developed on paving near the war memorial – the thallus comprising little nodules and the apothecial margins appearing crenulated due to the presence of similar nodules. *L. hutchinsiae* (on the north wall and tower of the church) presents even greater taxonomic problems. The 2009 'Flora' implies that *L. hutchinsiae* is a strictly non-calcareous species but it probably has a wider ecology than that. Populations often contain individuals with varying appearance, differing mainly in the development and pruinosity of the thallus. Are we dealing with only one taxon, and is it really *L. hutchinsiae*? At the moment I am taking a pragmatic approach and using this name for material (often on the north side of churches) with convex, tuberculate fruits, thin or immersed thallus and narrow spores. The separation from *L. sylvestris* is an issue that few British lichenologists appear to have given any thought. The saxicolous *Lecania* species really require attention including an examination of type specimens. Several species are common in churchyards but the recording of them appears to be inconsistent.

Reference

Knudsen, K. & Kocourková, J. (2008). A study of lichenicolous species of *Polysporina* (Acarosporaceae). *Mycotaxon* **105:** 149-164.

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British Lichen Society Field Meetings & Workshops Programme 2016/17

Field Meetings Secretary: Steve Price, Woodlands, Combs Road, Combs, High Peak, Derbyshire SK23 9UP
email *fieldmeetings@britishlichensociety.org.uk*

*note: **All members** of whatever level of experience are welcomed on **all BLS Field Meetings**. No member should feel inhibited from attending by the fact that some meetings may be associated with BLS Council meetings or the AGM. Workshops, on the other hand, may be aimed at members who have some level of experience. If so this fact will be specified in the meeting notice.*

BLS AUTUMN MEETING 2016 – North York Moors

Monday 26th to Friday 30th September 2016
local organisers – Peter O'Neill and Mark Seaward

The North York Moors offers a range of wooded valleys, moorland and coast. Churchyards aside the area is in general lichenologically under-recorded. This meeting gives us an opportunity to improve this situation.

Meeting Base

The meeting will be residential at Cober Hill, Cloughton, Scarborough, North Yorkshire YO13 0AR; tel: 01723 870310; email: *enquiries@coberhill.co.uk*. See *www.coberhill.co.uk* to have a look at the accommodation and facilities.

Accommodation and costs

Accommodation for 20 people in single and twin en-suite rooms has been reserved and a deposit paid by the BLS. These bed spaces were being held for us until **mid-March 2016** (6 months before the meeting date). Subject to availability rooms will be able to be booked after this date.

Full board accommodation (incl. dinner, breakfast and packed lunch) for the four nights is £256 per person (inc. VAT at 20%). The group package is for the 4 nights and there is no reduction for a shorter stay. The earliest check-in time for rooms is 14.30. Dinner is at 19.00.

Booking

Members wishing to join the meeting should contact Cober Hill to book directly with them. Say you are with The British Lichen Society to obtain group rate of £256. Cancellation of places less than 16 weeks before the meeting will incur extra charges. Please inform Steve Price if you make a late booking with Cober Hill after publication of this Bulletin.

Please advise of any dietary needs and also if you do not need dinner on the evening of arrival. Note there can be no reduction in the cost if you do not take dinner that night.

Microscope work
A meeting room has been reserved for the duration of the meeting for microscope work and presentations. The BLS microscopes will be available for communal use. If possible please bring your own consumables (microslides/cover slips/razor blades/chemicals).

Timetable
Meet for dinner on Monday 26th at 19.00. We vacate the accommodation first thing on the Friday 30th. Further details of the programme will be sent out to attendees nearer the time of the meeting.

BLS AGM 2017 Field Outing – London

Sunday 22nd January 2017

A one day field outing, somewhere in the London area, will follow the AGM which is due to be held at the Natural History Museum, London.
Further details to follow.

BLS Workshop - Royal Botanic Gardens, Kew

Lichen Imaging

Friday 17th (evening) to Sunday 19th February 2017
organiser: Paul Cannon

A weekend workshop on the photographing and imaging of lichens will be held at the Royal Botanic Gardens, Kew. Topics to be covered will include macro photography, for both field-work and lab-work, and image stacking and manipulation techniques. Some assistance with microscope applications will also be provided.

The minimum equipment needed is a digital camera - SLR or compact. A camera with close focusing and manual focusing is preferred, but the event will help you to get the most out of any type of camera (even a smartphone). Do not buy a camera specially for the meeting (or at least consult the organiser for advice beforehand). It's better to work with a camera that you are familiar with.

The number of places on the workshop will be limited. Cost £30 per person. Attendees should book their place with the Field Meetings Secretary, Steve Price, email: *fieldmeetings@britishlichensociety.org.uk* or by post to Woodlands, Combs Road,

Combs, High Peak SK23 9UP and after booking secure your place by sending him £30 per person, cheques payable to 'The British Lichen Society' (not 'BLS' please).
Further details to follow.

BLS SPRING FIELD MEETING/WORKSHOP - Malham Tarn Field Centre

Lichens of limestone habitats

Tuesday 18th to Tuesday 25th April 2017

organisers/tutors: Brian Coppins and Allan Pentecost

This meeting will study the superb limestone habitats around Malham and will have extra laboratory/tutorial sessions built in to the timetable. The field outings will each day focus on a particular lichen habitat/group of lichens and there will be adequate time back at base for microscope work and discussion. This meeting will also be an opportunity for attendees to bring along and share their own limestone lichen puzzles and problems.

Meeting Base

Field Studies Council, Malham Tarn Field Centre, Settle, N Yorks, BD24 9PU (tel 01729 830331); see *http://www.field-studies-council.org/centres/malhamtarn.aspx*

Accommodation and costs

20 bed spaces have been reserved, more spaces may be available if this need is known early. The cost for the week, including the use of the laboratory work room is £249. This is for full board accommodation (breakfast, packed lunch and evening meal). The price quoted is based on shared accommodation in a mix of twin, triple or bunk bedded rooms.

A limited number of sole occupancy rooms may be available for the sole occupancy supplement of £30 per person. Some rooms are en-suite but not all. Improvements to the accommodation are underway and should be mostly completed by the time of the meeting. Non-resident attendees can have an evening meal and daily refreshments (tea/coffee/cake) and this is £70 for the week.

Booking

Attendees should book their rooms with the Field Meetings Secretary, Steve Price, email: *fieldmeetings@britishlichensociety.org.uk* or by post to Woodlands, Combs Road, Combs, High Peak SK23 9UP and send him a £35 deposit per person, cheques payable to 'The British Lichen Society' (not 'BLS' please).

Microscope Work

A laboratory/meeting room has been booked for our sole use throughout the week. Bring your own microscopes if you can. The Centre has some stereo and compound microscopes which we are welcome to use but only a few. The BLS stereo and

compound microscope will also be available for communal use. If possible please bring your own consumables (microslides/cover slips/razor blades/chemicals).

Timetable

The meeting will run from the evening of Tuesday 18th April when we will gather after dinner for an introductory meeting. We vacate the accommodation first thing on the Tuesday 25th. Further details of the programme will be sent out to attendees nearer the time of the meeting.

