



British Lichen Society *Bulletin*



British Lichen Society Bulletin no. 116

Summer 2015

Welcome to the Summer 2015 Bulletin. Firstly, there were major problems with distribution of the Winter 2014 issue, with a substantial number of members receiving empty envelopes (or nothing at all). The distribution company has worked constructively with us to fix the problem, but if yours is still missing, contact us and we'll make sure one is sent out asap. And do please also **remember to renew your subscription for 2015** if you have not already done so – see p. 158 for instructions.

A substantial part of the last issue was taken up by tributes to Peter James; we hardly imagined that further space in the current volume needed to be reserved for appreciations of the life of another eminent lichenologist, David Galloway. David was one of the principal driving forces in austral lichenology, being author of two editions of the *Flora of New Zealand Lichens* (the second has two volumes and no less than 2261 pages...) He was also a reliable and erudite contributor to this *Bulletin*, especially on historical lichenological matters.

On a happier note, the Summer 2015 *Bulletin* begins with a report of the first [as far as the editor is aware] BLS Photographic Competition. The standard was impressively high with entries from around the globe, and the winners and highly commended entries are reproduced here.

A mini-theme of lichen translocation for conservation purposes is included in this issue, with a fascinating account of the long-term fate of translocated thalli of *Teloschistes flavicans* from Barbara Benfield, and a rather more serendipitous contribution from Leo Spier and Klaas van Doort. This lichens through time theme is also represented by a full account of change over thirty years in a snow-patch lichen community in the Cairngorms, the research funded in a modest way via a grant from the BLS.

Field meeting reports include those from Cumbria last August/September and Kent in October: representing two highly contrasting lichen biotas, both turned up interesting new records and a great time was had by all.

Changes to the Constitution of the BLS were agreed at the AGM at Kew in January this year, primarily in order to enable the Society to claim Gift Aid on UK subscriptions. You can see the new version on pp. 135-139.

And finally, a message from the Spiral Knights on-line gaming world (see <http://wiki.spiralknights.com/Lichen>). According to this unimpeachable source, lichens are “strange, alien varieties of slimes thought to have arrived on this world in a large meteor. While a single-cell colony is mostly harmless, they can quickly combine into a most terrible foe. Keep them from mingling!” You have been warned...

Front cover: Not all lichens are slow-growing: *Bacidia bagliettoana* was found colonizing a rabbit pellet on the Gower peninsula.

BLS Photography competition

The first ever British Lichen Society Photography Competition went off with a bang last year with over 140 entries being received from around the world. Entries were sent in from California, Canada, Luxembourg, Chile, Germany, Finland and France as well as from far flung corners of the UK. With a closing date of 30th November set, the tricky task of judging began on a frosty morning at the Royal Botanic Garden in Edinburgh. The judging panel comprised Janet Simkin, our very own president, renowned lichenologist Sandy Coppins and Louise Olley who is a Visual Artist and Assistant Curator of the lichen and fungi herbarium at RBGE. (For more about Louise's work see <http://www.waspsstudios.org.uk/artists/4083>).



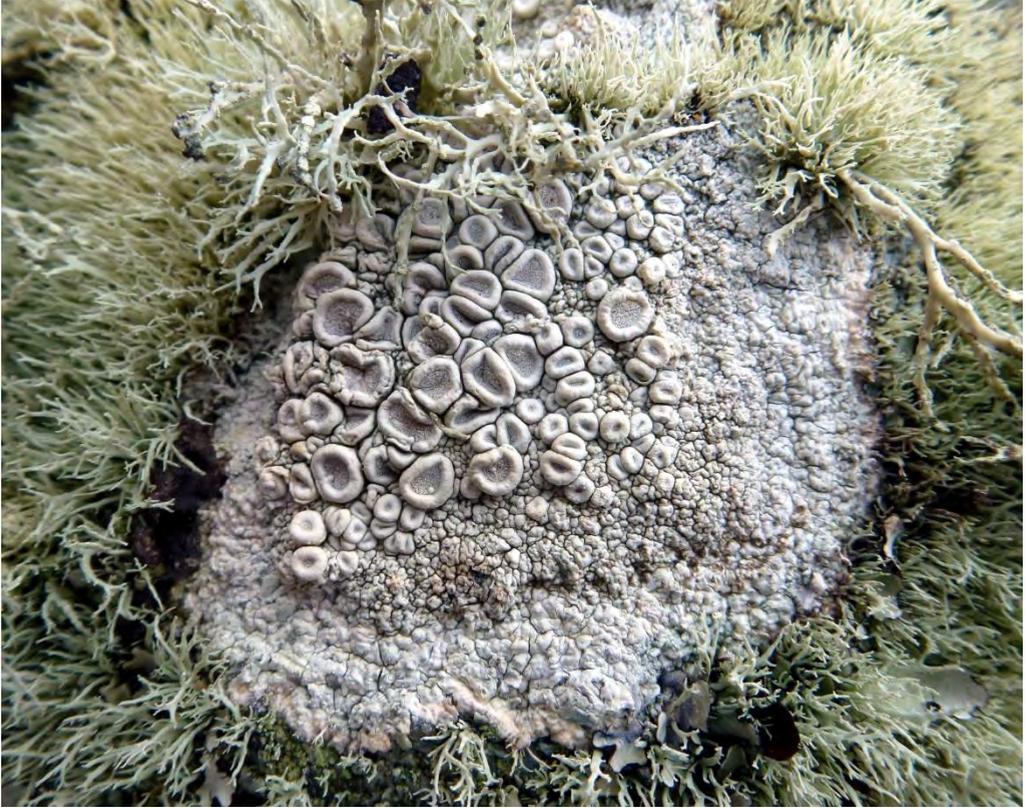
The entries set out for judging.

The entries were of such a high standard that the judging was a difficult task, requiring several cups of tea and numerous chocolate biscuits to be consumed over intense debates of colour and context. The winning and highly commended entries were finally revealed to all at a Friday evening drinks and nibbles event at Kew in January this year during the BLS AGM, to the delight of all those attending.

Without further ado, we are very pleased to be able to display the winning and highly commended entries in this issue of the bulletin.

Category: Portrait

WINNER: Parella Island



Location: Rhoscolyn, Anglesey, Wales. *Michael Dewey* (Cumbria, UK)

Highly commended:

Lichen Graphics



Location: North Devon.
Maxine Putnam (Devon, UK)

On a Misty Seashore



Location: California Pacific Coast, USA
Annina Launis (Helsinki, Finland)

Highly commended:

Caloplaca maritima



Location: Breskens, Zeeland, Netherlands.
Paul Diederich (Strassen, Luxembourg)

Tresses of Ramalina



(right)
Location: Royal Botanic Garden Edinburgh
Rebecca Camfield (Edinburgh, UK)

Category: Abstract
WINNER: Lichen on Flint – 1014



Location: North Norfolk, UK. *Jan Cassidy* (Cambridge, UK)

Highly commended:

pel-Tiger-a



Location: Lee Bay Woods, Devon
Tony Holwill (Devon, UK)

Mountains made of lichen



Location: Chamonix, France
Katherine Knight (Dorset, UK)

Lichen applique



Location: Studio, Gloucestershire
Liz Brooke Ward (Gloucestershire, UK)

Haze of acidophile lichens on Alder



Location: Inverness
David Clarke (Cumbria, UK)

Elegantissima III



Location: Namib desert, Namibia
Volkmar Wirth (Murr, Germany)

Tsunami



Kyoto, Japan
Joel Querellou (Brittany, France)

Category: Landscape

WINNER: Dales dry stone wall



Location: Swaledale, North Yorkshire. *Katherine Knight* (Dorset, UK)

Highly commended:

Lichen landscape 3



Location: Merquiche beach, Chile
Teresa Vergara Gonzalez (Santiago, Chile)

Cladonia uncialis



Location: Feulen, Luxembourg
Paul Diederich (Strassen, Luxembourg)

Highly commended:

Lichen desert



Location: Namib desert, Namibia. *Volkmar Wirth* (Murr, Germany)

We would like to take this opportunity to thank all of those who contributed their photographs to this competition, we were very pleasantly overwhelmed by the volume received and the overall high quality of the entries. Due to the success of the competition it is hoped that another competition will be run in 2017, so watch this space for entry details and hang onto any winning shots!

Sally Eaton (Chair of EPC)
Royal Botanic Garden Edinburgh

The fortunes of *Teloschistes flavicans* in East Devon

This update is in memory of Oliver Gilbert who died ten years ago. He wrote an audit of *Teloschistes flavicans* in South West England in 1995, established the *Teloschistes* transplant project in 1997 and continued to visit Devon to monitor the county sites for five years. Transplants in South Devon on sycamore at the Stokenham SSSI and at a former site at Buckland-in-the-Moor disappeared in less than five years, but the East Devon transplants were more successful.

Teloschistes flavicans was considered common throughout Devon and Cornwall in the 19th century (Holmes 1886) but has since declined in Devon to a few well known sites along the South Devon coast and Lundy, though it remains locally frequent in west Cornwall.

From the 27 county sites where it has been recorded since the 1880s 15 were coastal and 12 inland. Details were not always given pre-1950 but with known data, 7 of the coastal sites were associated with low vegetation generally sheltered by rock outcrops, in 13 situations the host was ash, 2 sycamore, 2 oak, one willow and 2 in orchards. It has not been refound recently at 17 of its former locations in Devon.

It was discovered in the east of the county in the 1980s where two sites were inland and one coastal and at all three mature ash was the host. All East Devon sites are near or beside old tracks. It has been suggested that dust from unmade trackways was an important requirement for *Teloschistes* inland in the UK.

In 1995 Oliver Gilbert compiled an audit of *Teloschistes flavicans* in South-West England for English Nature, followed by a paper in the *Lichenologist* (1996). Subsequently Natural England commissioned transplant trials at some of the vulnerable sites where the *Teloschistes* was on only one tree. The transplants were monitored annually from 1997 – 2002 by Gilbert and/or Benfield. Two places in East Devon were chosen. In both situations *T. flavicans* was on one well lit mature ash with similar trees nearby. The donor trees were chosen for their comparable lichen flora and light intensities.

East Devon sites

1. Uggaton Farm, Upton, Payhembury 31/093030, found in 1980
2. Lincombe 30/156883 near the coast path discovered in 1985
3. It was seen at Plymtree 31/069029 when an ash fell across an access track in 1986. The tree was removed and it is now assumed extinct in the parish.

Transplant site 1, Uggaton Farm

During the transplant trials, Oliver Gilbert estimated quantity in number of tufts. Using this method there were only about three clearly visible tufts at Plymtree. At Uggaton Farm, in the adjacent parish of Payhembury, about 70 well developed tufts were noted in 1996 and a 'twin' ash 2m away was chosen as the receptor tree. *Teloschistes flavicans* was transplanted by glueing two pieces of bark with the lichen onto the receptor ash. This remained healthy for ten years and small tufts fell and

established on the trunk below. They continued to expand or move until 2010 when no *Teloschistes* was seen on the receptor tree. Although it remained healthy on the donor the number of tufts had more than halved. By 2012 the population was reduced to four small tufts and by 2014 none was found on either tree.



One of the groups of *Teloschistes* on the donor tree at Uggaton Farm 1997. By 2014 all had gone.

Of the 48 lichen species recorded on the ash trunk at Uggaton Farm eight were seen in all eight years the trees were visited. In 2001 *Agonimia tristicula* was found and has increased every year since. Some species were recorded on the trunk for the first time in 2014 and *Normandina pulchella* was seen fertile. Of the species that appear to have disappeared *Lecanora expallens* and *Parmelia saxatilis* may be the most telling. Local air quality could have been altered when an adjacent farm removed many hedges and increased the number of intensive pig rearing units. However, *P. saxatilis* was not recorded at Lincombe or Stokenham SSSI at any time during the *Teloschistes* survey so it does not appear to be a faithful part of the *T. flavicans* community.

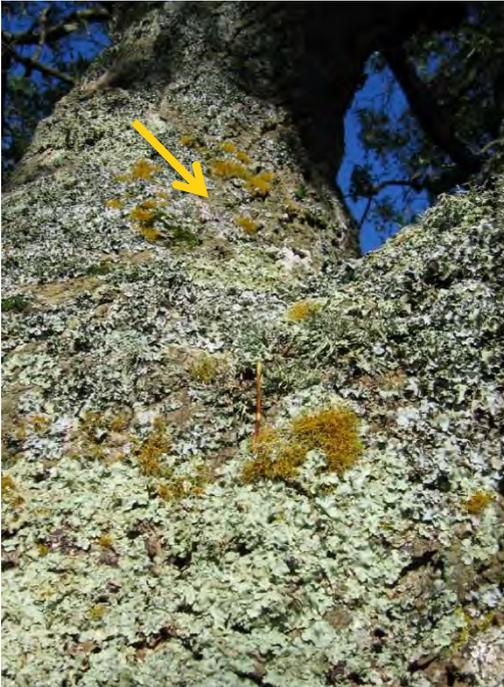
Transplant site 2. Lincombe

This coastal colony of *Teloschistes flavicans*, which is on National Trust managed land, was the most eye catching sward in East Devon. The main patch remains in a sheltered situation 4m from the ground. Gilbert (1995) estimated the population to comprise about 70 tufts but it was difficult to judge at that height without closer inspection. Many smaller groups had colonised the trunk below this core group where a runnel had distributed viable tufts to the base of the trunk.

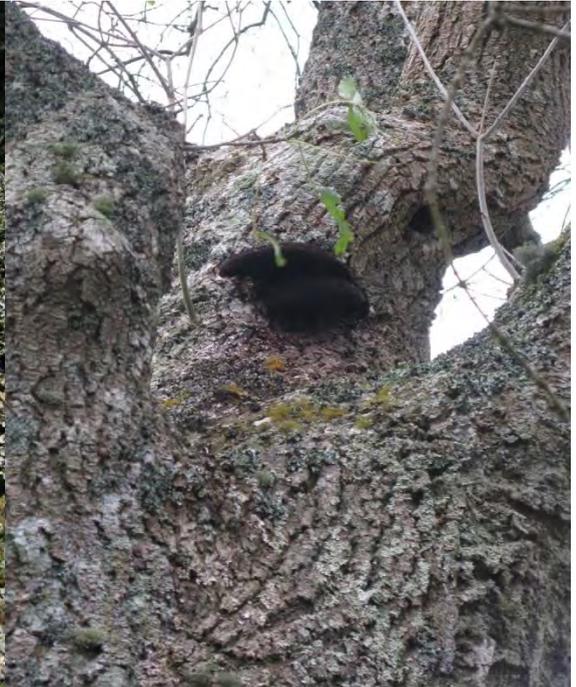
In 1996 it was decided this colony was robust enough to take samples for transplanting to nearby trees (Gilbert 1997). These have been monitored six times since 1997 with a 10 year gap between 2002 and 2012.

The main population is still in the same situation in 2014 and we estimated about 40 tufts at 5m and counted 13 below in the same runnel to the base of the tree. It appears that although the lower tufts are not in exactly the same place the population remains mobile but stable. In 2014 it was noted that a large decaying bracket fungus is on the trunk just above the main area of *Teloschistes*. The lichen has become discoloured under the run-off from the fungus and it was hoped that it would recover when the fungus had completely disintegrated.

In January 2015 the site was revisited. The fungus had fallen off leaving a black runnel in which all lichens seemed to have disappeared. This has depleted the population of *Teloschistes* but it is still present at each side of the black streak.



Teloschistes above the fork on the donor ash, Lincombe, summer 2004. The arrow shows the situation of the bracket fungus which formed in 2014.



Decaying bracket fungus 5m from the ground in November 2014. *Teloschistes* is difficult to see as it is greener in winter.

Small patches of *Arthonia anombrophila*, *A. pruinata* and *Strigula taylorii* could have been overlooked previously but the apparent disappearance of such a common species as *Pertusaria pertusa* was puzzling. Despite earlier thoughts that *T. flavicans* belonged to the Xanthorion community, Gilbert & Purvis (1997) found that this was not the case. Although *X. parietina* and *Physcia tenella* were common on the branches of the trees with *Teloschistes*, they were still extremely rare and poorly developed. The shade tolerant species *Enterographa crassa* is also rare.