Relevant maps

OS Landranger 1:50,000 - No. 98 - Wensleydale & Upper Wharfedale
OS Explorer Leisure 1:25,000 - OL2 - Yorkshire Dales - Southern & Western
(OS Explorer Leisure 1:25,000 - OL30 - Yorkshire Dales - Northern & Central)
British Geological Survey 1:50,000 - Sheet 60 - Settle

BLS SUMMER MEETING 2017 – Öland, Sweden

Monday 12th to Sunday 18th June 2017

Organisers – Lars Borg and Ulf Arup

The Great Alvar on the island of Öland in south-east Sweden supports extensive areas of superb calcareous soil-crust and limestone pavement communities. The siliceous boulders are also notable. At 26,000 ha this is one of the largest areas of alvar in the world. Other ecosystems to visit include rich deciduous forests and grazed woodland, for example the big oak forest Ottenbylund in the south of Öland (which, incidentally, is the biggest bird watching station in Sweden), hazel forests, boreal pine and fir forests. We also plan to visit boreal needle forests on the mainland including a lichen pine forest with a lot of *Cladonia* species such as *Cladonia stellaris.* During the meeting Ulf Arup will give a presentation to the group on his ongoing research on *Lecanora*.

On the Alvar of Öland there may develop a typical soil crust society with *Cladonia symphycarpa*, *Collema tenax*, *Fulgensia fulgens*, *F. bracteata*, *Psora decipiens*, *Squamarina lentigera*, *Toninia sedifolia* and usually *Verrucaria nigrescens* on the small pebbles. Other typical soil lichens include *Cladonia macroceras*, *Flavocetraria nivalis*, *F. cucullata*, *Romjularia lurida*, and *Thamnolia vermicularis*. More rare species are *Leptogium schraderi* and *Vulpicida tubulosus.* On limestone pavement *Aspicila calcarea*, *A. contorta*, *Placynthium nigrum*, *Protoblastenia rupestris*, *Caloplaca glomerata*, *C. dichroa*, *Collema cristatum*, *C. fuscovirens*, *C. polycarpon* and *Squamarina cartilaginea* thrives. *Clauzadea immersa* usually occurs around deep crevices. Rare species include *Acarospora cervina, Squamarina gypsacea*, *Psora vallesiaca*, *Protoblastenia cyclospora*, *Aspicilia coronata* and *Caloplaca dolomiticola*.

Meeting Base

The meeting will be residential at Allégården at Kastlösa. Allégården is located between Öland Bridge and Ottenby, about 25 km south of Öland bridge, 50 m from Route 136, next to Kastlösa church. Address: Allégården Kastlösa, Kastlösa bygata 2,

386 61 Mörbylånga, Sweden. Telephone: +46 (0) 485-421 75; mobile: +46 (0) 72-302 21 75; email: *info@kastlosa.se*. See *http://www.kastlosa.se/en/* to look at the facilities.

Accommodation and costs

There is a variety of room types available.

Ölandsgården: Hotel rooms with shower, toilet and TV. Twin rooms. Price 795 SEK /night for one person, 985 SEK/night for two persons. Breakfast included. It is possible to have 3 persons sharing - slightly cheaper.

Norrgården: Twin rooms with toilet. Shower and TV separately. Price 550 SEK/night for one person. 750 SEK/night for two persons. Breakfast included. It is possible to have 3 persons sharing - slightly cheaper.

Hostel rooms with toilet 250SEK/night.(Three beds in every room). Used as single room 400 SEK/night. Breakfast is not included. It is possible to make breakfast in a communal kitchen. Free Wi Fi in all rooms and a pool in the garden.

These bed spaces are being held for us until **1st of March 2017.** Subject to availability rooms will be able to be booked after this date. It is possible to get dinner (two dishes 195 SEK) and packed lunch. Advanced notice is needed to take dinner and packed lunch. Evening dinner needs to be ordered by 12 noon. Also advise at the time of booking regarding any special dietary needs. *Note: (£ 1 = 11,57 SEK on 3 April 2016.)*

Bookings and payment

A preliminary booking has been made for accommodation. Attendees should make their own reservations directly with Allégården, mentioning that the booking is part of the British Lichen Society group.

Please book by email. It is not possible to book by the Allégården website because the rooms will appear as booked. This is because they have been booked, for the BLS! Please inform Steve Price, the Field Meetings Secretary (email: fieldmeetings@britishlichensociety.org.uk) when a room booking has been made and when travel plans have been made inform him of your flight times and when you expect to arrive at Kalmar Station (see ***Travel*** below).

Payment for the accommodation is to be made by individuals directly to Allégården. Payment can be made by credit card.

Travel

The most convenient transport from the UK is to fly to Kastrup, Copenhagen. From the railway station inside Kastrup there are direct trains once per hour to Kalmar. Rail tickets can be purchased at the station on the day of travel. Train times can be viewed on the website *http://www.thetrainline-europe.com* and on other websites.

Attendees will be picked-up by minibus at Kalmar railway station. Pick-up times at Kalmar are yet to be decided. This will be determined by the attendees arrival time at Kalmar. Attendees should endeavour to arrive at Kalmar railway station before 18.00.

Having vacated the accommodation first thing on the Sunday 18th attendees can be returned to Kalmar railway station. More precise arrangements will be made nearer the time.

The minibus(es) will be available for transport during the meeting. Attendees using the mini-bus(es) will be expected to share the hire costs and fuel. As a guide one minibus (9 persons) for one week costs approx. 6500 SEK or 700 SEK/person + the cost of fuel. This depends on full occupancy of each minibus.

Microscope and meeting room

A meeting room has been reserved for the duration of the meeting for presentations and microscope work. Some microscopes will be provided for our use. Some chemicals (C & K) will be available for attendees to fill their field-test bottles.

Further details of the programme will be sent out to attendees nearer the time of the meeting.

BLS AUTUMN MEETING 2017 – Epping Forest (advanced notice)

A weekend meeting in the latter half of September

local organiser – John Skinner

When known the exact date will be published on the BLS website.
Full details will appear in the Winter 2016 BLS Bulletin.

BLS Field Meeting - Isle of Wight - Friday 15th to Friday 22th April 2016

MEETING CANCELLED

Eleven days before the above meeting was due to start Warner Leisure Hotels cancelled our group booking for accommodation at the Norton Grange Coastal Village, Yarmouth, Isle of Wight. This booking had been made and confirmed 1 year earlier in April 2015. The BLS made efforts to find suitable alternative accommodation but at such short notice it proved impossible. Consequently there was no option but to cancel the meeting. Here follows a quote from the Warner Leisure Hotels emailed letter of 4th April 2016 to confirm a phone call made earlier that day to the Field Meetings Secretary from the Bourne Leisure Headquarters call centre.

"*Further to our recent discussion from Norton Grange Coastal Village, your Group booking for the 15th April 2016 has been cancelled, this is due to an unidentified clash in our reservation system, where 4 nights of your booking clashed with a sole occupied break on the 18th April 2016."*

Les and Sheila Street with the assistance of Colin Pope had researched and organised an extremely interesting programme of field visits and presentations. The BLS thanks them for their not inconsiderable hard work. It is hoped that this will not be wasted and that a field meeting can be arranged on the Isle of Wight in the not too distant future.

Advance notice of the BLS Calendar 2017

Winner of the Portrait category: *Parella Island* by Michael Dewey

The BLS photography completion held in 2014 was well supported with over 140 entries. It was judged at the AGM in January 2015 and the winning and highly commended entries were published in the BLS Bulletin no.116 in the summer of 2015. Timing issues meant that producing a calendar for 2016 was not possible, however we are producing one for 2017. The calendar is an A4 wired flip over design with a hook. It will contain the winning photographs from each section i.e. Portrait, Lichens in the Landscape and Abstract as well as some of the "runners up".

The cost is £9 including postage and packing for sending to UK addresses and £12 for addresses overseas.

If you wish to order a calendar:
To pay by cheque, please send your name and address along with payment (cheques payable to British Lichen Society *not 'BLS'*) to: BLS Membership Services Team, Royal Society of Biology, Charles Darwin House, 12 Roger Street, London, WC1N 2JU
Or to pay by card, telephone the BLS Membership Services Team on 0203 793 7852.

ORDERS NEED TO BE RECEIVED BY 1st SEPTEMBER 2016

Minutes of the ANNUAL GENERAL MEETING

Newcastle University - Saturday 16th January 2016

In attendance: Judith Allinson, Rod Ashwell, Juliet Bailey, Ishpi Blatchley, Kristine Bogomazova, Richard Brinklow, Barbara Brown, Dennis Brown, Paul Cannon, Katherine Challis, Geoffrey Chaytor, Peter Crittenden, Heidi Döring, John Douglass, Vince Giavarini, David Hill, Bob Hodgson, Les Knight, Sue Knight, Peter Lambley, Doug McCutcheon, Mariagrazia Morando, Fay Newbery, Peter O'Neill, Ivan Pedley, Allan Pentecost, Mark Powell, Steve Price, William Purvis, Maxine Putnam, David Richardson, Neil Sanderson, Peter Scholz, Mark Seaward, Paula Shipway, Janet Simkin, John Skinner, Frances Stoakley, Holger Thüs, Catherine Tregaskes, Tim Wilkins, Vanessa Winchester, Chris Young

Apologies for absence: Andy Acton, Lesley Balfe, Brian Coppins, Sandy Coppins, Simon Davey, Frank Dobson, Sally Eaton, Bryan Edwards, Dave Genney, Theresa Greenaway, David Hawksworth, Mary Hickmott, Barbara Hilton, Chris Hitch, Sally Hutt, Jack Laundon, Tracey Lovering, Sheila Quin, Eluned Smith, Pat Wolseley, Ray Woods

The President opened proceedings by welcoming everyone to the School of Agriculture, Food and Rural Development, on behalf of the Head of School, and thanking all those who had helped today and with the reception and herbarium display at the Hancock Museum on the previous evening.

1. Communications

Deceased members were reported as: Geoff Bird (Kent), Dr Oliver Rackham (Cambridge), Dr Vagan Alstrup (Denmark), Uwe de Bryn (Germany), Prof. Hildur Krog (Norway), Mr L-E Muhr (Sweden), Dr W.J. Ballantine (New Zealand), Suzanne Clark (Australia). We also lost a former member, Rev. Gordon Graham (Co. Durham).

2. Minutes of the Annual General Meeting held at the Royal Botanic Gardens, Kew, 11th January 2015

The Minutes of the 2015 AGM were accepted as a true and accurate record.

3. Matters arising

None.

4. Reports of Officers and Committee Chairs

4.1 President - *Janet Simkin*

It is two years since you elected me as your President, and so my term of office comes to an end at this meeting. There is a lot happening in the society at the moment, and it has been an interesting time to be at the centre of things.

It has been also been a little frustrating. I was hoping to be able to focus on projects that would encourage recording and our less experienced lichenologists, and on developing our links with other organisations and recording schemes, but instead I got caught up in a succession of administrative issues. They couldn't be ignored and I would like to think that I am leaving that aspect of the society in a stronger position than it was before.

My interest in recording has not been forgotten, however, and Council have agreed that we should now relaunch the Lichen Recording Scheme that was mentioned last year. That will be my main focus for the next year or two, and I hope it is something you will all want to get involved in.

Council has met three times since the last AGM. The agenda for these meetings is always long and we have to find time for a full debate of significant issues, but we prefer to do that rather than meet more often. These meetings have been very productive, and I would like to take this opportunity to thank all the members of Council for their support and, on your behalf, for their work for the society over the last year.

The busiest committee by far this year has been the Finance committee, chaired by John Skinner and involving Heidi Döring and myself. Apart from all the usual financial issues, including preparing the annual accounts, they have been responsible for the transfer of our membership administration to the Royal Society of Biology (RSB). That has been done to reduce what had become an unmanageable workload for the Membership Secretary, and to improve the service we could provide to our members. It was, and still is, a major project, and although in the end it will save us work it has taken dedication and a great deal of effort on the part of John and especially Heidi to get us this far. There have been teething problems but we are working hard to get them resolved as soon as possible, and I'm sure we are all most grateful to John and Heidi for all their efforts on our behalf.

The Conservation Committee, led by Bryan Edwards, do much of their work by email and have been active in responding to conservation issues and requests for support from the national agencies. They now have three sub-committees, for England, Scotland, and Wales, and this more regional focus should enable them to work more effectively with the appropriate national agencies. Another sub-committee of Conservation is the Churchyards group, which continues to go from strength to strength.

The Data committee, chaired by Les Knight, has been concentrating on building on the work we have already done on the BLS database and on developing computerised keys, and they are making real progress.

The Education and Promotions Committee, has been very active under Sally Eaton's leadership, covering everything from promotional materials to training projects such as Making the Small Things Count. Sally has been assisted by Fay Newbery, and Fay will be taking over as Sally is standing down as chair of EPC at this meeting.

Finally, the Members Services Committee, chaired by David Hill. They have been working on some difficult issues, such as insurance and risk assessment, as well as considering how we can make more effective use of resources such as library and

herbarium. It has always been rather difficult to define the role of MSC and this now needs to be reviewed in the light of other changes in the society. David Hill has decided to stand down as chair at this meeting but Heidi has generously offered to take this on for a year to see us through the review. David's resignation from this role means that he will be leaving Council after many years of service, and we will miss him.

Other important aspects of the society's work, such as The Lichenologist (Senior Editor Peter Crittenden), the Bulletin (edited by Paul Cannon), and our field meetings programme (run by Steve Price), continue to go from strength to strength. These are very much the public face of the society and we are grateful to all of them for their efforts.