Jan 2015. The fungus has fallen leaving a black runnel where most lichens appear to have disappeared. *Teloschistes* can be seen beside the runnel.

Receptor tree, Lincombe

An ash on the lower side of the track was chosen to receive two transplants. Over the time this site was monitored thalli of *Teloschistes* detached from the original pieces of bark and established themselves on the trunks below. These thalli were hardly visible for nearly a decade. By 2014 four thalli remained on the bark plate of the south facing transplant with three tufts on the trunk beside. From the second bark plate a centimetre sized tuft and nine smaller thalli have colonised the trunk below.



The purple pin (arrow) shows the place of the original bark plate. The other pins, show where *Teloschistes* has colonised the trunk below. The largest tuft is 1cm long.

Acknowledgements

Thanks to Nicola Bacciu for help at Uggaton Farm and Hannah Gibbons at Lincombe.

References

- Benfield, B. (2001). *Lichen Flora of Devon*.
Gilbert, O. (1995). *Audit of Teloschistes flavicans in South-West England*. Report to English Nature.
Gilbert, O. & Purvis, W. (1996) *Teloschistes flavicans* in Great Britain: distribution and ecology. *Lichenologist* 28: 493-506.

In his final paragraph, (Gilbert 1996) it was considered that *T. flavicans* was incapable of colonising new sites but could spread locally. Fortunately this has proved true at Stokenham. Although it has gone from the row of decaying sycamores and wood edge it was discovered on trees in the adjacent paddock and is prolific in a walled orchard nearby. Prior to this discovery, it had not been seen on orchard trees in the South-West since 1969, (Gilbert 1996).

Lichen transplants have had mixed results but the study in East Devon has shown that it can be successful if the donor tree is chosen with great care. Oliver championed *Teloschistes flavicans* and understood most of its requirements. Even then it was not always possible to predict how local changes in the surrounding environment would evolve to the detriment of this beautiful, declining lichen.

Gilbert, O. (1997) *Species Recovery programme project: Golden Hair Lichen Transplant Trials. (Teloschistes flavicans).*

Holmes, H. (1886). *Victoria County History of Devon.* London.

Barbara Benfield

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| | Uggaton Farm | | | | | | | | Lincombe | | | | | | |
|--------------------------------|--------------|----|----|------|----|----|----|--|----------|----|----|------|----|----|--|
| | 97 | 98 | 99 | 2000 | 02 | 12 | 14 | | 97 | 98 | 99 | 2002 | 12 | 14 | |
| <i>Teloschistes flavicans</i> | * | * | * | * | * | * | 0 | | * | * | * | * | * | * | |
| <i>Agonimia tristicula</i> | | | | | * | * | * | | | | | | | | |
| <i>Amandinea punctata</i> | | | | | * | | | | | | | | * | | |
| <i>Anisomeridium biforme</i> | | | | | | | * | | | | | | * | | |
| <i>Anisomeridium polypori</i> | | | | | | | * | | | | | | * | | |
| <i>Arthonia anombrophila</i> | | | | | | | | | | | | | * | R | |
| <i>Arthonia radiata</i> | | | * | | * | | * | | | | | | | | |
| <i>Arthonia pruinata</i> | | | * | * | * | * | * | | | | | | | R | |
| <i>Bacidia laurocerasi</i> | | | | | | | | | | | | * | * | | |
| <i>Cladonia coniocraea</i> | * | | * | * | * | * | * | | | | | | | | |
| <i>Candelaria concolor</i> | * | | | * | * | * | * | | | | | | | | |
| <i>Chrysothrix candelaris</i> | * | | | * | * | | * | | | | | | | | |
| <i>Cyphelium inquinans</i> | | | | | * | | | | | | | | | R | |
| <i>Cliostomum griffithii</i> | | | | | | | | | | * | * | * | * | | |
| <i>Diploicia canescens</i> | * | | * | * | * | * | * | | * | * | * | * | * | * | |
| <i>Enterographa crassa</i> | * | | | * | | | | | | | * | | * | R | |
| <i>Evernia prunastri</i> | | | | | * | | | | | | | | | | |
| <i>Flavoparmelia caperata</i> | * | * | * | * | * | * | * | | * | * | * | * | * | * | |
| <i>Hypotrachyna revoluta</i> | * | * | * | * | * | | | | * | * | * | * | * | * | |
| <i>Lecidella elaeochroma</i> | * | | * | * | * | | * | | | * | | * | * | | |
| <i>Lecanora chlarotera</i> | * | * | * | * | * | | * | | * | * | * | * | * | * | |
| <i>Lecanora expallens</i> | * | * | * | * | * | | | | * | * | * | * | * | * | |
| <i>Melanelixia subaurifera</i> | * | * | * | * | * | | | | * | * | | * | * | * | |
| <i>Melanohalea elegantula</i> | | | | | | | | | | | | | * | | |
| <i>Normandina pulchella</i> | * | * | * | * | * | * | * | | * | * | * | * | * | * | |
| <i>Ochrolechia subviridis</i> | | * | * | * | | | | | | * | * | * | * | | |
| <i>Ochrolechia turneri</i> | | | | | | | * | | | | | | | | |

| | Uggaton Farm | | | | | | | | Lincombe | | | | | | |
|--------------------------------|--------------|----|----|------|----|----|----|---|----------|----|----|------|----|----|--|
| | 97 | 98 | 99 | 2000 | 02 | 12 | 14 | | 97 | 98 | 99 | 2002 | 12 | 14 | |
| <i>Opegrapha atra</i> | | | | | | | * | | | | | | * | | |
| <i>Opegrapha corticola</i> | | | | * | | * | * | | | | | | | | |
| <i>Opegrapha varia</i> | | | | | * | | * | | | | | | * | | |
| <i>Parmelia saxatilis</i> | * | * | * | * | * | | | | | | | | | | |
| <i>Parmelia sulcata</i> | | | | | | | | * | * | * | * | | * | | |
| <i>Parmelina pastillifera</i> | | | | | * | | | | | | | * | | | |
| <i>Parmotrema perlatum</i> | * | * | * | * | * | * | * | * | * | * | * | * | * | | |
| <i>Parmotrema reticulatum</i> | | | | | | * | * | | | | | | | | |
| <i>Pertusaria albescens</i> | | * | | * | * | | | * | * | | * | * | | | |
| <i>Pertusaria albescens</i> | * | * | * | * | * | | * | | | * | * | | * | | |
| <i>Pertusaria coccodes</i> | * | * | * | * | | | | | | | | | | | |
| <i>Pertusaria hymenea</i> | * | * | * | * | * | * | * | * | * | * | * | * | * | | |
| <i>Pertusaria pertusa</i> | * | * | * | * | * | | | * | * | * | * | * | | | |
| <i>Phlyctis argena</i> | * | * | * | * | * | * | * | * | * | * | * | | * | | |
| <i>Physcia adscendens</i> | * | | * | | | | | | | | | | | | |
| <i>Physcia aipolia</i> | | | | * | | | | | | | | | | | |
| <i>Physcia tenella</i> | | | | * | | | | | | | * | | * | | |
| <i>Physconia distorta</i> | | * | | * | | | | * | * | * | * | * | * | | |
| <i>Punctelia subrudecta</i> | * | * | * | * | * | | | * | * | * | * | * | * | | |
| <i>Pyrenula chlorospila</i> | | | | | | | | | | * | * | | * | | |
| <i>Pyrrhospora querna</i> | | | | | | | * | | | | | | | | |
| <i>Ramalina canariensis</i> | * | * | * | * | * | | | | | | | | | | |
| <i>Ramalina farinacea</i> | * | * | * | * | * | * | | * | * | * | * | * | * | | |
| <i>Ramalina fastigiata</i> | * | * | * | * | * | | | | | | | | | | |
| <i>Rinodina roboris</i> | * | * | * | * | * | * | * | | | | | | | | |
| <i>Schismatomma decolorans</i> | * | * | * | * | * | * | * | * | * | * | * | * | | | |
| <i>Strigula taylorii</i> | | | | | | | | | | | | | * | | |
| <i>Usnea cornuta</i> | | | | | | | | | | * | * | | * | | |
| <i>Xanthoria parietina</i> | * | * | * | * | * | * | * | | | * | * | | * | | |

Peltigera neckeri in the north-west Pennines: from small beginnings to useful finds



A chance find in March this year of two very small loose fragments of *Peltigera neckeri* bearing the characteristic blackish apothecia started me out on a hunt for this somewhat elusive species. The site, Loo Gill, is an upland valley draining westwards below Hartside, the 624 metre summit of the Pennine scarp near Penrith, Cumbria. Frustratingly, there was no sign of a colony where I found the material - which I had to conclude was wind-blown from somewhere not too distant, possibly upwind - though strong and turbulent winds blow here from many quarters! As the species is known to occupy mineral-rich soils, some tips and other remains of WWII mining (for barytes) to the north of my find, seemed worthy of exploration: however these yielded nothing. A return to the equally logical solution of more a more south-westerly source eventually proved productive: on steep and somewhat hazardous rock/soil terraces on the north side of the Gill, about 200 metres from my original find, was an area about a metre square which had several patches of *P. neckeri*, most of them fertile. I could find no more anywhere around this point. Nonetheless, this was a good find: as Janet Simkin confirms, this is the most westerly from the



Loo Gill, looking north: arrow indicates terraces where *P. neckeri* occurs

northern Pennines, which have the greatest concentration of records of this species in the UK. The soils where I found the species almost certainly have some degree of base-richness, with bands of limestone alternating with sandstones. (Another uncommon species, *P. leucophlebia*, has a number of colonies here on the Limestone.) One of the issues with *P. neckeri* is the identification of non-fertile material: my little *ad hoc* 'survey' developed my confidence in its 'jizz' and micro-habitats. The finds, including the first one, have added five locations in four new tetrads (one in a new hectad) – albeit always limited and isolated occurrences. Site altitudes have ranged from 370 - 450m. Brian Coppins and Chris Hitch kindly helped with comments on some of my material.

David Clarke

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A new combination: lichen-looking and mothing

It is a long while since anything mothy has appeared regarding the relationships between lichens and the *Lepidoptera* in these columns. Oliver Gilbert in his classic contribution to the New Naturalist Library, *Lichens* (2000) offered us a tantalizing glimpse into the world of moths seeking to introduce us to those species which have evolved particularly close relationships with lichens. Oliver loved the moth evenings he attended in Sheffield. I was twice at his home when the phone rang with the news of an imminent moth trap. It had him beaming from ear to ear, an expression of joy usually reserved for other occasions such as when little parcels of lichens (voucher specimens) – that he would usually open after breakfast – returned, buzzing with scribble and bold footnotes, appended with messages like ‘New to Britain’ or ‘retained in E’. Usually news of ‘a trap’ was my signal to pack the car and get back to Dorset pronto. I can still hear him now. ‘You’re missing out’, he’d say. ‘You’re missing out’.



The Light Knot Grass (*Acronicta menyanthidis*) from the Isle of Mull

Many years later while attending the first BLS aquatic lichens course run by Alan Orange at Blencathra in the Lake District (August –September 2006), Simon Davey discovered an MV moth trap under a huge pile of belongings in the back of his car and sought permission to operate it for a couple of nights. We were all invited to see

what had turned up under cover of darkness. Unfortunately, it was not until the penultimate day that I hauled myself out from beneath my warm duvet to see some of Simon's prizes. By the time I arrived the majority of the egg boxes had been inspected for moths but I was thrilled to see the Canary-shouldered Thorn (*Ennomos alniaria*) and the crisp jagged markings of some Antler Moths (*Cerapterys graminis*). There were several Pebble Prominent (*Notodomta ziczac*) and my very first Autumnal Rustic (*Eugnorisma glareosa*) characterised by black wing bars in rows like levitating



The Tree-lichen Beauty (*Cryphia algae*) a recent colonist

capstans. Over a lazy beer in the bar the same evening Simon waxed lyrical about an Anomalous Moth (*Stilbia anomala*) he had chased around his bedroom with his camera following its escape from a pot he had opened too widely. Ivan Pedley and Steve Chambers chipped in with stories of moths, particularly those with fascinating English names such as the day-flying Mother Shipton (*Callistege mi*), the Silver Y (*Autographa gamma*) and the rather spooky-sounding Old Lady (*Mormo maura*). I was

hooked. There was much talk of inaugurating a BLS *Lepidoptera* sub-group. Of course this is not as potty as it may seem. Ornithological societies are stacked to the rafters with sub-groups. Esteemed members of the BLS are known to have defected to moths, without so much as a by-your-leave or as you might say in lichen-speak: soredia: sorry! Oh dear! Since 2006 I have surprised myself with the magical moths I have seen whilst surveying for lichens. Things started rather modestly with a Yellow-line Quaker (*Agrochola macilenta*) on the Isle of Bute with Plantlife Link. In SW Ireland I got to grips with the *Epirrita* group with a little help from John Douglass who I'd primed to be on the look out for Autumnal and November Moths. The Isle of Mull in early May 2010 was cold and chilly but I was to discover and photograph lovely examples of the Light Knot Grass (*Acronicta menyanthidis*) and Powdered Quaker (*Orthosia gracilis*) in some mixed woodland amongst the leafy *Lobarion*. In Glen Dochart, Stirlingshire I stalked an Argent and Sable (*Rheumaptera hastata*) along a descending ridge of rock outcrops, while surveying a stream bed, and further east in Glen Lyon tiptoed through colonies of Chimney Sweeper (*Odezia atrata*) sunning themselves in marshy pastures above the river. Scottish moorland in June is alive with flotillas of Small Argent and Sable (*Epirrhoe tristata*) while in groves of birch woodland the stencilled profiles of the Welsh Wave (*Venusia cambrica*) lay motionless against peeling layers of silvered bark.



The Rosy Footman (*Mitochrista miniata*) typical form: a distinctive moth that is currently expanding its known range in Britain

In June 2007 I was recording from a shaggy birch in Perthshire with a particularly exotic preponderance of *Bryoria*, when a flawless delicately marked macro-moth came into sharp focus. Its shape reminded me of the Small Rivulet (*Perizoma alchemillata*) so I swiftly potted the little fellow in order to take a closer look at it back at the B&B. Using my field guide I identified the moth as a Heath Rivulet (a Nationally Scarce B species). I needed a good image for whoever was to referee my find but, at the foot of the Birks of Aberfeldy while pretending to be David Bailey it made a successful getaway, first into dense bracken and then out through the canopy of the wood. Gone! The two photos I had taken indoors were of decent quality but the Perthshire recorder disputed my ID naming several other species I'd most probably overlooked. Feeling thoroughly ashamed of my reckless identification I put the matter to bed thinking myself an utter twerp. Three months later I received an e-mail from the Perthshire recorder explaining that the image I'd sent him had been pinging around Scotland for what seemed like an eternity and had been seen by virtually the entire population!! Crikey I thought! However, the two most esteemed recorders were of the opinion that this was indeed a Heath Rivulet - in newly

emerged and perfect condition, unlike the faded specimens usually encountered. ‘RESULT’ I bawled... modestly.

So it was that I discovered pretty *tout de suite* that good field lichenology doesn’t necessarily equate with top moth finds. It does, however, lure us into some famously remote habitat which even the new generation of generator-juggling mothers would struggle to negotiate. But for those who love their ravines and upland rush-pastures there are still vast swathes of the Scottish Highlands unexplored for uncommon moths such as the Yellow-ringed Carpet (*Entephria flavicinctata*) and the Slender-striped Rufous (*Coenocalpe lapidata*). In woodlands the probability of finding a moth at rest on a tree has been calculated to be about 350:1. However, these odds are not as bad as they seem. You might get lucky. I’ve known people find the elusive Rannoch Sprawler (*Brachionycha nubeculosa*) on the first tree they bent to peer at. By the way, I am not suggesting that field lichenologists develop additional multi-tasking skills. Focussing on lichens growing in narrowly defined micro-habitats is hard enough as it is, but it is always helpful to carry a small plastic pot or two in the bottom of a rucksack for that unexpected collision of hand lens... and cryptically camouflaged moth.

Certain larger moths are rather keen on lichens (Table 1). The most recent of the lichen-feeding species to become an established resident is *Cryphia algae* the **Tree-lichen Beauty**. Prior to 1991 there had only ever been three records of the moth in Britain all dating back to the nineteenth century. This species is well established on the continent, but since 1991, this apparent inertia to recolonise trees in mainland Britain was broken by an unexpected flurry of records particularly in the south and south-east, with a large concentration of these centred on London. It appears to have come on the back of another invasion: the re-invasion of our towns and cities by bark-inhabiting lichens following improvements in air-quality. In 2002 five individual moths of the Tree-lichen Beauty were lured to the same Kentish garden. The story of the Tree-lichen Beauty is not unusual. According to Butterfly Conservation the organisation responsible for mapping Britain’s larger moths (Hill *et al.* 2010), many of the lichen-feeding ‘footman’ moths have also made remarkable territorial gains since the 1990s. For an insight into how rapidly this trend is gaining momentum visit the website of the Yorkshire Moth Group: www.yorkshiremoth.info, a county with more former lichen deserts (see Seaward & Giavarini 2007 for an example) than you could shake a hat at – whether you’re on Ilkley Moor... or not.

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Table 1 below provides an up-to-date list of all the British resident macro-moths with caterpillars wholly or partly dependent on lichens. A trawl through the field guides Clancy *et al.* 2012 and Waring *et al.* 2003 produced 22 taxa.

| Our native lichen-dependent macro-moths | | | |
|--|--|--------------------------|----------------------|
| Popular Name | Scientific name | Geographical bias | Flight period |
| Beautiful Hook-tip | <i>Laspeyria flexula</i> | S,WC | 6-8 |
| Brussels Lace | <i>Cleorodes lichenaria</i> | W,WC, (S,N) | 6-8 |
| Buff Footman | <i>Eilema depressa</i> | S,(C) | 7-8 |
| Common Footman | <i>Eilema lurideola</i> | S,C,(N) | 7-8 |
| Dew Moth | <i>Setina irrorella</i> | S,NW | 6-7 |
| Dingy Footman | <i>Eilema griseola</i> | S,(C) | 7-8 |
| Dotted Carpet | <i>Alcis jubata</i> | W,N | 6-9 |
| Dotted Footman | <i>Pelosia muscerda</i> | E | 7-8 |
| Four-dotted Footman | <i>Cybosia mesomella</i> | T | 6-8 |
| Four-spotted Footman | <i>Lithosia quadra</i> | SW & immigrant | 7-9 |
| Hoary Footman | <i>Eilema caniola</i> | SW | 7-9 |
| Marbled Beauty | <i>Bryophila domestica</i> | T | 7-8 |
| Marbled Green | <i>Nyctobrya muralis</i> | S | 7-8 |
| Muslin Footman | <i>Nudaria mundana</i> | T | 6-8 |
| Northern Footman | <i>Eilema complana</i> f. <i>sericea</i> | WC | 7-8 |
| Orange Footman | <i>Eilema sororcula</i> | S | 5-6 |
| Pygmy Footman | <i>Eilema pygmaeola</i> | E | 7-8 |
| Red-necked Footman | <i>Atolmis rubricollis</i> | S,WC,(N) | 6-7 |
| Rosy Footman | <i>Miltochrista miniata</i> | S,(C) | 6-8 |
| Round-winged Muslin | <i>Thumatha senex</i> | S,C,(N) | 6-8 |
| Scarce Footman | <i>Eilema complana</i> | S,C | 7-8 |
| Tree-lichen Beauty | <i>Cryphia algae</i> | S,SE | 7-9 |

Two of the moths mentioned in Gilbert (2000), the Marbled Grey (*Bryophila raptricula*) - a rare migrant, and the Speckled Beauty (*Fagivorina arenaria*) - last seen in Britain in 1872, are no longer resident in the UK so these do not appear in the above table. The symbols used to show geographical bias follow Waring *et al.* 2003.

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Here follow three tributes to David Galloway, from Per-Magnus Jørgensen, Gintaras Kantvilas and Allison Knight.....

David John Galloway (1942-2014), an appreciation of his life and work

When in the early morning of the 6th December 2014, David died of cancer, lichenology lost one of its foremost personalities, and I my best lichenological friend. It is a bizarre coincidence that our last contact concerned my obituary over Peter James. He reported that he was feeling weak, but hoped that the radiation treatment would bring some relief so that he might be able to work more on our mutual project (since the 1980-ies) on the 'History of lichenology'.



Fig.1 David Galloway in the Botanic gardens of Dunedin in 2006.
Photo: Lars Arvidsson

David (Fig.1) was born in Invercargill in the South Island of New Zealand. His father was of Scottish heritage. David became interested in lichens during his school time. He told that once when fishing with his father, he saw a strange plant (it proved to be a lichen in the genus *Cladia*, which looks rather like a terrestrial coral) growing on the river bank. He collected it and presented it to his chemistry teacher who said it was a lichen. He happened to know the then leading expert of the group in New Zealand, William Martin (1886-1975), with whom David finally came in contact. After finishing basic schooling, David went on

to the University of Otago, Dunedin, where he studied natural sciences and chose biochemistry as his major subject, of which he took a Ph. D. (in 1974). During these years he further developed his interests in lichens and collected wherever he went.

David loved to do field trips and was a keen mountaineer in his younger days. During his student years he met James Murray (1925-1961), who was senior lecturer of chemistry, but also a keen lichenologist. Murray had assembled a major lichen herbarium and had in letters to Peter James at BM in London, expressed a will to make a New Zealand Lichen flora, a book he greatly missed. Unfortunately Murray was killed in a car crash already in 1961. As a consequence of this, however, Peter James went to New Zealand (Galloway 2014) to go through the collections, and of course met David and at the same time could assist him in his attempts to understand the lichens, and David eventually published his first lichenological paper (Galloway 1964). I am convinced that David felt an obligation to conclude the project that Murray had started. He always spoke warmly about “Jas” and his importance for New Zealand lichenology, something he thought had not been fully appreciated.

In 1972 David got a Commonwealth Scholarship which enabled him to move to London to work at BM under the guidance of Peter James (Fig.2). It was here I first met him in 1973. I had an appointment with Peter, who had been forced to leave

on an urgent business, so David did his best to help me, which was quite difficult since I was so disappointed not to meet Peter (who turned up the next day!). But eventually we started to talk about lichens and he showed me some of his rich material in the *Pannariaceae*, which I by then had started to write a monograph about.



Fig.2 David Galloway in the garden of his first London home in Winchmore Hill with his wife Patricia and Peter W. James (to the right) about 1975. Photographer unknown.

Our first paper (Galloway & Jørgensen 1975) was on a new *Erioderma* which he had collected during a survey in The Three King's Islands, published in 1975. This led to further cooperation and a number of papers, the most comprehensive about the genus *Leioderma* (Galloway & Jørgensen 1987). Furthermore, David took great interest in the Stictaceae, where he produced important monographs on the *Pseudocyphellaria* (1988,1992) which are typical of his way of working, combining field experience with studies in the lab and at the microscope, as well as digging into the historic collections. They are among the most complete treatments of their kind and will, no matter what the increasing molecular evidence will disclose, be rich sources of knowledge for generations to come. Actually the last paper we wrote together (Jørgensen & Galloway 2011) was on the nomenclature of *Pseudocyphellaria*

resulting in a proposal to conserve the name with a type to cause the least nomenclatural changes as a result of the newly gained knowledge of the generic structure of the group (Galloway & Jørgensen 2011). Incidentally, I had complained to him about the lack of understanding of traditional taxonomy and nomenclature among the rushing young molecular scientists who thought everything could be solved by testing a few molecules. I added, “but be aware of that I have probably turned old and grumpy”. His reply made me smile: “I like being old and grumpy with you!”

He worked persistently on that seemingly herculean task of producing a lichen flora of New Zealand, and in spite of the vastness of data, he constantly dug deeper into both taxonomy, nomenclature and history. I sometimes wondered if he would ever manage to publish this book. How wrong I was! In 1985 the first issue was presented, and he managed even a more comprehensive and improved second edition (2007). As a flora this is unique in the richness of data, an inexstinguishable source of knowledge far beyond what the title indicates, a solid foundation for the future lichenology in New Zealand.

In addition to this he steadily contributed to the knowledge of lichens especially throughout the Southern Hemisphere. He was fascinated by the phytogeographical aspects of the region, and the many curious distribution patterns with remarkable disjunctions. In this he was greatly inspired by his great friend Eric Godley (1919-2012), the director of the botany department at the Landcare (1958-1981) who supported his work continuously. He was certainly also ideal for biographic work where David made many extraordinary contributions, including a history of lichenology in the region (Galloway (2008).

Naturally, such an engaged personality became involved in international activities, in fact he loved to take part. The highlight was the years when he was president of IAL (the international association for lichenology, 1987-1992). During that time he arranged a wonderful excursion to New Zealand (fig.3), my first and



Fig.3 David Galloway (to the left) at the IAL excursion with the group of international lichenologists at Boyle Lodge in 1981. Photographer unknown.

only visit to this lichen heaven, as well as the symposium about tropical lichens at BM in 1990, from which a most valuable volume was produced (Galloway 1991), one of the first with a focus on the tropics. He was awarded the Acharius medal by IAL in 2008, a well deserved honour for someone who had organized for a memorial plaque of this father of lichenology to be placed at his house in Vadstena in

Sweden (1992). David has also been honoured in several lichen names, including the genus *Davidgallowaya* from New Guinea.

Gradually we became close friends, also because of other mutual interests such as history and music. In fact David was a fine cellist but he had to give up after an accident in Lanzarote which disabled his left arm. He was also very interested in organs, and this led us to meet the jazz-legend Ella Fitzgerald during the symposium in Bristol (1975) where there is an old, fascinating instrument in the City Hall to which we were allowed access. Little did we know that this first Lady of Jazz had a rehearsal there. She was very kind and welcoming and David clearly impressed her by his knowledge of the instrument. Otherwise classical music was what he enjoyed most, not least opera, naturally since his wife Patricia Payne was a celebrated opera singer (contralto).

David was always a warm and generous host and I occasionally stayed with the Galloways in their home in Winchmore Hill which enabled us to work more or less continuously. We got up at 6 for a quick coffee and a toast to take the train to Kensington where we had a full English breakfast in one of the many small restaurants there and then plunged into the day's work at the museum, which was usually very intensive, and often loudly enthusiastic. After one of my visits, he reported that he had to take a few days off, to recover! He remained at BM even after having finished the flora, and became a staff member there, and finally appointed Head of the Lichen Division.

David and Patricia decided to my regret to return to New Zealand in 1994, and even took with them their lovely cat Nellie which unfortunately died after a long quarantine. I was therefore very surprised to learn that they some time later added a dog, Lily, to their family (Fig. 4). I had frequent reports on how things developed and it was quite amusing



to learn about the oncoming spring with rhododendrons and daffs

Fig.4 David Galloway with his wife Patricia and dog Lilly in Dunedin 2011. Photo: Gregory Richardson, Otago Daily Times (reproduced by their courtesy).

in our autumn. They first lived in Roxham, but finally settled in Dunedin when David got a researcher position at Landcare Research in Lincoln. He had some productive years with among other things a detailed monograph of the species-rich genus *Placopsis* (Galloway 2013), a genus he had been particularly interested in for many years. It was to be his last great lichenological masterpiece. He did, however, gradually engage more in the history of botany, among other things contributing to

the marking of the Darwin celebrations in New Zealand (Galloway & Timms 2010). And we finally, too late apparently, decided to complete our studies in the 'History of Lichenology', which we had decided to do after a meeting in the Linnean Society in 1982. We last met in Uppsala in August 2012 and settled the chapters of the book and divided them between us. We spent some lovely days at UPS and the University library (Carolina Rediviva) mining in many years of accumulated documentation of importance for the book. We also visited the nearby churchyard and paid visits to several of the deceased lichenologists buried there. This was the last time I saw him, and he went home to work on his part. He was busily working on the biographies of the New Zealand lichenologists when ill health interfered. He was studying all surviving letters etc. to document the course of lichenological history. I am not certain that he managed to finish Buchanan which he planned to complete before Christmas. He still, a few days before admission to hospital and after being made aware of his critical condition, was hoping that he would be mended to the degree that he might finish his parts. He was as ever optimistic, but alas, mistaken. But let me not dwell on what could have been made, and finish by rejoicing over all that he achieved in his too short life, nearly 400 publications (a bibliography up to 2006 is published by Arvidsson 2007), including several important books. He is and will be greatly missed!

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Vale David Galloway – personal recollections

David Galloway died in Dunedin, New Zealand, on December 6th, after a relatively short battle with illness. With this coming so soon after the death of his long-term friend and collaborator, Peter James, who passed away earlier in the year, 2014 was a bleak year for lichenology. The Southern Hemisphere lost two of its towering figures in but a few months.



Figure 1. The twin towers of Australasian lichenology: with Peter James, 1994.

There will be many tributes published for David, for such was his broad reach. His interests lay not just in lichenology but also in general botany, in history and other

disciplines. He was the consummate scholar. Another of his great skills was as a biographer. David wrote the best obituaries, and thus surely deserves the same himself. I feel this is an area in which I could not attain that standard, and so this piece is more a personal recollection of the David I knew and corresponded with for more than 30 years.

When I first began my lichenological journey, the generally acknowledged master of Australasian lichens was Peter James, and many tributes for Peter have been published recently, with some of the most thorough by David himself (e.g. Galloway 2014a, b). Quite early on, I learned of David, who was now based at the Natural History Museum in London, and working at full steam under Peter's guidance on what was to become his monumental *Flora of New Zealand Lichens* (Galloway 1985). Learning lichens in the early 1980s wasn't easy. I relied on early publications on New Zealand species (by William Martin, John Child, James Murray and others), the unpublished keys by Eilif Dahl, supplied generously on old-fashioned, "slimy" photocopy paper by Jack Elix, himself still a lichen fledgling, much personal tuition by letter from Peter James, and additional correspondence with Jack, Aino Henssen, Per Magnus Jørgensen, Toni Vězda and others. However, by then David's papers dealing with selected groups were also starting to appear, and slowly, groups such as *Baeomyces* (Galloway 1980a), *Coccocarpia* (Arvidsson & Galloway 1979), *Stereocaulon* (Galloway 1980b), *Degelia* (Arvidsson & Galloway 1981) and others began to shed their mystery.

I still have my first letters from David, written in 1980, which were as much a welcome to the lichen family as offers of help:

"Dear Gintaras", he wrote, "Lichenologists always tend to use first names, a very admirable thing, I think – mine is David." And elsewhere: "You are in good hands in corresponding with Peter James (he started me off in lichens) but if there is anything that I can do to help I should be most happy to."

Throughout his life, David's letters were creative works of prose: long, often effusive, well written and punctuated, full of news and observations, and signed with his trademark, large, bold signature. The advent of email saw the disappearance of that signature, but the literary style remained. I cannot imagine that David ever tweeted or texted.

The *Flora*, published in 1985, changed Southern Hemisphere lichenology as never before. I had the honour of reviewing it for the *Lichenologist* (Kantvilas 1986), as well as reviewing its extensively revised and rewritten second edition many years later (Kantvilas 2008). There for the first time was a comprehensive account of seemingly the entire flora between two covers (rather than dispersed through hundreds of hard-to-find papers) and in English too! Of course the book had its limitations, and David was the first to admit this. As he wrote in his "Introduction", his aim was "to have available quickly a working flora, warts and all, as a basis for informed future fieldwork, without postponing the work indefinitely until New Zealand's lichens were more completely known" (Galloway 1985). I recall one senior lichenologist (now himself departed) observing, rather uncharitably, that "David

Galloway does his taxonomy with a brush so broad he needs both hands to wield it”, but in truth, anything but that broad brush would not have seen the project completed. It is also true that David liked his lichens big. He enjoyed a *Pseudocyphellaria* as large as a serving platter ahead of sectioning the apothecium of a crustose lichen and staining its asci. Perhaps the greatest legacy of this book was that



Figure 2. With Per Magnus Jørgensen at the Natural History Museum, London, 1994. Together, David and Per Magnus made enormous contributions to the knowledge of austral Pannariaceae. When these two close friends were at full throttle on some lichen problem, the crypt reverberated with their voices and energy.

it brought together all the names based on New Zealand types, and cited their details and where they were held. This information, together with Rex Filson's *Index to Type Specimens of Australian Lichens* (Filson 1986), set the future study of Australasian lichens on a sound course. With his bent for history, David was in seventh heaven in the Natural History Museum where most of the literature and specimens underpinning Australasian lichenology were housed. He also travelled widely in Europe, often, I believe, accompanying his wife, Patricia, who was a professional opera singer, and he used those opportunities to explore the major continental herbaria.