I wish I could say the same for the website, which needs further development and some urgent technical work, but that is one of my responsibilities and I haven't been able to spend the time on it that it needed over the last couple of years. We are trying to make new arrangements for the website and hope soon to make it mobile and tablet friendly, and to integrate it with Mike Sutcliffe's British Lichens website.

A recurrent theme in this report, and one that has been coming up throughout my term as President, is workload. We are all busy people and many of us feel that we can't meet all the demands made on us. The work needed to run a national society and charity in the 21st century is increasing all the time, but the pool of willing volunteers, and the amount of time they can each commit, seems to be decreasing year on year. There are other things that, as a Society, we would like to be doing, such as revising the Flora, developing the website, surveys of under-recorded habitats, novices' meetings and research, that simply don't get done because at present we have no-one to do them. If we ask too much of people they will just walk away and do something else.

This is now the biggest risk the society faces. If we are to continue doing all the things we do now, and make a good job of the things we want to do in the future, we either need more people to get involved and share the work of the society or we will have to follow the path taken by the larger societies and employ staff to do that work for us. Whether we could support that financially is debatable, given the size of our membership, and we would first have to change our legal structure to become a charitable incorporated organisation.

The BLS is remarkable among the national societies for the variety of its activities and how much it gets done, and that is due entirely to the commitment and expertise of all those involved. It has been a real pleasure to serve as your President, but now I am looking forward to continuing in a different role and to having time for other things.

Questions/Comments from the floor:
Ivan Pedley thanked Janet, on behalf all Society members, for her successful stint as President, and for running the AGM which was also felt by all to be a huge success.

4.2 Secretary - *Christopher Ellis*

The Secretary continued the theme developed by the President and emphasised the challenge faced in recruiting volunteers to run the Society, and the difficulties faced by

volunteers in fulfilling what have become professional roles while balancing full-time work elsewhere. This is especially acute when many organisations are currently under tremendous strain, with workloads increasing as resources dwindle. It was stated that this only serves to emphasise the degree to which Janet has shouldered a huge burden of work for the Society. It was acknowledged that Janet's tenure had been a particularly challenging one, coming at a time of modernisation for the Society, and that she had delivered a tremendous workload.

4.3 Treasurer - *John Skinner*

The Financial Report for the year 1st July 2014 to 30th June 2015 was presented. In summary, our income from charitable activities for the year was £161,855, compared to a figure of £148,293 in the previous year. Expenditure on charitable activities and governance costs was £109,155 (£116,770 in the previous year), resulting in a net income of £52,700, compared to £31,523 in the previous financial year. Note, however, that the income was boosted by £25,000 from a bequest from Peter James.

The net profit from the proprietor share of *The Lichenologist* (vol. 46 for 2014) is still our largest source of income, and this year was £46,084 including £7,823 from sales of digitalised journal content. The forecast for the next year's income from this source looks very promising.

Sales income is declining slowly but steadily, with the largest contribution coming from sales of the Flora. Income from member subscriptions remains stable, but may be affected by the transfer of administration to RSB, but we have received fewer externally-funded grants and awards than in previous years.

Field meeting expenditure and income fluctuates depending on when and how expenses need to be paid.

John thanked Heidi for her work on implementing the new membership system with RSB, and Janet for her support; also Jim Hines, the American Treasurer.

Questions/Comments from the floor:

Ivan Pedley enquired about payment to the RSB for taking over the running of services. Janet confirmed that this will be c. £6000 p.a. with an initial start-up cost of £6000 (incl. VAT), which is subject to a three-year contract, and also pointed out that the RSB can provide services that volunteers can't easily manage such as online application and renewals and credit/debit card payments. Ivan pointed out that this amount represents the scale of the previous in-kind contribution made by the Membership Secretary (Heidi Doring).

David Richardson asked whether there is a forward projection of income from *The Lichenologist* from CUP. John confirmed that he has received the projection only for 2016, and not for 2017.

Adoption of the Statement on Finances was formally proposed by John Skinner, seconded by Ivan Pedley, and passed by a vote with unanimous support.

4.4 Membership Secretary - *Heidi Doring*

The main issue this year has been the transfer of our membership administration to RSB. Members have experienced some teething problems in renewing their

membership this year, such as a premature email reminder about renewing subscriptions to *The Lichenologist* that was sent before membership renewal. The transition to RSB has generated other member queries, and Heidi requested that members copy her in to any email correspondence with the RSB during this period of change.

We currently have 612 members, and recruited 55 new members during 2015. This includes 605 full members (including 13 honorary members and 58 life members), and 7 family members. A total of 452 members take *The Lichenologist* (71 online only, 381 receive a print copy). Of the 534 regular members paying annually, 113 receive a discount (18 students, and 95 senior members). The turnover of members per year is around 20%, with 10% new members joining each year and a similar number leaving. The Society sent 18 free copies of the *Bulletin* to education centres, legal deposits and exchange copies, and had 11 paid subscribers (mainly libraries at museums and botanical gardens).

Now that the day-to-day membership activity has been transferred to the RSB, the contact details for the membership enquiries have changed to member-admin@britishlichensociety.org.uk, telephone 0203 793 7852. Members should let RSB know if they prefer to receive communications on membership by post rather than by email. From 2016 there will be two separate renewal reminders, one for membership and one to renew subscription to *The Lichenologist*, a separation that allows Gift Aid to be administered. Ultimately, subscription may shift to an annual rolling membership.

The new arrangements have also required us to rewrite our data protection policy, and this is on the website and will be printed in the Summer Bulletin. Heidi thanked Les and Sue Knight for their help with sending out welcome packs over the last few years, a task now performed by RSB, and the Treasurer and President for their support in arranging the contract and terms for the transfer of data and administrative tasks to RSB.

Heidi is still busy with sorting out aspects of the transfer, but she wishes to stand down at the next AGM so we need to find a new Membership Secretary to serve the Society by 2017.

She concluded with a presentation that had been prepared by the RSB, including an overview of the new 'MySociety' web portal.

Questions/Comments from the floor:

Peter Crittenden pointed out that if the Society has to take back control of the membership administration from RSB, this might lead to an almost impossible workload for any new Membership Secretary.

Steve Price asked if moving to a rolling renewal should cause problems, might it be possible that, as an example, members joining after September could get two months free membership. Heidi confirmed that it was possible to credit payment to a subsequent financial year, and this can be considered.

Tim Wilkins asked whether we might introduce a reduced fee for in-year joining. Heidi thought this might be complicated because of links between membership and the *Bulletin*, or *The Lichenologist*, as these would then need to be sent out retrospectively. It

was pointed out that any of these decisions may require a change to the Constitution. David Richardson clarified that after joining mid-year, such members do get back in-year issues, so they do get what they pay for.

Kristine Bogomazova pointed to the danger of losing students who want to join on an ad hoc basis, because they may not be able to afford annual subscriptions in close succession.

Heidi was thanked warmly by the members.

4.5 Conservation Committee - *Neil Sanderson*, on behalf of *Bryan Edwards*

The committee has not met for some time but continues to deal with matters by email, and has now set up three country sub-committees, for England (chaired by Neil), Scotland (chaired by Sandy Coppins), and Wales (chaired by Ray Woods).