I first met David at the International Mycological Congress in Regensburg in 1990. He had invited me to present an oral contribution (my first to an international audience) in a biogeography symposium (another of his numerous "special subjects"). He was also the President of the International Association for Lichenology at that time, and cut an imposing figure. He was a real presence, a personality and a performer, and no room or stage seemed too big for him. Later that

same year, I visited London and the NHM for the first time. Peter James had just retired and David was his anointed successor. Peter and I dined with him and Patricia at their house in Chingford. There I discovered further dimensions to David's persona: a love of gardens, of cats, and of a good joke.

In 1994, I went to London again, this time as the inaugural Banks Alecto Fellow at the NHM. I spent almost five formative months there, working through the mass of specimens, literally from A to Z, making annotations of types and other reference material, chiefly of crustose lichens from the Southern Hemisphere. Much of this work was retreading the path trodden by David more than a decade earlier, and lots of the specimens had his annotations slips, again in a very extravagant handwriting. It was a busy and exciting time in the lichen section: Sergey Kondratyuk was a visiting researcher from Ukraine, Per Magnus Jørgensen also a frequent visitor, and then there were the "locals": William Purvis, Peter James, Pat Wolseley, Kerry Dalby, Kate Pryor, visits from Brian and Sandy Coppins, Francis Rose and others. And of course there was David himself. He would love to come down to "the crypt" where the lichens were housed from his office upstairs and look over people's shoulders and chat about various matters, but I must admit that at the first sign of a section of an ascus apex or a stained excipulum, and he vanished back up to his room.



Figure 3. With fellow lichenologists on the steps of the Natural History Museum on his last day of work. From left: Sergey Kondratyuk, David, William Purvis, Gintaras Kantvilas and Peter James.

Being introduced to the Museum and its staff by David in my first days there remains a memorable experience. The place was a labyrinth, and posed serious issues for the novice in terms of coming and going, especially as in those halcyon days one could

come and go at any time, even after midnight! I think David must have deliberately shown me the most complicated routes – ones that involved maximum numbers of doors that needed unlocking, narrow stairs to be negotiated, tiny, cramped lifts to be summoned, and sharp turns in the seeming maze of basement corridors at landmarks like a stuffed lion and a stuffed giraffe; one route even led across the roof. He also introduced me to dozens of people, all of whom he maintained were famous for something or other, and most of whom I never saw again. Not for David was it to introduce me to essential staff such as the office ladies, the librarian or the laboratory manager.

In the course of my Fellowship, David resigned his post to return to New Zealand. It was a shock to all, not least to Peter, who had high hopes that David would somehow devote all his life to living in London – an impossible ask of anyone from the clean, fresh, landscapes of the Southern Hemisphere, let alone from almost anywhere else. We had a farewell lunch at a public house called the Rose (now defunct). It was a very ‘David’ venue, not a typical London pub with ale and chips at all but a bit posh and in the Kings Road in Chelsea; it was a terribly long walk back to work if one had a full bladder of ale! The last time I saw him was with Per Magnus, when we visited David and Patricia at their now-rented home in north London for supper. Their English life was now essentially packed into boxes. David walked Per Magnus and me to the train station late that night, but didn’t linger. I never saw him again. Even though we corresponded regularly, collaborated on a few projects and even spoke on the phone, our paths never crossed after that night. He was rather elusive in that way, and quite evasive and loathe to make a commitment to meet up. The saddest irony was that an evening spent conspiring with some New Zealand colleagues about how I would finally catch him unawares on his home ground was the very same evening that I later received his email bearing the grim news of the first signs of serious illness.

David Galloway was a remarkable scientist. His is such a legacy that it seems inconceivable that it will ever be matched. His *Floras* are amongst the first publications that I consult. Thanks to his efforts, the New Zealand lichen flora is as well documented as any other, and whilst new discoveries keep turning up, there is now a context for where they are placed. He personally named scores of new species, and clarified the nomenclature of probably hundreds. His last major project was on *Placopsis* – probably one of the last of the big groups of “big” lichens that needed revision (Galloway 2013). There is no doubt that were it not for David, Australasia would not have played the prominent role that it did in the world-wide resurgence of lichenology.

Lichenology confers relatively few public honours. However, in 2007, his colleagues published a Festschrift- a collection of scientific papers- in his honour, and in 2008 he was awarded an Acharius medal. Many lichen species bear his name, including the stunning *Caloplaca gallowayi* S.Y. Kondr. *et al.*, which is responsible for the vivid orange-red banding seen around the coasts of southern Australia.

David was also remarkable man – incredibly supportive and generous in his praise; he could also be potentially cutting with his criticism, not that I personally ever experienced that. Whenever I sent him a reprint of a new publication, he would

respond promptly with praise and thanks, pointing out some personal highlight for him in your work and how it had somehow helped him clear up a problem he had been grappling with. A particularly touching response came when I named a species of *Menegazzia* in his honour (together with others in honour of the late Tasmanian Geoff Bratt and Jarle Bjerke from Norway) (Kantvilas 2012). It deserves quoting at length.

“Dear Gintaras. Well my friend you have taken my breath away! THANK YOU for naming a species of *Menegazzia* after me – I am very touched indeed at your thinking to do this. And it is such a NICE paper – just the kind of paper I like reading – no cladograms, no molecular data, no "impossible" figures or tables. Instead, clear, logical, well-expressed prose – everything that a good paper should be in my view. And to be sharing it with three friends, the author (GK), Jarle Bjerke and Geoff Bratt – well it couldn't get any better than this. So my heartfelt thanks again.

It rather sums up David: appreciative and generous, prone to more than a little poetic licence, and very much aware of his place in the rich pageant of lichen history that he loved to write about. It is sobering and tragic how suddenly his productive life came to an abrupt end. As recently as about a week before his death, he wrote of projects he intended to finish. Also in his plans had been a History of Lichenology symposium he was helping to organise for the next IAL meeting in Helsinki in 2016. That he is now a part of this history, rather than leading from the front is a matter of much sadness and regret.

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(1942–2014)**

David first became interested in lichens as a schoolboy, when he was enraptured by the lacy *Cladia retipora* (Fig. 1) in the Awarua wetlands. This led to his collecting *Cladia* and *Cladonia* for William Martin, who was studying these genera. By a strange coincidence, my fascination with lichens also began in Invercargill schooldays, in the same bog, finding the same intriguing lichen growing in profusion - so spongy when wet, so brittle when dry. Our time at the University of Otago also followed similar trajectories, studying natural and health sciences and spending as much time as possible in the mountains while completing a PhD. David was so fortunate that James (Jas) Murray, a lecturer and expert in lichen chemistry, was there to mentor him, and he was devastated when Jas was killed in a motoring accident – a great loss to New Zealand and Southern Hemisphere lichenology. Luckily for David, this unfortunate accident led to Peter James being invited to come to New Zealand for six months to curate Murray’s extensive lichen collections and to assist with several papers that Jas had been preparing for publication. David was given a summer job helping Peter, and so began Peter’s outstanding mentoring of David and of fostering New Zealand lichenology.

In 1972, William Martin and John Child published a book on New Zealand lichens, well illustrated by John’s photographs (1). It refers to 300 of the 1400 species then thought to be indigenous to New Zealand, and acknowledges David’s help in improving the manuscript. The strikingly coloured lichens in this popular book, and adorning John’s mantelpieces and windowsills, further stimulated my interest in lichens. By this time David was working in the Applied Biochemistry division of DSIR (Department of Scientific and Industrial Research). Finding Biochemistry not

to his liking, David was able to transfer to the Botany Division of DSIR at Lincoln. Here Eric Godley, the astute Director, recognised David's bent for lichens, and in 1973 sent him to the British Museum to begin work on compiling a Flora of New Zealand lichens.



Fig. 1 *Cladia retipora*, Fiordland, New Zealand. The first lichen recognised by David. Photo: Allison Knight

Thus started David's 22 years of remotely examining herbarium specimens of New Zealand lichens, building on the great legacy of the father of New Zealand lichenology, Charles Knight 1808–1891(2). When funding from the DSIR ended in 1982 he became a Senior Research Fellow in the Natural History Museum in London, and from 1987 to 1994 held the position of Head of the Lichen Division. From this base David made many useful contacts with lichenologists around the world. He extended these contacts while he was President of the International Association for Lichenology from 1987 to 1992, and when he accompanied his wife Patricia, an internationally acclaimed opera singer, on tours around Europe and beyond. These tours gave David the opportunity to study New Zealand lichens in many long-established herbaria abroad.

David's first *Flora of New Zealand Lichens* (3) was published in 1985, with Peter James' inestimable help, expert peer review and assistance from many collectors back in New Zealand. Two of these New Zealand collectors, Glenys Hayward and Peter Johnson, would go on to publish significant papers on New Zealand lichens. This Flora discussed 966 taxa in 210 genera. David estimated that this was only 60% of

lichens to be found in New Zealand, and began gathering information for a revised flora.

In 1994 David returned to New Zealand and in 1996 commenced work on a second edition of the Flora. Soon after, he gave a talk in the Biochemistry Department, where I happened to be working, and encouraged listeners to collect and bring him lichens for this revision. I took up the challenge, and on a family trip to Dusky Sound persuaded the rest of the family that we should stop for an extra day at each hut along the way so that I could collect lichens for David. These included a species of *Leptogium* that was new to New Zealand (4). There followed a brief period where, for an hour a week, David would identify the lichens I had collected for him while I wrote out the packets for the Otago herbarium (OTA).

Sadly, he became too busy to share his time, but happily he introduced me to Jennifer Bannister. David had helped her curate the JS Thomson collection in OTA, still an unfinished work. Jennifer became a great mentor and friend to me. About this time Dan Blanchon was revising the genus *Ramalina* for his MSc thesis, encouraged by David. Jennifer built on Dan's study, with her husband Peter, who was the Head of the Botany Department at Otago University. Over several years they took every available opportunity to travel the length and breadth of the country, including several offshore islands. Together with Dan they produced the only systematic distribution of a lichen genus in New Zealand (5) and several other significant papers. I enjoyed collecting specimens from the more remote places that I visited, and especially spending a whole morning each week with Jennifer in the Otago Herbarium identifying lichens. Occasionally David would drop by and help us confirm an identification, or introduce a distinguished visitor from overseas. During this time we ran several small workshops on lichens for the Botanical Society of Otago, and, inspired by Pat Wolseley's work, produced a key to lichens growing on twigs in Dunedin.

Meanwhile David had become interested in revising the genus *Placopsis*, and I began carrying heavy loads of *Placopsis*-coated rocks over many mountain passes, and persuaded my tramping companions to help with the load. I brought back more than one new species from these expeditions. David told me he was going to name a striking orange one *P. allisoneae*, but a Festschrift for Jack Elix came up, and *P. elixii* took precedence. The esteem in which David himself was held by international lichenologists was demonstrated by the compilation of volume 95 of *Bibliotheca Lichenologica*, published in celebration of his 65th birthday in 2007.

I was stimulated to take up photographing lichens using an early model digital camera, hoping to help add to the available images of New Zealand lichens. Bill Malcolm's superb photographs and illustrations, including those in the 1997 lichen checklist, key and illustrated glossary, published with David as co-author (6) were already proving very useful. In 1999 David began advising Tina Summerfield's PhD thesis on the photobiont partners of various cyanobacterial *Pseudocyphellaria* species, and I took her into the field to help her recognise and collect *P. crocata*. Cyanobacteria still play a large part in Tina's notable research.

Ten years later the revised second edition of the *Flora of New Zealand Lichens* was published in two hefty volumes, 2261 pages in all (7). It did not include any descriptions of the 996 taxa that had already been published in the 1985 Flora. The revision treated 1706 taxa of lichens and lichenicolous fungi in 354 genera, with 16 illustrations. The extensive bibliography ran to nearly 200 pages. For one man this was a phenomenal compilation of all that was known about New Zealand lichens. In recognition David was awarded the Acharius medal by the International Association for Lichenology in 2008 and in 2010 he was awarded the Hutton medal by the Royal Society of New Zealand. Understandably, in order to single-handedly cover such a wide field, David—as Gintaras Kantvilas said at the commemoration service—“painted with a brush so broad that he had to hold it with two hands”. His monumental work has created an impressive framework for future lichenologists to expand on, to flesh out the details, and to make the keys more user-friendly.

At the same time as the printed 2007 Flora was released, Landcare Research had the foresight to make the 1985 Lichen Flora and the two volumes of the revised flora available online (8). This excited lichenologists around New Zealand, as it had the potential to be a living document which could be updated as new knowledge came to hand. I was particularly excited, because it also became possible to add colour images, and to link them to the species descriptions. David, however, saw no need for further illustrations. Instead, because he estimated that he had covered only 75–80% of the lichens to be eventually found here, he concentrated on updating a New Zealand checklist and continuing to work on NZ *Placopsis* and Southern Hemisphere *Lobariaceae*.

In 2009 Peter de Lange persuaded a group of us to get together to compile a ‘threat list’ giving the conservation status of every lichen known in New Zealand, including an updated checklist of changed or new lichen names. It covered 1799 formally accepted taxa, 975 of which were listed as “data deficient”, indicating that too little was known to assign them a conservation status. David’s input to this analysis was invaluable. The resulting paper was published in 2012 (9). Peter enjoyed several other fruitful collaborations with David, particularly on the lichens of the outlying Chatham and far-north Kermadec islands.

Lars Ludwig was David’s most recent protégé. David helped Lars to get a British Lichen Society Summer Scholarship to work on the ecology of the beautiful and threatened lichen *Icmadophila splachnirima* (Fig. 2), and then helped him obtain a University of Otago Scholarship to do a PhD on the same subject. Lars expanded the topic to include the reproductive strategies of other *Icmadophilaceae*, and made several important discoveries along the way. This included the first recognition of sexual reproduction in a globally dispersed genus that has been long accepted throughout the world as completely sterile. Even the Flora dismisses these apothecia as infection by a lichenicolous fungus. Sadly David did not get to see Lars complete this exceptional thesis.

Along the way David found time to participate in a Bioblitz at the Auckland Museum, and another at the Dunedin Botanic Garden. There, together with a subsequent workshop I ran in conjunction with the Botany Department’s 90th Anniversary, we recorded over 100 taxa. David estimated that there were another

100 taxa to be found in this small area, and was hoping to document them over the following summer.



Fig. 2 *Icnadophila splachmirima*, Swampy tarns, Dunedin, New Zealand. Another enduring favourite lichen of David's. Photo: Allison Knight.

David's 195-page *Aspiciliopsis* and *Placopsis* monograph, published in 2013, was well illustrated, with many of the photographs taken by Janet Ledingham (10). 100 copies were printed. Janet's association with David, which started in 2004, did much to expand his horizons, as she could drive him to field sites, take photographs of specimens and format images for him. They were working on a book on Dunedin Lichens and, together with Leo Sanchez, on a large paper on *Umbilicaria* when David died. David was so immersed in lichens to the end that he left much unfinished work, including a planned international "history of lichenology", a popular book on New Zealand lichens and checklists of several under recorded areas of New Zealand.

The extensive Galloway lichen collection is nationally and internationally significant. This legacy of a leading Southern Hemisphere lichenologist is irreplaceable and hugely important, and incorporating it into the Otago and Landcare (CHR) herbaria should be a priority. David's 2014 draft New Zealand checklist is still a work in progress, and there is much to be done to update the online Flora. It would be a fitting appreciation of David's enormous contribution to lichenology if lichenologists from around New Zealand—and around the world—could work together to ensure that this update is as thorough as possible.