The Scottish committee has already produced a newsletter which highlights the proliferation of hydro schemes. These do require Environmental Impact Assessments, but it seems that lichens are not always considered. The greatest concern has been the scheme on the River Isla at the Slug of Auchrannie, Angus, which has the largest known population of River Jelly Lichen *Collema dichotomum* in the world. The site is a SSSI and the species is listed on Schedule 8 of the Wildlife and Countryside Act (1981), but SNH felt that there were "overriding public, social and economic benefits" from the scheme and planning permission was granted despite representations from the BLS and local experts. The rarity of the RJL was recognised and BLS proposals for monitoring and mitigation have been adopted.

Tim Wilkins is now the Senior Specialist for Lichens & Non-lichenised Fungi for Natural England, and has been supported by the English Lichen Taxon Group in his work to protect Schedule 41 species. He has been replaced in Plantlife Wales by Dave Lamacraft.

New selection guidelines are being developed for SSSIs, and this will include a chapter dedicated to lichens for the first time. Tim and Neil are working together on this. Some habitats, such as woodlands, are well understood and the criteria for these are quite straight forward, but much work will be required on other habitats such as metalliferous, maritime and fresh water assemblages. This needs to be completed before June.

The *Lobarion* project report is now expected in May, having been delayed by some time-consuming data issues.

Finally a good news bad news story. *Buellia asterella* has been accepted for the world Red List as Critically Endangered, the first British species to be added. Unfortunately it appears to be now extinct in Britain. The committee will review the situation with this species and the Breckland lichens in particular.

4.6 Data Committee - *Les Knight*

The committee has met three times in 2015, and its work continues to be focussed on delivering the Data Strategy adopted in 2014.

Theme 1: Maintaining our lichen records database. A priority has been to secure the database by increasing the number of copies and documenting procedures. There is still some work to do on the procedures used by Janet to import data and to update

distribution maps and the NBN, but this knowledge exchange should be completed in the next few months. A security audit is being carried out.

Theme 2: Supporting field recording and identification. This has led to trials of LUCID multi-access computerised keys, which can allow better decision making when faced with uncertainty. The first was a *Cladonia* key and this was trialled at the Unst meeting. A revised version is now available. There have been difficulties for some when installing the LUCID software, a possible solution being to run the software in a browser. Eventually it is hoped that the LUCID keys will be expanded to cover all lichens based on Frank Dobson's data in the Lichen Identifier, which he has generously shared with the BLS.

We are also exploring the use of iRECORD for online recording, and there is now a version of this which has been tailored to include lichens. It is designed for the non-specialist and low volumes of records, so active recorders are asked to continue to use the spreadsheet as this makes much less work for Janet and Brian.

Theme 3: Supporting user access to the database. This involves dealing with data requests, and we have now published distribution maps for all species on the BLS website. These are now about 11 months old so they will be updated in 2016, and we are also overdue in updating our datasets on the NBN Gateway.

Theme 4: Links to related projects. Several aspects are under discussion.
Les concluded by thanking committee members for their support.

4.7 Education and Promotions Committee - *Fay Newbery*, on behalf of *Sally Eaton*

EPC have met three times, and their main focus has been developing the skills list, following up on the photo competition, and helping to deliver the '*Making the Small Things Count*' initiative.

The skills list has been published in the *Bulletin* and is available on the website. It provides a way of enabling tutors to describe course content, and for students to design their continuity of learning. Sue Knight was thanked for her work on this.
2017 calendars for pre-purchase will be available from the autumn, using images from the photo competition.

Finally, the Plantlife-led '*Making the Small Things Count*' initiative has led to an increased awareness of bryophytes and lichens in south-west England, through an apprenticeship scheme and lichen walks, and a second round of funding has been applied for.

Sally steps down after four years as the Chair of EPC, and was thanked for her work.

4.8 Member Services Committee - *David Hill*

A major aim of MSC over the last year has been to incorporate local groups within the BLS and ensure that they can be covered by our insurance if formally acknowledged as a local group of the society and if they conform to our procedures for risk assessment. Anyone interested in setting up a local group should contact David for assistance.

Our offer to members will be much improved as a consequence of our relationship with RSB. Since this major initiative has now been delivered, David feels it to be an appropriate time for the role and working of MSC to be reviewed and for a new Chair to then take over. He thanked all members that had served on the committee for their time and other contributions. Heidi will take on the role of interim Chair.

4.9 *Bulletin* Editor - *Paul Cannon*

Paul reviewed the last two issues of the *Bulletin* (noting a slightly slimmer Winter Issue) and all contributors were thanked. It was emphasised that success depends on continued contributions from members.

Any previous complications related to distribution have been dealt with.

As vice-President, Paul is looking towards the time when he passes on editorship of the *Bulletin* to someone else. A new Editor will be needed by 2018.

Questions/Comments from the floor:

Peter Lambley expressed his appreciation of the *Bulletin*, on behalf of members of the Society.

4.10 *The Lichenologist* Senior Editor - *Peter Crittenden*

We produced six issues of *The Lichenologist* in 2015, but there were fewer submissions this year (414 pages compared to 837 in 2014). Dealing with publishing problems with a new offshore type-setting company has been time consuming but the issues seem now to be resolved.

Tony Braithwaite has now stood down as Managing Editor, a job he has done for last 16 years, and Margaret Crittenden has taken on the role. A tribute to Tony will be published in *The Lichenologist*.

Peter thanked the team that runs *The Lichenologist*, including the editorial board, copy-editors, proof-readers, and referees. He expressed hope that with the new fee structure separating membership from journal subscription, the membership will continue to take *The Lichenologist*. It is a service to the Society to take the journal.

Questions/Comments from the floor:

The AGM made a vote of thanks to Tony on behalf of all members of the Society, and Margaret was thanked for taking on his role.

Ivan Pedley enquired as to the size of the print run. Peter confirmed a print run of c. 800, but with many more sales that are electronic when sold as part of a CUP bundle in digital access form.

4.11 Website Editor - *Janet Simkin*

Janet reported that she is still standing in as website editor and webmaster, but is unable to devote much time to this and would really like to hand it over to someone else. Until this happens the development of the website will remain limited, and a great opportunity will be missed. The website is the public face of the society, not so much to members but to non-members who seem to use it quite heavily.

Currently there are serious technical issues with technical maintenance and backup of the website, and Alan Hale wishes to give up the hosting and support. We are negotiating with the Centre for Ecology and Hydrology for them to take this on as part of the role in supporting national societies and recording schemes, but if this does not work out we will have to pay for a commercial arrangement.

We have been asked to take on and redevelop the British Lichens website as well, but can't do anything with it until we have technical support in place.

Questions/Comments from the floor:
Heidi reminded the meeting that the Society also has a Facebook page, but Janet pointed out that we need someone to take this on and keep it active, and we also need someone to run a Twitter account for the society.