Afterword

At the beginning of 2014, still convinced that “one picture is worth a thousand words”, I published a small introductory guide to New Zealand lichens, containing images of 250 taxa (11). This work was inspired by David’s Flora, which was an essential reference. A more extensive illustrated book is planned and an updated Flora will be essential to that. As Peter de Lange said, “It’s going to be really hard to continue the work David started but we New Zealanders owe him that much—his work must continue”.

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Punctelia reddenda is doing well

Punctelia reddenda is doing well after transplantation at a solitary birch in a front garden in the Netherlands, far away from the oak where it was collected.



Punctelia reddenda attached to *Betula* in the front garden

In the summer of 2009 *Punctelia reddenda* was found in the Netherlands for the first time (Spier & van Dort, 2009). It was collected from a horizontal branch of *Quercus robur*, near the village of Wolfheze in the eastern part of the country which is not known for its pure environment. The branch was covered with common light-demanding lichens such as *Hypotrachyna revoluta*, *Punctelia borrieri*, *Parmotrema perlatum* and *Flavoparmelia caperata*. The presence of nitrophytes such as *Candelariella reflexa*, *Physcia tenella* and *Candelaria concolor* indicates raised levels of nutrients.

The deciduous oak (in height 10 m, in diameter 0.3 m) at Wolfheze stood at the edge of a small *Calluna* dominated heathland on a slight slope, facing north-west surrounded by oak woodland and conifer plantations on dry, nutrient-poor, sandy soil. Among the *Calluna* some cushions of *Sphagnum capillifolium* and *S. fallax* were present, suggesting a high atmospheric humidity in the surroundings of the phorophyte.

Punctelia reddenda is a member of the *Lobarion* (Smith *et al.*, 2009) which is known as an extremely sensitive lichen community in sheltered, and often shaded situations, preferring damp habitats with high rainfall, especially coastal areas. It is known as an old woodland indicator which usually grows on the bark of broad-leaved trees, but will also grow on rocks. *Lobarion* species prefer unpolluted environments and are declining all over Europe as a result of forestry and air-pollution, particularly acid rain (Dobson, 2005). In the Netherlands this lichen community disappeared ages ago.

In the field it was not possible to identify this *Punctelia* accurately, so we collected two specimens from broken off branches which were lying under the tree. After identifying the samples at home as *Punctelia reddenda*, part of it was put in the herbarium of the first author. As we did not want to throw the rest away, a small sample was stuck with a drawing pin to an apple tree in the back garden. Another one was fastened to a birch in the front garden of the house of the first author, because there is no oak available. There was little hope that this *Punctelia* would survive. It was not even thought of then! After a few months, however, the one in the back garden was completely gone. The sample in the front garden was still alive and appeared to be doing well, which gave hope.



'*Lobarion*' in front garden at Amersfoort

The air quality of the site at Wolfheze is relatively good by Dutch standards. The SO₂ concentration has greatly decreased, the same holds for NH₃ deposition values (van Herk, 2004). Still the air is far from pure and definitely not optimal for *Lobarion* species. *Punctelia reddenda* should not simply be there.

The ecological situation, if any, in the front garden at Amersfoort is completely different from *Lobarion*, and from the one at Wolfheze. The garden is 5x 5 meters, low plants covering it completely, and just one mature birch, on which a.o. *Flavoparmelia caperata*, *Punctelia subrudecta*, *P. jeckeri* and *Parmelia sulcata* are growing. A stretch of grass, about as large as a football field, lies very close in front of it. So, it is certainly not a mossy, humid, shaded habitat in which *Punctelia reddenda* is usually found.

We were very much surprised to see after six months that the transplanted *Punctelia* on *Betula* was doing well. It was hardly possible! And now, after 5 years, lobes of it are colonizing the surrounding bark. Over the years it stayed healthy and succeeded in growing under very different circumstances.

Two cases of successful transplantations with *Lobaria pulmonaria* are known to us. The Swiss lichenologist Christoph Scheidegger carries out experiments with the

species (pers. comm. André Aptroot), and he keeps monitoring their development. In a mail Scheidegger writes: ‘Your experiment looks promising, though the most important step is usually when the lichen has to jump on the new substrate’. This dream is going to be true, though ‘jumping’ seems to be an exaggeration. About 10 years ago, *Lobaria pulmonaria* was transplanted on *Fraxinus* in the Neandertal (Frauenhofer Steinbruch, Germany) by the Institut für Botanik der Universität Dusseldorfs as part of an ecological experiment, and after so many years it still looked healthy (van Dort, 2011).

On the internet (transplants lichens) one may read a series of articles on transplanting lichens (*Evernia prunastri*, *Pseudevernia furfuracea*, *Parmelia sulcata*), especially as part of monitoring programs. It often deals with heavy metals, but also with SO₂, NH₃, NO₂, O₃, CO₂ and other pollutants. Under controlled conditions the species is transplanted from a ‘clean’ to a ‘polluted’ area and is monitored.

In our case we are inclined to say that the survival of *Punctelia reddenda* on the birch is sheer luck. It was certainly not planned, and there were no controlled conditions. Why did one die, and the other survive? How is it possible that such a sensitive lichen as *Punctelia reddenda* crops up in a more or less polluted area on *Quercus* somewhere in the Netherlands, so different from *Lobarion* and survives transplantation to *Betula* in a front garden many miles away, which – again – differs so much from *Lobarion*? Given the fact that *Lobarion* is rapidly declining, it is a ray of hope!

We wish to thank André Aptroot and Christoph Scheidegger for giving useful suggestions to the manuscript, and Arie van den Bremer who took the photographs.

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Thirty years of change in a lichen-rich snowpatch community on Cairn Gorm, Scotland

Introduction

Here is the promised full account of our results from Ciste Mhearad (Bulletin 2014; 115). This study focused on investigating vegetation change following a survey carried out in 1983 by Oliver Gilbert and Brian Fox (1985).



Fig. 1. View northeast down transect showing junction between herb and bryophyte zones

The Cairngorms present a striking example of a sub-arctic montane habitat whose plant communities merit attention both for their conservation value and as sensitive indicators of climate change (Fryday 2002). The climate of Northern Scotland is oceanic with the Cairngorms in the more continental interior straddling the divide between Northern and Eastern Scotland. On the plateau, most of it above 1000 m, high winds, excessive precipitation, snow, frost and cloud present a challenging environment. Ice spicules driven by high winds smooth the surfaces of exposed boulders, contrasting with partially buried boulders whose roughness reflects their higher moisture content and potential for both frost shattering and chemical weathering. These agents result in granular disintegration and a scatter of sharp grit

overlying the locally derived glacial drift. Additional limiting conditions for Cairn Gorm vegetation thus include high weathering rates on embedded boulders and in hollows persistently wet or frozen ground.

Ciste Mhearad facing northeast (Fig. 1) lies at 1095 m a.s.l. under the summit of Cairn Gorm. The 1983 survey, including a 150 m long 1 m wide transect from the nivation hollow to the plateau, was carried out in late August 1983 while snow still lay in the hollow with the snow at that time persisting year-round six years out of ten. Since then conditions have changed particularly as regards climate, pollution and increasing recreational pressure.

The initial assumption of Oliver and Brian was that vegetation distribution is primarily controlled by length of snow-lie. Numerous studies have shown that communities in areas of late snow-lie are especially sensitive to climate change, with warming signaled by an uphill shift in species (e.g. Trivedi *et al.* 2008; Britton *et al.* 2009; Rothero *et al.* 2011). However, the relationship between snow-lie and species distribution is complex: apart from climate, community structure can be affected by changes in ground and air pollution, by soil type, its saturation and chemistry, altitude, aspect, topography, wind speed and competitive interactions and, in addition anthropogenic disturbance, which may be masked or mitigated by high slope-wash and rock weathering.

Methods & Materials

The first task for the survey was to locate the transect of 1983 as nearly as possible. Not having any coordinates, we chose the slope sections that most closely resembled the 1983 profile with two pronounced short steep slopes joined by gentler sections ascending to the plateau (Gilbert & Fox 1985; Fig. 6).

Our transect profile was constructed using a 30 m tape and a clinometer. We noted the GPS coordinates at either end ($57^{\circ} 07.296'N$ $03^{\circ} 37.973'W$ and $57^{\circ} 07.330'N$ $03^{\circ} 33.130'W$) with elevations of 1090 m a.s.l at the bottom and 1137 m a.s.l at the top (accuracy 7 m). The transect's starting point is located 23.9 m from the largest boulder lying at the back of the hollow and 3.3 m from a well-rounded small boulder mid-stream (Fig. 2). Comparison of the 1983 and 2012 slope profiles shows



Fig. 2) Ciste Mhearad bowl and measurement grid at base of transect with cord rising above the grid to the right. V.A. is standing on the small locating boulder in mid-stream (Photo V.W.).

overall similarities, with the principal differences being that the 1983 profile has a 20-m prolonged, almost flat, slope section below the mid-slope steep rise and a shorter 35-m-long upper slope to the base of the terminal rise to the plateau (dotted lines in Fig. 3a). A best-fit for the 2012 profile with that of 1983 suggests that the snow level in 1983 lay about 40 meters upslope from the stream and just above 10 m on the 2012 vertical axis. It should be noted that 176 m on our sloping transect is equivalent to 172 m on the horizontal axis.

We started work on 20/09/2012, fifteen days after the snow had completely melted from the hollow and used white cord marked off with red tape in 10 m sections to lay out a 176 m long transect from the stream side where it leaves the nivation hollow on a bearing of 291.6° to the plateau.

A one-meter square frame divided into 10 cm squares provided a grid for recording species percent frequencies. The grid was placed on the north side of the cord and recording was continuously up to 100 m; thereafter every 4 m, due to time restrictions imposed by bad weather. In 1983 recording was also abbreviated with continuous recording up to the mid-slope rise at 75 m, and thereafter every 2 meters. The weather throughout our 3 weeks in the field was atrocious and severely reduced our time on the mountain: consequently, we limited our recording to terricolous lichens, herbs, dwarf shrubs, and undifferentiated bryophytes.

All single specimens or those occurring at less than 1% frequency were listed for the purpose of analysis as 0.5%. Collections were made of all unrecognized species; many of these were fragments without identifiable fruiting structures, these were also listed in the data analysis at 0.5%. Grit frequencies were ignored but stones/rocks over 1 cm were recorded. Frequencies were plotted on graphs and compared with the Oliver and Brian frequencies reconstructed as nearly as possible from their Fig. 6. Six of their terricolous lichens were taken as indicators to compare with the same six species recorded in 2012.

Ten soil samples were collected for analysis in the Geography laboratory at Oxford. Nine samples (Sites 1 to 9), 5x5 cm by 3 cm deep, were collected every 10 m starting from 5 m, with the ninth sample at 85 m taken on the edge of a small hollow below the penultimate steep rise in slope. A tenth sample 10x10 by 8 cm was collected at 160 m.

Results & discussion

Lichen distribution

Since 1983 there has been a dramatic decline in terricolous lichen cover, with eleven fewer species overall and greatly reduced frequency of the six indicator lichens squeezed between the cold, water-saturated soil at the slope foot and the advancing herbs and dwarf shrubs from the upper slopes. New species, not included in the 1983 survey, are *Arthrorhaphis citrinella*, *Dibaeis baeomyces*, *Cladonia chlorophaea*, *C. elongata*, *C. floerkeana* and *C. verticillata/cervicornis*. We did not find *C. furcata* or *Stereocaulon saxatile* or 22 other terricolous species mentioned in the Gilbert and Fox text. By 2012, *Cladonia uncialis* and *Cetraria islandica* had spread strongly downslope to the top of the bryophyte zone, while *C. arbuscula* has remained more or less in its previous location, but has lost its upper range. The lower end of the *Cladonia bellidiflora*

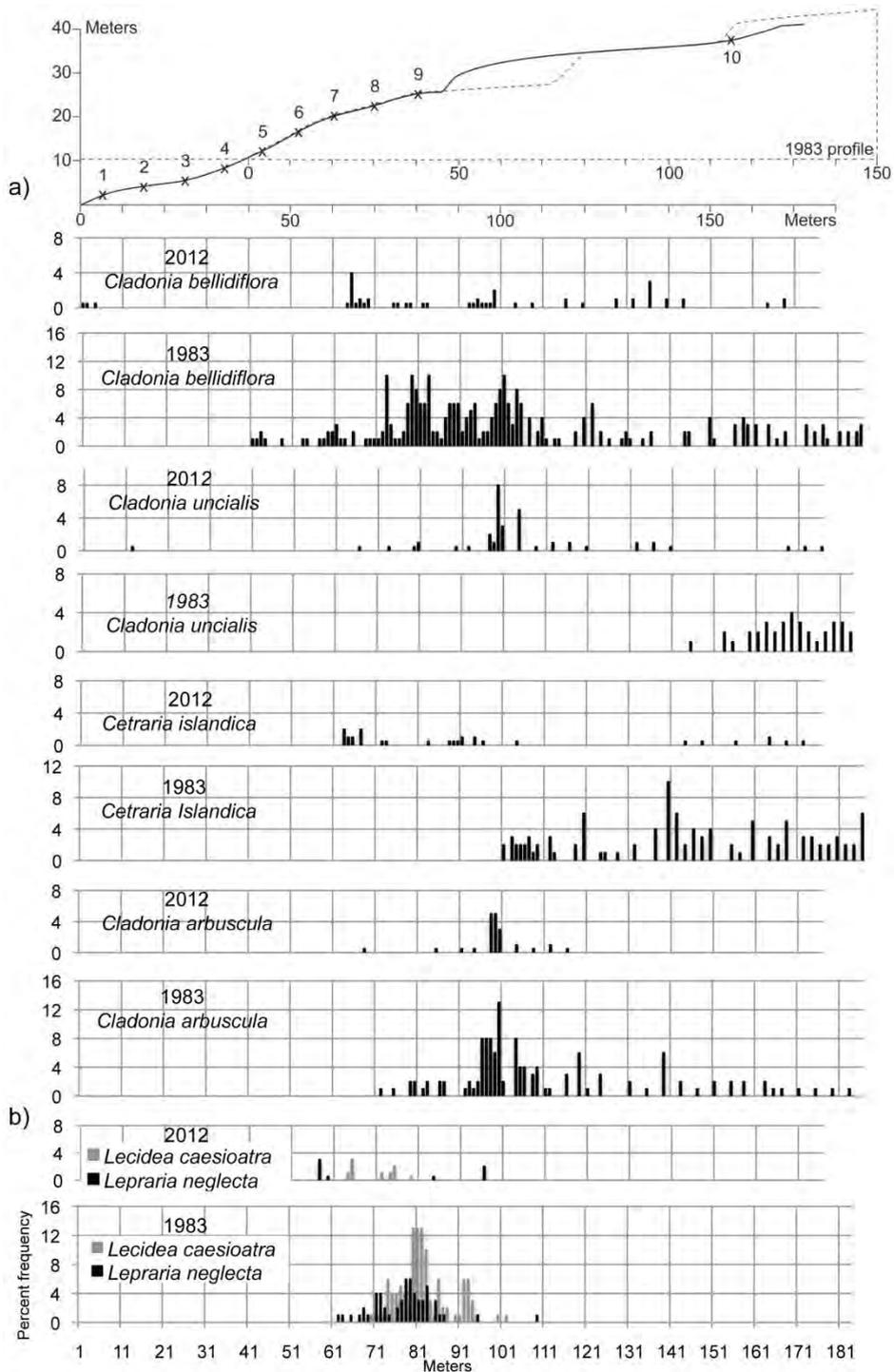


Fig. 3a) The slope profile in 2012 shown as a solid line: the 1983 profile is dotted. Soil-sampling sites are numbered x1 to x10. 3b) Comparative graphs of six lichen species percent-frequency 2012 and 1983. The *Lecidea* and *Lepraria* species are included on the same graph to show their close association.

distribution may have moved slightly upwards, although fragments at the slope foot could be indicative of a potential downwards shift. *Lepraria neglecta* and *Lecidea caesioatra* still appear together at the base of the distribution in much the same position as in 1983 but at drastically reduced frequencies (Fig. 3b; Table 2).

Herbs, dwarf shrubs and bryophytes

By 2012 all the species had expanded, with the possible exception of *Nardus stricta* whose distribution could be an artefact of differences between the 1983/2012 slope profiles (Fig. 4). *Juncus trifidus* shows the most marked change: formally restricted to the uppermost slope, this herb has colonized vigorously downslope. Seven other herbs unrecorded by Oliver and Brian all occur at very low frequencies (Table 2). The first small leaf of *Salix herbacea*, the only shrub recorded in 1983, appears near the foot of the slope and has expanded almost to the top of the transect, but its main distribution still lies in approximately the same position as in 1983. The dwarf shrubs in descending order of frequency after *S. herbacea* are *Empetrum nigrum*, *Vaccinium myrtilus* and *Huperzia selago* all with their main distributions mid-slope, although *V. myrtilus* and *E. nigrum* also reappear at the top of the slope. Bryophytes still dominate the vegetation below 80 m, as in 1983, but have now expanded to above the mid-slope rise; the persistence of this zone at the foot of the transect is probably due to the highly variable length of growing season and the water-logged or frozen surface.

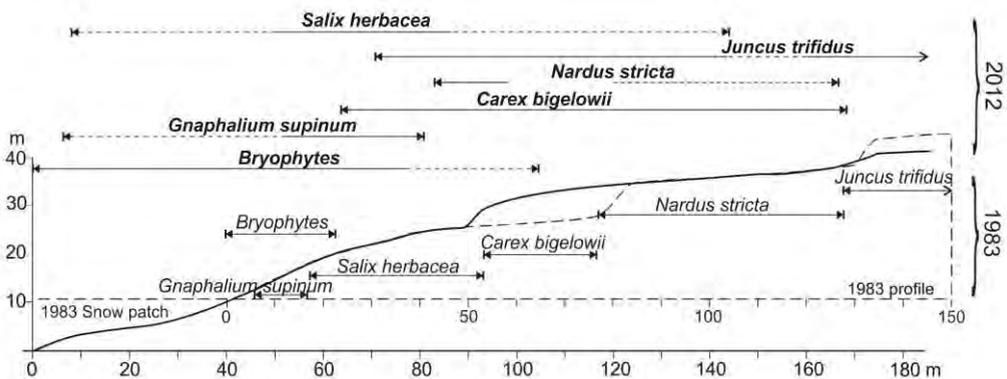


Fig. 4) Slope profile comparing 2012 and 1983 herb distributions (including dwarf shrub *Salix herbacea*), with dotted lines indicating intermittent colonization.

Climate

At Ciste Mheard the complete melting of the snowpatch every year, 2000-2012, indicates a longer growing season (Watson 2011). However, although spring and autumn temperatures have increased (Barnett *et al.* 2006) and wind speeds generally declined (Crabtree and Ellis 2010), the annual number of snow-free days has been variable (mean 33 days \pm 23) and the growing season, is still very short. A lengthening growing season is signaled by the arrival at low frequency of *Vaccinium myrtilus*, the spread of *Salix herbacea* and the marked expansion both up and downslope of the herbs, with the increasing dominance of *Juncus trifidus* tolerant of

late snow-lie, poor drainage and periodic melt-water flushes (McVean and Ratcliffe 1962). Warmer springs and autumns could also have contributed to the addition of *Festuca vivipara*, six other herbs and three dwarf shrubs unrecorded in 1983 (Table 2).

Soil samples

Species' frequency and distribution can also be influenced by pH, chemistry and soil composition. Of the ten soil samples only Site 10 near the top of the slope shows a marked difference in composition (Fig. 3a; Table 1). The organic content is below 1% at all sites except 10 where 6.24% reflects accumulation resulting from dense colonization of *Juncus trifidus* in the lee of the plateau crest. In general, pH is raised ten-fold compared with 1983 values of around 4. However, studies carried out at Allt a'Mharcaidh (1999-2010), a long-term environmental and meteorological site peaking 200 m lower than the base of Ciste Mhearad and 13 km to the southwest, have shown wide variation from a minimum of 4.3 in 2004 to a maximum of 6.5 in 2008 with no trend over the period (ECN Data Centre: data.ecn.ac.uk). Hence, within this wider context the apparent increase in pH up to a maximum of 5.7 at Site 9 may be episodic and relatively unimportant as regards changes in vegetative growth.



Fig. 5) March of the herbs downslope from soil sample site 9.

As regards chemistry, Site 9 on the edge of a small hollow where slopewash is ponded (Fig. 5), shows a raised chloride level signaling oceanic influence and a

markedly raised sulphate value consequent upon acid flushes following snowmelt, with concentrations enhanced by repeat melting. The acid-flush-ponding hypotheses is supported by a lack of similar SO₄ values at Allt a'Mharcaidh where the maximum of 92 ppm reached in July 2005 is well below the 148 ppm of Site 9 at Ciste Mhearad; nitrate values are raised slightly, with this also most likely due to long-range atmospheric pollution borne in by high precipitation on this near mountain-top site. Local levels have been declining since the 1990s, but they are still much higher here than at Allt a'Mharcaidh where values around 0.01 ppm are the norm (<http://data.ecn.ac.uk/tsv/results.asp>). The consequences of nitrate fertilization on vegetative growth were shown in a ten-year study of a lichen-rich community in south-central Norway: under quite low doses of nitrogen, growth of *Cetrariella delisei*, some *Cladonia* species and *Salix herbacea* decreased, while that of *Vaccinium myrtillus*, *Juncus trifidus* and *Deschampsia flexuosa* was unresponsive even to high doses and *Festuca vivipara* benefited slightly. (Fremstad *et al.* 2005).

Comparison of phosphate values of 32.75 ppm at Site 10 with Allt a'Mharcaidh data where phosphate is rarely above trace values highlights the very different conditions at Ciste Mhearad. Phosphate levels on this high-altitude heath are likely to be linked to rock type and slow decomposition of plant litter, although eutrophication from human sources particularly before 2007 (N. Bullivant *pers. com*) may have helped promote sedge and grass growth on the upper slope.

Further considerations

Comparison of the 2012 terricolous lichen distribution with that of Oliver and Brian should take account of differences in slope profile as shown by the dotted line in Fig. 3a. For example, the position of the first short steep rise mid-slope is clearly important as regards vegetation distribution in 1983 with the highest lichen frequencies mostly occurring below the rise, but the rise does not appear to be important in 2012. Fryday (2001a: Fig. 4) produced a schematic slope zone diagram of snowbed vegetation in 1995. The similarity of his zones with those of 1983 as regards *Salix*, *Carex*, *Juncus* and *Nardus* strongly suggests that changes in vegetative distribution occurred after 1995.

Conclusions

Our results add a proviso to the view that climate warming shifts montane vegetation zones upwards: in the melted snowbed context of Ciste Mhearad many of the vascular species have shifted both upwards and downwards, with changes all occurring in the last 17 years. While climate may be the dominant factor, the soil sample from Site 9 indicates some degree of long-range atmospheric pollution, especially SO₄. Locally the addition of nitrate fertilizers on the other side of the plateau ridge could initially have promoted growth of *Festuca vivipara* and the decline in our six indicator lichen species. However, nitrates being water-soluble are quickly washed out of soil and thus local treatment prior to 2002 is unlikely to be affecting current growth; further, the expanded distribution of *Salix herbacea*, reported as being sensitive to nitrogen, also indicates that nitrate pollution is at a low level. As regards phosphate, its relatively low value at Site 9 suggests that eutrophication from human

or animal sources, a point of concern for Scottish Natural Heritage and the Mountain Rangers, is probably not an issue.

We conclude that climate warming has directly affected at least two of the lichen species recorded in 1983 (*Cladonia uncialis* and *Cetraria islandica* shifted downslope) and promoted the arrival of four new *Cladonias* all clustered together at the top of the mid-slope rise, with *Arthrorhaphis citrinella* and *Dibaeis baeomyces* just below. Our results suggest that the decline in lichen cover and richness is principally due to competitive exclusion as a result of the increasing dominance of nitrate-tolerant herbs benefiting from the longer growing season. Further studies are needed to compare the results from Ciste Mhearad with other similar high-altitude, northeast-facing sites such as Coire na Spreidhe, Lochan Buidhe and Braeriach Garbh Choire where there are fewer visitors and less local pollution.

Acknowledgements

The Linnean Society Appleyard fund and the British Lichen Society are both warmly thanked for funding: Vagn for the BLS Overseas Members Travel Fund and Vanessa for a Small Ecological Project Grant. Work could not have taken place without permission from: Keith Duncan, Scottish Natural Heritage, Jeremy Roberts, Senior Site Manager of the Abernethy RSPB Reserve, and Nic Bullivant, Head Ranger, of the Mountain Ranger Service who also gave us much valuable information on local conditions and historical treatments of the paths and skiing areas. David Genney of SNH is thanked for access to his bryophyte work and Andrea Britton, Rachel Helliwell, Shiela Gibbs and Ruth Mitchell of the James Hutton Institute most generously supplied comments and comparative data from their work at Allt a'Mharcaidh. Thanks also go to Mona Edwards of the Landscape Dynamics Group, OUCE, University of Oxford for soil analysis and helpful technical advice.

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Table1. Soil composition, organics, pH and chemistry.

| Soil sites | Gravel % | Sand % | Silt % | Clay % | Organics* % | pH | Chloride ppm | Sulphate ppm | Nitrate ppm | Phosphate ppm |
|------------|----------|--------|--------|--------|-------------|-----|--------------|--------------|-------------|---------------|
| 1 | 1.1 | 56.3 | 39.8 | 2.7 | 0.5 | 5.2 | 38.34 | 21.03 | 11.95 | 2.05 |
| 2 | 1.1 | 68 | 29.9 | 1.1 | 0.6 | 5.1 | 37.81 | 19.43 | 17.38 | 8.88 |
| 3 | 1.8 | 86.6 | 11.6 | 0.0 | 0.92 | 5.1 | 43.74 | 13.64 | 9.51 | 2.18 |
| 4 | 1.2 | 84.5 | 14.2 | 0.1 | 0.75 | 5.2 | 40.19 | 27.59 | 15.16 | 8.44 |
| 5 | 0.9 | 62.3 | 35.3 | 1.5 | 0.26 | 5.3 | 37.62 | 23.7 | 18.64 | 21.51 |
| 6 | 0.0 | 66.8 | 31.5 | 1.7 | 0.31 | 5.3 | 35.66 | 25.4 | 18.16 | 14.45 |
| 7 | 0.4 | 66.4 | 32.3 | 0.8 | 0.82 | 5.4 | 34.80 | 19.45 | 11.42 | 23.88 |
| 8 | 0.8 | 59.6 | 39.6 | 1.8 | 0.92 | 5.4 | 39.02 | 14.5 | 12.94 | 6.09 |
| 9 | 1.1 | 74.7 | 23.5 | 0.6 | 0.73 | 5.7 | 62.29 | 148.78 | 19.86 | 6.49 |
| 10 | 3.4 | 95.5 | 1.1 | 0.0 | 6.24 | 5.0 | 55.09 | 29.0 | 7.7 | 32.75 |

Organics* - after heating to 550°C

Table 2. Recorded species ordered by location of first appearance from the transect base. A single number - one record only. Hyphenated numbers imply a continuous run of a species (with possibly a few gaps) and numbers separated by dots indicate larger gaps in the transect with dots representing the estimated potential range of the distribution. *Nardus stricta* is absent over 45 m in the centre of its range.

| TERRICOLOUS LICHENS | Location on transect (m) | HERBS | Location on transect (m) |
|---|--|-------------------------------|--------------------------------------|
| <i>Cladonia bellidiflora</i> | 1-4, 64-85, 95-146, 166-170 | <i>Festuca vivipara</i> * ** | 1...26, 40-70, 176 |
| <i>Cladonia spp</i> + | 3-15, 21, 22, 51, 55, 62-99, 128, 132, 164 | <i>Saxifraga stellaris</i> .* | 1...29, 38...55 |
| <i>C. uncialis</i> | 15, 66, 73, 79-120, 132-140, 168-176 | <i>Nardus stricta</i> | 84-99, 144-168, |
| <i>Lepraria neglecta</i> | 57-59, 84, 96 | <i>Poa spp.</i> * ** | 7, 8, 23, 53, 55 |
| <i>Baeomyces rufus</i> | 62, 74 | <i>Gnaphalium supinum</i> | 7, 8, 51-68, 72, 80, 81 |
| <i>Cetraria islandica</i> | 63-104, 144-172 | <i>Carex bigelowii</i> | 62-168 |
| <i>Lecidea caesia</i> atra** | 64-79 | <i>Deschampsia flexuosa</i> * | 69, 73, 92-148, 168-176 |
| <i>Dibaeis baeomyces</i> * ** | 65-77 | <i>Juncus trifidus</i> | 71-78, 87-144, 148-176 |
| <i>Cladonia arbuscula</i> | 68, 85-116, | <i>Alchemilla alpina</i> * ** | 93-95, |
| <i>Arthrorhaphis citrinella</i> * ** | 74 | <i>Dryopteris spp.</i> * ** | 96, 97 |
| <i>Cladonia mitis</i> ** | 74, 82, 87 | <i>Galium spp.</i> * | 168, 172 |
| <i>Ochrolechia frigida</i> ** | 81, 112-140 | | |
| <i>Cladonia elongata</i> * ** | 92, 144 | DWARF SHRUBS | |
| <i>C. floerkeana</i> * ** | 93 | <i>Salix herbacea</i> | 8, 43-86, 93-100, 112....144 |
| <i>C. chlorophaea</i> * | 94,95 | <i>Huperzia selago</i> * | 59....104, 116, 152, 160 |
| <i>C. verticillata/cervicornis</i> * ** | 95 | <i>Vaccinium myrtillus</i> * | 60-64, 76-80, 97...116, 144, 160-176 |
| <i>C. portentosa</i> ** | 96 | <i>Empetrum nigrum</i> * | 60, 77, 93....112, 144, 152, 164-172 |
| <i>C. coccifera</i> | 96-148 | | |
| <i>C. maxima</i> | 97 | | |
| <i>C. gracilis</i> ** | 108 | BRYOPHYTES | 1-100+ |
| <i>Cetrariella delisei</i> ** | 168 | | |
| | | STONE & BARE EARTH | 1-104, 82-84, 138... |

+ *Cladonia* fragments too small to identify.

* Species not recorded at Ciste Mheard by Gilbert and Fox

** Not recorded in 1994/95 by Fryday (2002).

A single number denotes one record only; hyphenated numbers imply a continuous run of a species (with possibly a few gaps) and numbers separated by dots show where there are larger gaps in the transect with dots representing potential range of the distribution.



Many of you will know that Pd (paraphenylenediamine) is not just a lichen identification aid, but was at one time used as hair dye. Here's a bottle preserved in the Jersey Museum. Don't try this at home (any more....)

The British Lichen Society Herbarium

Did you know that the Society has an extensive collection of herbarium specimens that can be borrowed by members? Although not comprehensive, well over 800 species on the British list are represented. These specimens have been donated or bequeathed by members over the last 50 or more years.



They are particularly useful to members who are relatively new to lichenology and who are trying to get to grips with macrolichens. This study collection also has the advantage over the collections in national and local herbaria in that they can be examined at home and small fragments may be removed for microscopic examination or chemical testing.

Illustrated Floras, dichotomous keys, chemical tests and microscopic examination are obviously all important when trying to accurately name specimens. However, they are at their best when combined with comparison with accurately determined material that can also give the “jizz” of the species.

So, for example, examining a number of species from the same genus, side by side, really highlights the similarities and differences. Also, if you are trying to get to grips with the variety of specialised lichen structures such as isidia, soralia and pseudocyphellae, why not borrow a selection of specimens that show them clearly?

I am always pleased to receive requests from members to borrow specimens, so check out the BLS website under Resources – Herbaria for further information.

Specimens (preferably in batches of not more than 20) can be borrowed by post by emailing requests to the Curator (herbarium@britishlichensociety.org.uk). Members are requested to reimburse postage (usually less than £5) when the loan is returned.

Richard Brinklow, Herbarium Curator

British Lichen Society Library - with a request for feedback please!!