4.12 Field Meetings Secretary - Steve Price

Field meetings in 2015 were successful and well attended:

- AGM outing to Brookwood Cemetery, Surrey. Sunday 18 January 2015. Local organiser Paul Cannon.
- SPRING MEETING in Snowdonia. 2-9th May 2015. Local organiser Ray Woods. Attendees 29.
- SUMMER MEETING in Unst, Shetland, with workshop sessions on the genus *Cladonia*. 4-10th July 2015. Local organiser Becky Yahr, *Cladonia* tutor Annelie Burghause. Attendees 27.
- AUTUMN MEETING in the Forest of Dean. 24-28th September 2015. Local organiser Juliet Bailey. Attendees 22.

Steve thanked the local organisers, and Annelie for her tutorials on *Cladonia*.

The Nottingham University Workshop on the lesser used stains, tests and techniques in lichen identification was postponed to 2016.

Details of meetings arranged for 2016 are on the website:

- AGM outing to Wallington Hall (National Trust). 17th January 2016. Organiser Janet Simkin
- WINTER WORKSHOP at Compton Martin, Bristol, on the lesser used stains, test and techniques in lichen identification. 19-21st February 2016. Organiser David Hill, tutors Brian Coppins, David Hill and Mark Powell.
- SPRING MEETING on the Isle of Wight. 15-22nd April 2016. Organiser Steve Price, field organisers Sheila and Les Street.
- SUMMER MEETING on Sleat, Isle of Skye. 11-18th June 2016. Organiser Steve Price, field organisers John Douglass and Andy Acton.
- AUTUMN MEETING in the North York Moors. 26-20th September 2016. Organisers Steve Price and Peter O'Neill.

For 2017 meetings two meetings have so far been arranged:

- SPRING MEETING/WORKSHOP on lichens of limestone habitats, based at Malham Tarn FSC. 18-25th April 2017. Organisers/tutors Brian Coppins and Allan Pentecost.

- SUMMER MEETING in Öland and Kalmar, Sweden. 12-18th June 2017. Local organiser Lars Borg.

Offers are required for a trip during Autumn 2017, preferably somewhere in the south of Britain [this has now been resolved].

4.13 Librarian - *David Hill*, on behalf of *Ray Woods*

The library has been housed at the National Botanic Garden of Wales near Carmarthen for six years but there are doubts about whether they can continue hosting it because of a reduction in their funding. Usage by members continues to be low but we shouldn't necessarily judge the value of the library by the extent to which it is used currently, and if necessary alternative accommodation must be found.

4.14 Archivist - *Mark Seaward*

The archives remain well used and there is a dire need to secure continuity and accessibility of both the archives and the mapping scheme cards.

4.15 Herbarium Curator - *Richard Brinklow*

Use of the herbarium is light, but its accommodation remains secure. New members were reminded that the herbarium is available for loans, and includes specimens of about 800 species, mostly macroclichens suited to beginners.
Richard thanked in advance those who will send specimens to the herbarium in 2016.

Questions/Comments from the floor:
David Hill provided a reminder that the list of available species is on the website.

5. Election of Officers and Council Members

Three Council members retired at this meeting, Juliet Bailey, Sheila Quinn and Pat Wolseley, and five officers, Janet Simkin as President, Allan Pentecost as Vice President, Chris Ellis as Secretary, David Hill as Chair of MSC, and Sally Eaton as Chair of EPC. Janet will continue on Council for one year as immediate Past-President. All were thanked warmly for their service.
The following Officers were elected:

- President, Allan Pentecost (proposed by Janet Simkin; seconded by Les Street)
- Vice President, Paul Cannon (proposed by Allan Pentecost; seconded by David Hill)
- Secretary, Pat Wolseley (proposed by Chris Ellis; seconded by Heidi Doring). Pat will be to be assisted by Sandy Coppins.
- Chair of EPC, Fay Newbery (proposed by Paul Cannon; seconded by Maxine Putnam)
- Chair of MSC, Heidi Doring for a one year interim period (proposed by David Hill; seconded by Ivan Pedley)

The remaining Officers were elected for another year en bloc (proposed by Janet Simkin; seconded by Peter Crittenden).

Ordinary Council Members were elected as follows:

- Tracy Lovering (proposed by Allan Pentecost; seconded by Ishpi Blatchley).
- Tim Wilkins (proposed by Neil Sanderson; seconded by Steve Price).
- Niall Higgins (proposed by Peter Crittenden; seconded by Holger Thus)

All the elections were accepted by a unanimous vote.

6. Subscription Fees 2017

A proposal to change the subscription fee for life members had been publicised in the Bulletin and was commended to the meeting. This was proposed by Heidi Doring, seconded by David Hill, and accepted by a unanimous vote.

7. Ursula Duncan Award

The Ursula Duncan Award was presented to Ishpi Blatchley, and the oration given by Ivan Pedley.

8. Date and Place of AGM 2017

The next AGM will be held in London, with the date and venue still to be finalised.

9. Any other business

Finally, the incoming President Allan Pentecost thanked Janet for her remarkable work and commitment to the Society, and on its behalf Janet was presented with a bouquet of flowers by Heidi Doring and John Skinner.

The British Lichen Society planning to become a Charitable Incorporated Organisation (CIO)

Advance notice of a proposed change to the Constitution at the next Annual General Meeting (The Natural History Museum, 21st January, 2017)

The British Lichen Society is currently looking into the possibility of changing its status to a Charitable Incorporated Organisation (CIO). None of the aims of the Society, and few of its regulations would be affected by this change, and it would permit the Society, if it wished, to employ individuals for specific administration tasks and contracts, and remove any further liabilities of the trustees. In order to become a CIO the Society would need to dissolve the current constitution and **replace** it with a new one in line with Charities Commission guidelines. There is at present no clause in the Constitution to allow its dissolution.

The proposed new clause:

The British Lichen Society may dissolve its Constitution only by resolution of its Members at an Annual General Meeting (AGM) or Special General Meeting (SGM) and will be passed by a minimum 67% (2/3) majority in favour.

The change to a CIO would also require the assent of its members at an Annual General Meeting (AGM) or a Special General Meeting (SGM) where a quorum of voting members (a minimum of 25) must be present. However this change is currently in the early planning stage but members will be given the opportunity discuss the proposals at the next AGM.

The trustees of the Society comprise all currently serving officers and members of Council. The liabilities of the trustees are not fully described by the Charities Commission owing to the great diversity of charitable activities. However, liabilities likely to be relevant to BLS trustees include financial loss caused by a trustee (or trustees) acting improperly or to a third party that has a legal claim against the Society which the charity cannot meet. Claims might be conceivably made in the latter case for damage or injury on a Society field trip in cases of inadequate supervision or planning. It should be noted that claims against trustees are extremely rare, but it is clearly important to reduce these risks to trustees as much as possible.

Members may obtain further information on CIO's at *www.gov.uk/government/organisations/charity-commission*

Allan Pentecost
President

Data Protection: Privacy Statement

Who we are

The British Lichen Society, registered charity 228850, welcomes all who are interested in lichens, whether you are a complete beginner or someone with a life-time's experience of lichenology. Throughout the world, but with a special emphasis on the British Isles, our aims are:

- to promote and advance the teaching and study of lichens
- to encourage and actively support the conservation of lichens and their habitats
- to raise public awareness of the beauty of lichens and of their importance as indicators of the health of our environment.

We work towards these aims through field meetings, workshops and recording projects. Our Bulletin is packed with information about lichens, lichenologists and events, and we also publish a highly regarded scientific journal, The Lichenologist.

The Royal Society of Biology is a registered charity (number 277981) and is incorporated by Royal Charter. The Royal Society of Biology is registered with the Information Commissioner's Office (number Z5761557) in the UK under the Data Protection Act 1998.

The Royal Society of Biology acts as service provider for the British Lichen Society and handles data on behalf of the British Lichen Society, including data related to membership and services provided in our online portal mySociety.

What we collect

The types of personal information we collect may include your title, first name, surname, gender, date of birth, your qualifications, home and work contact details (telephone, fax, street address, email address), credit card details or bank details, and your mailing address. We may also collect information relating to your employment, including where you are currently employed, your job title, areas of interest or expertise, and your job function if this is relevant to your membership.

How we handle your personal information

The British Lichen Society and the Royal Society of Biology respect the privacy of members and website users, and aim to act consistently with the Data Protection Act and the eight principles of data protection. Generally, the British Lichen Society and the Royal Society of Biology collect personal information directly from you when you:

- Deal with us in person, by telephone, letter, fax or email
- Fill out and submit a membership application form
- Submit any other information in connection with your application for membership or renewal of membership or the purchase of other services
- Register for a publication subscription
- Make an enquiry
- Register to attend an event

Why we collect information

We collect personal data to administer our activities, events, publications or services.

Maintaining the accuracy of data

Members can correct or update personal data using their online mySociety account or by contacting us by emailing *member-admin@britishlichensociety.org.uk*.

Payment and bank details

Any information provided by you in connection with a Direct Debit payment or transactions regarding your credit or debit card numbers, expiry date and billing or delivery address will be used by us to process the transaction.

Credit card details are not stored on our servers, but are securely stored by the payment provider employed by us for the processing of card payments.

Use and disclosure

The policy of the British Lichen Society and the Royal Society of Biology is not to disclose any personal information that we hold on you to any unrelated third party, except where you have given your express consent for us to do so or where required by law.

The British Lichen Society (or its committee members or representatives) may use your email address for the purpose of notifying you about products, services, events or activities of relevance to you. If you tell us that you do not wish us to use your personal information for a particular purpose we will not do so.

We also collect email addresses from people who subscribe to our email lists. If you do not want to receive email from us in the future please let us know by sending an email to *member-admin@britishlichensociety.org.uk*.

Personal information collected on this website will be used only for the purpose stated (such as the processing of membership or grant applications) and such information will be held for as long as necessary to fulfil the stated purpose. Personal data collected during the process of membership application will be kept indefinitely, in a secure database, for the purpose of lapsed membership campaigns.

The British Lichen Society (or its committee members or representatives) may, from time to time, email you with additional information considered to be relevant to your professional or scientific interests, but only to those who have given their agreement to receiving such communications.

Information that you supply to the British Lichen Society and/or the Royal Society of Biology through our website is held securely and strict security procedures are followed to prevent unauthorised access or use.

Information to improve our website

We also collect information automatically about your visit to this website. This information is used to help us follow browsing preferences on our website so that we can regularly improve it and enable more advanced features.

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A cookie is a text-only string of information that a website transfers to the cookie folder of the browser on your computer's hard disk so that the website can remember who you are. The law relating to cookies changed on 26 May 2011. The new rules require that cookies can only be placed on computers where the user has given their consent.
Our website uses cookies for essential functions such as login and account management. We also use Google Analytics to monitor website usage and to make relevant improvements. If you do not want to be tracked by Google Analytics then please follow Google's opt-out instructions. More information about cookies and how to opt out of using them is available at *www.allaboutcookies.org*.

Please note that you will not be able to login to our website without using cookies.

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You can seek access to the personal information we hold about you, by contacting us. You should include your name, address and telephone number. If the information we hold about you is inaccurate, incomplete or outdated, please inform us so that we can correct it.

Your consent to this policy

By using our websites, you consent to the collection and use of information by the British Lichen Society and the Royal Society of Biology as specified above. If we decide to change our privacy policy, we will gain consent where appropriate and post those changes on this page so that you are always aware of what information we collect and how we use it.

How to contact us

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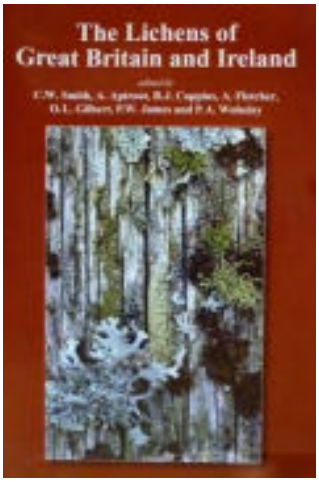
Version 3. Issued 2 December 2015

Publications and other items for sale

Please contact The Richmond Publishing Co. Ltd, The Cottage, Allerds Road, Slough, SL2 3TJ, tel. (+44) (0)1753 643104, email rpc@richmond.co.uk to purchase these items, and to enquire about **overseas postage prices outside of Europe**. RPC now accepts BACS transfers and payments via Paypal.



Cat.1. The Lichens of Great Britain & Ireland. Ed. Smith et al. (2009). Hardback, 700pp.
This work, a much enlarged revision of 'The Lichen Flora of Great Britain and Ireland published in 1992, reflects the enormous advances in lichen taxonomy over the last two decades. There are keys to 327 genera and 1873 species, with detailed descriptions and information on chemistry and distributions. The language is accessible, avoiding obscure terminology and the keys are elegant. The Lichens of Britain and Ireland is undoubtedly the standard work for the identification of lichens in Great Britain and Ireland and will be indispensable to all serious students of lichens and to other biologists working in the related fields of ecology, pollution, chemical and environmental studies.

BLS members: £45.00 ; non-members £65.00
Postage & Packing £7.50 UK (note this is a very heavy book!), £15.00 Europe.

Lichen Atlas of the British Isles, ed. M.R.D. Seaward
The Atlas has been published in fascicles, unbound A4 sheets hole-punched for keeping in a ring binder. Each species account includes a distribution map and a discussion of the lichen's habitat, ecology, identification and status.
Fascicles 1 and 2 (*Cladonia* part 1) are out of print.
Cat.3. Fascicle 3: The foliose *Physciaceae* (*Anaptychia*, *Heterodermia*, *Hyperphyscia*, *Phaeophyscia*, *Physcia*, *Tornabea*) plus *Arctomia*, *Lobaria*, *Massalongia*, *Pseudocyphellaria*, *Psoroma*, *Solorina*, *Sticta*, *Teloschistes*. (54 spp) 1998.
Cat.4. Fascicle 4: *Cavernularia*, *Degelia*, *Lepraria*, *Leproloma*, *Moelleropsis*, *Pannaria*, *Parmeliella*. (36 spp) 1999.
Cat.5. Fascicle 5: Aquatic Lichens and *Cladonia* part 2. (64 spp). 2000.
Cat.6. Fascicle 6: *Caloplaca*. (58 spp) 2001.
All fascicles are offered to members and non-members at a special price of £3.00 each, (approximately half price). Postage & Packing £3.50 UK, £10.00 Europe, **per fascicle**.
Cat.7. Fascicles 3 to 6 for £9.00 (Buy 3, get one free!). per fascicle. Postage and packing £10.00 UK, £25.00 Europe.