The BLS has had a Library almost since the very beginning. It is a collection of books and other materials which members can borrow (British Members only – sorry but the cost of overseas mail is too much...). It has been much used in the past but we have seen a decline in its use over the years and in the last year only one or two people have used it. The reasons for this decline are several. One is the much increased availability of lichen information on the internet, and secondly the ease with which it is now possible to buy lichen books new or second hand over the internet. Thirdly, the BLS library is located to the west of Swansea which for most lichenologists in Britain is remote and only possible to visit by long distance car drive. You can request items sent to you by post (which costs less than the petrol for most of us).

However, for most of us, the internet is not a complete solution to our lichenological information needs. Online information, documents or even papers in scientific journals (if you can get access to them) only represent a part of the lichenological literature. If you are interested in obtaining a lichenology book, you cannot see it before you purchase it. And you cannot see the most important lichenological literature together in one place.

As a result of its lack of use, the Library has not had an active acquisition policy recently and newer publications have not been obtained. There have only been occasional donations. But it has an unrivalled collection of older works that you won't find elsewhere even in most of our more illustrious university libraries.

The foundations of lichenology have been laid over a considerable period of time. Scientists today seem to be reluctant to refer to older literature either because they are unaware of it or for fear of being seen to be out of date. Without wishing to be too esoteric, how many younger lichenologists have read A.L Smith's monograph on *Lichens* (CUP 1921), or H. des Abbayes' *Traite de Lichenologie* (Lechevalier 1951) or V. Ahmadjian and Hale *The lichens* (Academic Press 1973)? Here is the opportunity to borrow a copy of Hawksworth and Hill *The Lichen-forming Fungi* (Blackie, Glasgow 1984) (hard to get second hand I believe!) or Huneck and Yoshimura *Identification of Lichen Substances* (Springer 1996) or if you want to check out the lichen flora of another country e.g. Ozenda and Clauzade *Les Lichens* (Masson, 1970) for a trip across the channel. Go online and add up the huge cost of buying all these now! Therefore one would think that the BLS library still has a role. How many of the hundreds of books on lichenology have you opened, looked into and perhaps read a bit or scanned the illustrations?

Personally I would like to see the acquisition of the rarer, older, more obscure, and more expensive new books that most ordinary lichenologists would not be able to justify buying. Such books we might like to use perhaps briefly for one or two papers or just to look though with a view of seeing if we might splash out and get a copy. For example books published by Cramer in the *Bibliotheca Lichenologica* series

are very expensive. Some contain collections of papers in one volume and others are monographs of genera or families which one would want to refer to and read to get up to date and perhaps photocopy a key etc. but one could not justify spending more than £100 to buy a volume. The same applies to books on lichens published by Springer Verlag. Other possible acquisitions could be the rarer older works such as for example (again without wishing to be too esoteric) with the structure and anatomy of lichens: Nienburg W. (1926) *Anatomie der Flechten*. Handbuch der Pflanzenanatomie Vol 6 Set 2 part 1 Ed. K. Linsbauer. Gebruder Borntraeger Berlin 1926 and Ozenda P. (1963) *Lichens*. Handbuch der Pflanzenanatomie. Band VI Ed. K. Linsbauer. Gebruder Borntraeger, Berlin 1963. I find the illustrations, and what I can make out from the German (former) or French (latter), absolutely fascinating. As far as I can tell, surprisingly, these works do not appear to be in the Library yet.

On the other had should we have multiple copies of Frank Dobson's books and identification aids to have available on courses and field meetings? But it seems to me that most people who want to get going on lichens can afford to buy these and do so. There is a catalogue of most of the books and it will be on BLS website in due course. But you can also ask if the Library has a particular publication and request a copy to be sent to you (see BLS website for details of how to do this). You can also go and visit the National Botanic Garden of Wales (most beautiful gardens to boot) where the library is located and read as much as you want there and take away loans with you. There are excellent inexpensive places where you can stay for a night or two (and overseas members who wish to read in Library are more than welcome!). There you can become better informed about lichenology than most other lichenologists who do not have access to this amazing literature.

But above all, what we want to know is do you want a library and if so what for and if not why we should keep it? If we do not want to keep it we can offer it to another library and even perhaps request that BLS members can still use the books. If you do want to keep the library, what acquisition policy should we have and how do we fund it?

Please let me know your views on the Library by email as soon as possible. I need to know as chairman of the Membership Services Committee which is dedicated to maintaining and improving the services you as members get from the BLS and that includes the decisions of what to do with the Library. At the moment we are not clear which direction the BLS should take its Library.

David Hill
Membership Services Committee
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Volunteers needed

Over the last couple of years I have heard the same comment again and again, that there are all sorts of things we would like to be doing as a society, and some are things that we really should be doing, but we just don't have the people or the time to do them. That led to a review of the workload of the society's officers and committees, and once we had it down on paper it was clear that we need more people to share the load. We can't keep asking the same people to take on more and more.

There are plenty of opportunities to get involved, and while some tasks can be quite engrossing there are others that need just a few hours a month or even as little as a few hours each year. Some need special skills or experience, others just need time and space on the kitchen table, and several are a great opportunity to learn. Amongst other things, over the next year or two we expect to need practical help with:

- Organising meetings and events
- Minuting committee meetings and chasing for papers
- Sending out welcome packs to new members
- Membership administration
- Website administration
- Writing new pages for the website, particularly educational materials and information on lichen habitats and conservation
- Writing and editing species accounts on the website
- Redeveloping old websites to modern standards
- Inputting records from old county floras and provincial museum collections, to add them to the BLS database
- Mentoring and training
- Acting as local and diocesan contacts, to answer queries and carry out site visits
- Reviewing records sent in by novices for your local area
- and more.....

If any of these might interest you, do get in touch with me. Your society needs you! And please don't hold back if *you* have good ideas of ways to help the BLS – you may have skills and interests that we just haven't thought of....

Janet Simkin

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Literature pertaining to British lichens - 56

Lichenologist **46**(6) was published on 25 October 2014, **47**(1) on 29 January 2015, and **47**(2) on 16 March 2015.

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.

BLATCHLEY, I. 2015. In “Reports of outdoor meetings 2014”. *Bull. Kent Field Club* **60**: 13–37: Hastingleigh and Ruckinge Churchyards (p. 16); Biddenden Churchyard (pp. 34–35).

DIEDERICH, P. & COPPINS, B.J. 2014. *Diplolaeviopsis symmictae* (Helotiales, Ascomycota), a new lichenicolous fungus on *Lecanora symmicta*. *Bulletin de la Société des naturalistes luxembourgeois* **115**: 151–155. [Available online]. **Diplolaeviopsis symmictae* Diederich & Coppins is described from California and Scotland. Affinities to the genus *Everniicola* are suggested.

ELLIS, C.J., YAHR, R., BELINCHÓN, R. & COPPINS, B.J. 2014. Archaeobotanical evidence for climate as a driver of ecological community change across the anthropocene boundary. *Global Change Biology* **20**: 2211–2220.

ERTZ, D. & DIEDERICH, P. 2015. Dismantling *Melaspileaceae*: a first phylogenetic study of *Buelliella*, *Hemigrapha*, *Karschia*, *Labrocarpon* and *Melaspilea*. *Fungal Diversity* **71**: 141–164. A thought-provoking investigation of *Melaspilea*-like fungi, but very much the first part of a ‘work in progress’. Several nomenclatural innovations are introduced that are not immediately ‘accepted’ into the British checklist, but are likely to be adopted together with other innovations at a later date. These are: *Melaspileella proximella* (Nyl.) Ertz & Diederich (syn. *Melaspilea proximella*) [British records of this species refer only to occurrences on *Juniperus*, but the authors cite specimens also from other hosts, including *Pinus* and *Tilia*; I suspect they are taking a too broad a concept here, and similar material is also known from Britain on *Corylus*, *Populus tremula* and *Salix* – a more critical appraisal is required in my opinion]; *Melaspileopsis diplasiospora* (Nyl.) Ertz & Diederich (syn. *Melaspilea diplasiospora*) [British material under the latter name, which is parasitic on *Graphis elegans*, may belong to a different species than the corticolous species treated by the authors of this paper]. In addition, *Melaspilea lentiginosa*, a lichenicolous fungus confined to *Phaeographis dendritica*, is treated under the early name of *Stictographa lentiginosa* (Lyell ex Leight.) Mudd (1861). The ‘new’ genera involved here are *Melaspileella* (P. Karst.) Vain. (1921), *Melaspileopsis* (Müll. Arg.) Ertz & Diederich (2015) and *Stictographa* Mudd (1861).

FLEMING, T. 2015. In “Reports of outdoor meetings 2014”. *Bull. Kent Field Club* **60**: 13–37: Hosey Common (pp. 30–31).

FRISCH, A., THOR, G., ERTZ, D. & GRUBE, M. 2014. The Arthonialean challenge: restructuring *Arthoniaceae*. *Taxon* **63**: 727–744. Three phylogenetic lineages are identified: *Arthoniaceae* clade, *Bryostigma* clade and *Felipes* clade. The *Bryostigma* clade is related to the *Arthoniaceae* clade and includes *Bryostigma muscigenum* (Th. Fr.) Frisch & G. Thor (syn. *Arthonia muscigena*) along with, for example, *Arthonia apatetica*, *A. lapidicola*, *A. molendoi* and *A. phaeophysciae*. The *Felipes* clade is a small group that includes *Felipes leucopellaeus* (Ach.) Frisch & G. Thor (syn. *Arthonia leucopellaea*), and is more related to the *Chrysotrichaceae*. The new genus *Felipes* Frisch & G. Thor is so named because of the resemblance of the ascomata to a cat’s paw. Within the Arthonioid sub-clade of the *Arthoniaceae*, the genus *Coniocarpon* DC. (1805) is accepted. This genus is typified by *C. cinnabarinum* DC. (1805) (syn. *Arthonia cinnabarina*) and the newly combined *C. fallax* (Ach.) Grube [this is probably the correct name for the species known in Britain as *Arthonia elegans*]. In the Cryptothecioid sub-clade of the *Arthoniaceae* the genus *Pachnolepia* A. Massal. (1855) is resurrected to accommodate *Arthonia pruinata*, as *P. pruinata* (Pers.) Frisch & G. Thor. A new family, *Lecanographaceae* Ertz, Tehler, G. Thor & Frisch is introduced for *Lecanographa*, *Plectocarpon* and the recent segregates from *Opegrapha*, *Alyxoria*, *Phacographa* and *Zwackhia*, as well as *Opegrapha brevis*. [This is still very much ‘work in progress’, so the formal changes will not be immediately made to the British checklist, although the ‘new’ names are included as synonyms in the on-line Taxon Dictionary on the BLS website.]

HAWKSWORTH, D.L., AGUIRRE-HUDSON, B. & AINSWORTH, A.M. 2014. *Sphinctrina tigillaris*, an overlooked species of *Chaenothecopsis* growing on *Perenniporia meridionalis*, a polypore new to the UK. *Lichenologist* **46**: 729–735. **Chaenothecopsis tigillaris* (Berk. & Broome) D. Hawksw. (2014) (syn. *Sphinctrina tigillaris* Berk. & Broome) is based on material collected from a beam in a Northamptonshire church, and apparently not recorded since. It was growing on a polypore, not hitherto reported from Britain.

HESTMARK, G. 2014. Lectotypification of the name *Umbilicaria nylanderiana* (*Umbilicariaceae*). *Taxon* **63**: 914–917.

KNUDSEN, K., KOCOURCOVÁ, J. & NORDIN, A. 2014. Conspicuous similarity hides diversity in the *Acarospora badiofusca* group (*Acarosporaceae*). *Bryologist* **117**: 319–328. Detailed treatment of *Acarospora badiofusca* and two close relatives, neither of which occur in the British Isles.

LINDA IN ARCADIA, KNUDSEN, K. & WESTBERG, M. 2015. (2341) Proposal to conserve the name *Lichen fuscatus* Schrad. (*Acarospora fuscata*) against *L. fuscatus* Lam. with a conserved type (lichenised *Ascomycota*: *Acarosporaceae*). *Taxon* **64**: 168–169.

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- SEAWARD, M.R.D. 2014. The lichens of Lawnswood Cemetery, north Leeds. *Naturalist* **139**: 35–37. A preliminary checklist of 86 lichens from a suburban cemetery which was opened in 1875.
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- SPRIBILLE, T., RESL, P., AHTI, T., PÉREZ-ORTEGA, S., TØNSBERG, T., MAYRHOFER, H. & LUMBSCH, H.T. 2014. Molecular systematics of the wood-inhabiting, lichen-forming genus *Xylographa* (Baeomycetales, Ostropomycetidae) with eight new species. *Symbolae Botanicae Upsalienses* **37**(1): 1–87. A well-illustrated revision, treating all three British species [plus a few others that could occur...!].
- SPRINGATE, S. 2015. In “Reports of outdoor meetings 2014”. *Bull. Kent Field Club* **60**: 13–37: Nor Wood, Cuxton (pp. 27–28).
- THÜS, H., ORANGE, A., GUEIDAN, C., PYKÄLÄ, J., RUBERTI, C., LO SCHIAVO, F. & NASCIMBENE, J. 2015. Revision of the *Verrucaria elaeomelaena* species complex and morphologically similar freshwater lichens (Verrucariaceae, Ascomycota). *Phytotaxa* **197**: 161–185. This revision results in the addition of **V. alpicola* Zschacke (1927) and the new species **V. humida* Orange to the British list, however, the status of *V. elaeomelaena* in the British Isles remains unresolved, and records under this name are best regarded as being *V. elaeomelaena* s. lat. This unresolved complex includes material previously identified as *V. andesiatica*.
- VAN DEN BOOM, P.P.G. & ETAYO, J. 2014. New records of lichenicolous fungi and lichenicolous lichens from the Iberian Peninsula, with the description of four new species and one new genus. *Opuscula Philolichenum* **13**: 44–79. Includes the original description and illustrations of *Phaeospora everniae*, recently added to the British list.
- VAN DEN BOOM, P.P.G. & GIRALT, M. 2012. Checklist and three new species of lichens and lichenicolous fungi of the Algarve (Portugal). *Sydowia* **64**: 149–208. The usually sterile lichen, previously known as *Peterjamesia soredata* has been found

fertile and belong to the genus *Fulvophyton* Ertz & Tehler (2011). The new combination, *F. soreliatum* [as “*soreliata*”] (Sparrilus, P. James & M.A. Allen) van den Boom is made.