Cat.8. Microchemical Methods for the Identification of Lichens by A. Orange (2010)

2nd edition, with two colour plates. Full of useful information on pigments, crystals, colour tests with reagents and TLC. Price £8.00 members, £10.00 non-members. Postage and packing £3.50 UK, £8.50 Europe.

Cat.9. Conservation Evaluation of British Lichens and Lichenicolous Fungi by B.J.Coppins and R.G. Woods (2012)

An update and revision of the 2003 edition and now extended to include lichenicolous fungi. Provides a comprehensive catalogue of threat statuses. Also included are lists of specially protected species in England, Scotland and Wales and those species for which Britain has an internationally important population. It is no. 13 of the JNCC's Species Status volume series. A4 paperback 155pp. £7.00. Postage and packing £5.00 UK, £10.00 Europe.

Cat.10. Surveying and Report Writing for Lichenologists Ed. D.J. Hill (2006)

Guidelines on commissioning surveys, fieldwork, identification and report writing, aimed principally at those people and organisations commissioning surveys and at those undertaking them. However, much of the information is of value to any lichenologist engaged in field recording.
BLS members £7.00; non-members £10.00. Postage & packing £2.50 UK, £6.50 Europe.

Cat.13. Usnea 'Aide Memoire' by P.W. James

A5 booklet with drawings and many useful tips for identifying the British species of this difficult genus.

BLS members £2.00; non-members £3.00. Postage & packing £1.50 UK, £2.50 Europe.

Cat.14. The Lichen Hunters by O.L. Gilbert (2004). Hardback, 208pp.
If you have been on any lichen field meetings in the last fifty years, this is a book you will enjoy. The late Oliver Gilbert's boundless enthusiasm comes across in every page as he describes field meetings and explorations around Britain. Many past and present members of the Society are fondly remembered in this delightful book. Special price, now £6.00. Postage & packing £4.50 UK, £10.50 Europe.

Cat.15. 'Understanding Lichens' by George Baron (1999). Paperback, 92pp.
An excellent introduction to lichenology, from the basic biology of lichens to their environmental importance as well as the history of the science.
BLS members £8.95; non-members £9.95. Postage and packing £2.50 UK, £6.50 Europe.

Cat. 16. A Field Key to Common Churchyard Lichens by Frank Dobson (2003)
Spiral-bound book with strong paper. Illustrated keys to lichens of stone, wooden structures, soil and mosses. 53 colour photographs. Covers many common lowland lichens.
BLS members £6.50; non-members £7.50. Postage and packing £2.50 UK, £6.50 Europe.

Cat. 17. A Field Key to Coastal and Seashore Lichens by Frank Dobson (2010)

A superb guide to over 400 species. 96 colour photographs. In the same format as cat. 16.
BLS members £10.00; non-members £12.00. Postage and packing £2.50 UK., £6.50 Europe.

Cat. 18. A Field Key to Lichens on Trees by Frank Dobson (2013)

A superb guide to around 500 species. 96 colour photographs. In the same format as cat. 16.
BLS members £15.00; non-members £17.00. Postage and packing £2.50 UK, £6.50 Europe.

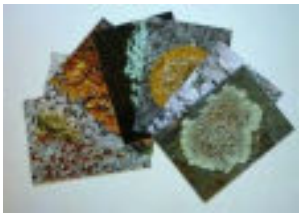
Cat. 21 and 22. Lichen Wall Charts illustrated by Clare Dalby.

Two beautifully illustrated wall charts, **'Lichens on Trees'(cat.21)** and '**Lichens on Rocky Seashores' (cat.22)** have been produced by artist Clare Dalby. Each is A1 size (80cm wide x 60cm high) and feature over 40 species in colour, nomenclature updated to 2010. £5.00 per poster, £4.00 per poster for purchases of 8 or more. Postage and packing (for up to two posters) £6.50 UK, £7.00 Europe.

Cat.23. Parmelia identification CD-Rom
Although the nomenclature has been superceded, this CD provides a useful range of photographs and other information for identification. BLS members: £5.00; non-members £7.00. Postage and packing £2.00 UK, £5.00 Europe.

Cat.25. Greetings Cards/Notelets by Claire Dalby

A set of five cards with envelopes, featuring five exquisite pen and ink illustrations of British lichens.
£2.00 per set. Postage & Packing £2.00 UK, £3.50 Europe.



Cat.26. BLS Postcards

A set of 16 beautiful photographic postcards of British lichens.
£2.00 per set. Postage & Packing £1.50 UK, £3.50 Europe.

Cat.27. Woven ties with below-knot motif of BLS logo. Attractive ties with discreet BLS logo. Colours available: maroon, navy blue, brown, black and gold.
£7.00. Postage & Packing £1.50 UK, £3.50 Europe.

Cat. 28. Car sticker, diam. 12 cm. peels off easily. Recognise fellow members in the car park!
£1.00. Postage & packing £1.00 (UK), £2.50 (Europe).

Cat. 29. Enamel badge, diam. 2.5 cm, pin fixing, matt finish. A well -made attractive badge.
£1.00. Postage & packing £1.00 (UK), £2.50 (Europe).

Cat. 30. Fabric badge, diam. 6 cm. Ideal for sewing onto a cap or rucksack.
£1.00. Postage & packing £1.00 (UK), £2.50 (Europe)

Cat. 31. Lichens – An Illustrated Guide to the British and Irish Species 6th Edition (2011)

This enlarged edition (496pp) of this popular book provides an invaluable guide to identifying the British and Irish species, both for the beginner and the more advanced lichenologist. With detailed air pollution references and distribution maps, it offers the environmentalist and ecologist a concise work of reference, compact enough to be used in the field. The 6th edition has been revised to conform with the nomenclature of 'The Lichens of Great Britain and Ireland' ed. Smith, C.W. et al. (2009) and more recent changes. Over 160 additional species to the previous edition have been added so over 1,000 species are now treated.

Entries usually consist of a description of each species, a photograph, notes on habitat, chemical tests, line drawings to clarify the description and a distribution map giving three date separations. There is an enlarged generic key and a much extended section on sterile species. A generic synopsis is included to assist the more experienced lichenologist.

Paperback edition is now out of print (a new edition is expected within the next two years) but ***a small number of hardback copies are available at the paperback price of £35.00.*** Postage & packing £5.00 UK, £12.00 Europe.

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