B.J. Coppins
lichensel@btinternet.com

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 100 km squares to aid recording, 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

Catillaria fungoides Etayo & v.d. Boom (2001): on nutrient-rich bark of *Fraxinus* stem, near southwest corner of West Wood, Grafham, VC 31, Huntingdonshire, GR 52(TL)/1557.6967, February 2015. Herb. Powell 3587. Thallus thin and becoming covered in rounded to irregular blackish soralia. Soredia globose, farinose, 12-20 µm diameter, surface hyphae with dark brown pigment. Apothecia and ascospores similar to *C. nigroclavata* but with the hymenium densely interspersed with oil droplets. For full description see van den Boom P. P. G. & Etayo J. in *Lichenologist* 33(2): 103-110 (2001). **BLS No. 2647** and see also **Other Records**. *M. Powell*

Ceratobasidium bulbilliformis Diederich & Lawrey (2014): loosely associated with *Lecidella elaeochroma* on *Fraxinus* trunk beside main road, Royal Artillery Way, Southchurch, Southend-on-Sea, VC 18, South Essex, GR 51(TQ)/908.867, alt. 20 m, September 2014. Herb. P. M. Earland-Bennett (E). Determined by B. J. Coppins. An apparently facultatively lichenicolous fungus, which is widely distributed in western Europe, especially in *Xanthorion* communities. For description and illustrations, see Diederich *et al.* in *Lichenologist* **46**(3): 333–347 (2014). **BLS No. 2642.**

P.M. Earland-Bennett

Lecidea huxariensis (Beckh. ex J. Lahm) Zahlbr. (1925): on lignum of standing decorticate *Pinus* snags (girths 51–62 cm), in felled (2009) conifer plantation, above (south of) Allt Creag Bheithin, Moy, VC 96, East Inverness-shire, GR 28(NH)/74-34-, alt *c.* 330 m, March 2015. Herb. Coppins (E). A tiny species with a pale, inconspicuous, endoxylic thallus and black or dark brown, flat or rarely convex apothecia to 0.1 mm diameter, a colourless hypothecium, asci 12–16-spored with *Lecanora*-type apex, simple ellipsoid spores, 5–7 × 2–4 µm, and paraphyses with dark apical caps forming an olivaceous epithecium. Widely reported from Europe on lignum, including old fences, but probably much overlooked. **BLS No. 2650.**

B. J. Coppins & J. R. Douglass

Phaeospora everniae Etayo & van den Boom (2014): on brown-discoloured thalli of *Evernia prunastri* in wet, willow-birch woodland, Gordon Moss SSSI, VC 81, Berwickshire, GR 36(NT)/63-42-, alt 130 m, March 2015. Herb. Coppins (E). Perithecia black, ± immersed, 70–120 µm diameter; asci 8-spored; ascospores (2–)3-septate, brown, (11–)12–15(–16) × 4–5 µm, with many small oil guttules. Previously recorded from Spain. For full description and photographs see van den Boom & Etayo in *Opuscula Philolichenum* **13**: 44–79 (2014); available free on-line. **BLS No. 2651.**

B. J. Coppins & P. Cannon

Puttea caesia (Fr.) M. Svensson & T. Sprib. (2012): on rotting lignum of *Picea sitchensis* stump in felled (2013) plantation, northeast of Forest Lodge, Glen Loy, VC 97, West Inverness-shire, GR 27(NN)/15221.82332, alt 63 m, February 2014. Herb. Coppins (E). A tiny *Micarea*-like species with a pale, inconspicuous, endoxylic thallus and brown immarginate apothecia *c.* 0.1–0.2 mm diam., a colourless hypothecium, asci 8-spored, with a K/I+blue tholus, and small ellipsoid simple spores, 5–8 × 1.5–2.5 µm. Although added to the British list here, this species has been previously reported as its synonym, *Lecidea symmictella* Nyl., but referred to the synonymy of *Lecidea* (= *Lecanora*) *symmicta* in Peter James's 1965 checklist. The description given in Smith, *Monograph of British Lichens* **2**: 41 (1926) may well refer to *Puttea caesia*, and the identity of the cited specimen (presumably in BM) from Glen Derry, near Braemar should be checked. For further notes on this species see Dillman *et al.* in *Herzogia* **25**: 177–210 (2012), **BLS No. 2648.** *B. J. Coppins & A. Acton*

Thelidium rehmi Zschacke (1921): on fragments of tiles dumped on the ground in woodland, near New Bridge, north of Spean Bridge, VC 97, West Inverness-shire, GR 27(NN)/2246.8777, May 2004. Herb. A. Orange 15021 (NMW - C.2004.002.265) confirmed by ITS sequence). Identified by a thin thallus, small

perithecia 160–210 µm diameter, with thin appressed involucrellum; ascospores 1-septate, (20–)21.5–25(–26.5) × (10–)10.5–12(–12.5) µm. *T. minutulum* differs in the more prominent perithecia with no involucrellum. **BLS No. 2652** and see also **Other Records**.

A. Orange

Verrucaria obfuscans (Nyl.) Nyl. (1881): on limestone windowsills and limestone string course of church, Great Milton, VC 23, Oxfordshire, GR 42(SP)/628.024, February 2015. Herb. Powell 3613 and 3618. Determined by B. J. Coppins. This species is characterised by a brown thallus, somewhat prominent perithecia, lack of an involucrellum and medium sized, rather narrow spores, 16–22 × 7–8 µm. For full description see Krzewicka in *Polish Botanical Studies* **27**: 82–84 (2012). **BLS No. 2649**.

M. Powell

Other Records

Acarospora moenium: on top of roadside concrete post, Wood Walton, VC 31, Huntingdonshire, GR 52(TL)/206.805, January 2015. Herb. Powell 3557. This specimen was not recognised in the field since the areoles are scarcely pruinose and the hyphae of the soredia have only very dilute pigment. New to the Vice-county.

M. Powell

Arthonia apotheciorum: parasitic on apothecia of *Lecanora albescens* on gravestone in churchyard, Church Knowle, VC 9, Dorset, GR 30(SY)/940.819, March 2014. Second record for Dorset, for this species.

J. Seawright

Arthonia atlantica: in sheltered east-facing rock recess under overhang on sea-cliff, rocky cove 0.5 km southwest of Trwyn Crou, VC 46, Cardiganshire, GR 22(SN)/327.552, alt 30 m, May 2014. Herb. SPC. A new site for this Section 42 species.

S. P. Chambers

Arthonia diploiciae: parasitic on thalli of *Diploicia canescens* on south-facing church wall, Corfe Mullen, VC 9, Dorset, GR 30(SY)976.983, January 2014. New to the Vice-county

J. Seawright

Arthonia graphidicola: on about 5 *Graphis scripta* thalli on one *Corylus avellana* stem in cluster, east edge of streamside woodland, Blaenpennal, VC 46, Cardiganshire, GR 22(SN)/628.647, alt 190 m, February 2015. Herb. SPC. New to the Vice-county.

S. P. Chambers

Arthonia invadens: parasitic on *Schismatomma quercicola* on four *Quercus petraea*, within old growth former pasture woodland, Coed y Môch, Nannau, VC 48, Merionethshire, GR 23(SH)/7415.2020, 23(SH)/7418.2034, 23(SH)/7422.2039 & 23(SH)/7420.2030, alt 190 – 200m, November, 2014. Second record for Wales for this rare lichenicolous fungi, which is an obligate parasite of an endemic lichen.

N. A. Sanderson & A. Seddon

Arthonia lapidicola: around the edge of one Pwntan sandstone block below sill of west gable end window, Tremain Church, VC 46, Cardiganshire, GR 22(SN)/235.486, alt 110 m, January 2015. Herb. SPC. New to the Vice-county.

S. P. Chambers & T. A. Lovering

Arthonia leucopellaea: on trunk of mature, open-grown, tagged *Quercus* near lake, Arlington Court, VC 4, North Devon, GR 21(SS)/6048.4025, October 2014. Herb. M. Putnam. Determined by B. Benfield. Confirmed by B. J. Coppins. New to the Vice-county. *Holwill & M. Putnam.*

Arthonia molendoi: parasitic on *Xanthoria parietina* on *Acer pseudoplatanus*, Shell Bay dunes, South Haven Point, VC 9, Dorset, GR 40(SZ)/036.864, December 2013. New to the Vice-county. *J. Seawright*

Arthonia thelotrematis: parasitic on *Thelotrema lepadinum* on old *Ilex* within *Fagus* – *Ilex* – *Quercus robur* pasture woodland, Shave Wood, New Forest, VC11, South Hampshire, GR 23(SU)/2879.1217, April 2015. New to lowland England. *N. A. Sanderson & P. Evans*

Arthopyrenia carneobrunneola: for details, see under *Pyrenula acutispora*.

Aspicilia grisea: on slates of porch roof of church and on granite curb surrounding grave in churchyard, Waterstock, VC 23, Oxfordshire, GR 42(SP)/634.056, April 2015. Herb. Powell 3647. This material is K+ yellow (rather than yellow to red) and shares this feature with the *A. grisea* populations growing on sarsen stones on the Marlborough Downs. New to the Vice-county. *M. Powell*

Bacidia circumspecta: with *Rinodina griseosoralifera*, on base rich flushed bark on ancient *Quercus* in relic pasture woodland, Croft Ambrey, Croft, VC 36, Herefordshire, GR 32(SO)/4464.6692, alt 290 m, April 2015. New to the Vice-county and a significant record for a declining Section 41 species. *N. A. Sanderson*

Bacidia incompta: on at least twelve large *Ulmus* suckers in single clonal group, Savage's Spinney, VC 31, Huntingdonshire, GR 52(TL)/133.693, February 2015. Herb. Powell 3592. This clonal group of elm suckers appears to produce a relatively prolific exudate, with even slight damage and the *B. incompta* is associated with the resultant dried white crust. This population must account for several thousand apothecia, as several stems are dominated by abundantly fertile thalli, covering extensive areas. *M. Powell*

Bacidia neosquamulosa: fertile, on branches of recently felled *Salix*, Little Paxton Pits, VC 31, Huntingdonshire, GR 52(TL)/200.632, February 2015. Herb. Powell 3632. This species is probably very common on nutrient-rich bark, but it is usually sterile in which case it is difficult to confirm. The micro-squamules and the granules that arise from them are both generally smaller than quoted in the literature, forming a pale green 'sorediate' crust. New to the Vice-county. *M. Powell*

Bacidia phacodes: on old bark at base of convoluted *Acer campestre* within ancient hedge, with arable fields either side, Riseley, VC 30, Bedfordshire, GR 52(TL)/042.617, February 2015. Herb. Powell 3584. New to the Vice-county. *M. Powell*

Bacidia subturgidula: a small patch on lignum of old *Ilex* in open *Fagus* – *Ilex* – *Quercus robur* pasture woodland, Great Huntley Bank, Brinken Wood, New Forest, VC11, South. Hampshire, GR 23(SU)/2777.0601, April 2015. Third record for the

New Forest and fifth recent world record for this very rarely recorded Section 41 species. *N. A. Sanderson & P. Evans*

Biatora britannica: on *Quercus petraea* within old growth pasture woodland, Bedw Caemelyn, Carn Gafallt SSSI, Elan valley, VC 42, Breconshire, GR 22(SN)/9403.6536, alt 290 m, October 2014. New to the Vice-county.

N. A. Sanderson

Buellia hyperbolica: for details, see under *Lecanora strobilina*.

Buellia violaceofusca: frequent thalli on dry side of ancient *Quercus petraea* in grove of old *Quercus* within under grazed old growth pasture woodland, Cwm yr Esgob, Carn Gafallt SSSI, Elan valley, VC42, Breconshire, GR 22(SN)/SN9344.6497, alt 225 m, October 2014. New to Wales and an important addition of a rare sub-oceanic lichen to the outstanding lichen assemblage of the Elan valley.

N. A. Sanderson

Caloplaca asserigina: occasional to locally frequent on bare tips of *Calluna vulgaris* and *Erica cinerea* on dune ridges, Studland Heath, VC 9, Dorset, GR 40(SZ)/03-84- and 40(SZ)/03-85-, September 2012. Second record for Dorset for this species. *J. Seawright*

***Caloplaca herbidella* s. str.**: on two ancient *Quercus petraea* in open edge of ancient pasture woodland, Cwm yr Esgob, Carn Gafallt SSSI, Elan valley, VC42, Breconshire, GR 22(SN)/9366.6530 & 22(SN)/9375.6544, alt 195-210 m, October 2014. A new site for this very rare species.

N. A. Sanderson

Candelariella aurella* f. *smaragdula: for details see under *Lecidea grisella*.

Catillaria fungoides: on *Fraxinus* stem at edge of Swineshead Wood, VC 30, Bedfordshire, GR 52(TL)/057.667, February 2015. Herb. Powell 3619. New to the Vice-county and see also **New to the British Isles**.

M. Powell

Chaenotheca chrysocephala: on dry bark of old *Betula* within pasture woodland under restoration from past conifer planting, Coed Cae'n-y-coed, Ceunant Llennyrch, VC 48, Merionethshire, GR 23(SH)/6603.3901, December, 2014. New to the Vice-county.

N. A. Sanderson

Chaenotheca stemonea: fertile, in bark crevices of old *Quercus* trunk, Swineshead Wood SSSI, VC 30, Bedfordshire, GR 52(TL)/06-66-, February 2015. Herb. Powell 3622. New to the Vice-county.

M. Powell

Chaenothecopsis pusilla: on lignum of broken *Quercus petraea*, within old growth upland *Quercus* pasture woodland, Fedw Felen, Nannau, VC 48, Merionethshire, GR 23(SH)/7412.2121, alt 210 m, November, 2014. Second record for Wales for this species and first from North Wales.

N. A. Sanderson

Chaenothecopsis savonica: on two standing dead *Quercus* within pasture woodland, Cnwch Wood & Cwm yr Esgob, Carn Gafallt SSSI, Elan valley, VC 42, Breconshire, GR 22(SN)/9312.6481 & 22(SN)/9339.6493, alt 125 & 220 m respectively, October 2014. New to the Vice-county.

N. A. Sanderson

Cladonia cyathomorpha: on vertical, northeast-facing streamside rockface, Afon Clydach, Cefn y Truman, Mynydd Du (Black Mountain), VC 44, Carmarthenshire, GR 22(SN)/740.193, alt 340 m, February 2015. Herb. SPC. New to the Vice-county.

S. P. Chambers

Cladonia norvegica: on base of mossy *Quercus petraea* within upland pasture woodland, Crwnnalt, Carn Gafallt SSSI, Elan valley, VC 42, Breconshire, GR 22(SN)/9321.6407, alt 320 m, October 2014. New to the Vice-county. *N. A. Sanderson*

Cliostomum flavidulum: on *Quercus petraea* within upland pasture woodland, Cwm yr Esgob, Bedw Caemelyn & Crwnnalt, Carn Gafallt SSSI, Elan valley, VC 42, Breconshire, GR 22(SN)/9373.6533, 22(SN)/9407.6532 & 22(SN)/9328.6394, alt 220, 265 & 330 m respectively, October 2014. New to the Vice-county. *N. A. Sanderson*

Clypeococcum hypocenomycis: on *Hypocenomyce scalaris* on decayed hardwood fence post, c. 300 m east of Esgair-y-gors, southwest of Tynygraig, VC 46, Cardiganshire, GR 22(SN)/673.677, alt 260 m, March 2015. Herb. SPC. New to the Vice-county.

S. P. Chambers

Corticifraga fuckelii: parasitic on thallus of *Peltigera didactyla*, Studland Heath, VC 9, Dorset, GR 40(SZ)/038.860, December 2013. New to the Vice-county. *J. Seawright*

Cresponea premnea: On 2 ancient *Quercus* in parkland, Kimberley Park, VC 27, East Norfolk, GR 63(TG)/0941.0524 and 63(TG)/0964.0495, March 2015. A new site for this species of ancient trees.

P. W. Lambley

Cresporaphis weinkampii: on *Salix* trunk beside pond, Chalkwell Park, Chalkwell, Southend-on-Sea, VC 18, South Essex, GR 51(TQ)/958.862, July 2014. Herb. P. M. Earland-Bennett (K). Confirmed by B. J. Coppins.

P. M. Earland-Bennett

Dactylospora parasitica: on *Pertusaria flavicans* on lower basic volcanic tuffs, of crags above Llyn Gafr, Cadair Idris, VC 48, Merionethshire, GR 23(SH)/710.139, alt 480 m, March 2011. Herb. SPC. Confirmed by B. J. Coppins. The first known occurrence of *D. parasitica* on a saxicolous host.

S. P. Chambers

Degelia cyanoloma: on two *Fraxinus* trees in an exceptionally rich grove of *Fraxinus* with *Quercus petraea* and *Acer pseudoplatanus* set in moorland adjacent to the Fish Pond area of The Deer Park, Nannau, VC 48, Merionethshire, GR 23(SH)/7462.2028 & 23(SH)7462.2026, 210 m, November, 2014. The first modern record for Wales for this hyperoceanic lichen, which previously only known from Wales from a 1839 specimen collected from near Dolgellau, which potentially could have been the same or a nearby site.

N. A. Sanderson & A. Seddon

Diplotomma murorum: parasitic on thalli of *Caloplaca teicholyta* on church wall, Kimmeridge, VC 9, Dorset, GR 30(SY)/916.799, March 2014. New to the Vice-county.

J. Seawright

Enterographa sorediata: on dry bark on ancient hollow *Quercus petraea* in under grazed old growth pasture woodland, Bedw Caemelyn, Carn Gafallt SSSI, Elan valley, VC 42, Breconshire, GR 22(SN)/9415.6536, alt 265 m, October 2014. New to the Vice-county and third Welsh record for this species. The highest known tree with this British and Irish endemic. Parasitised by *Milospium graphideorum* (see details under separate entry).

N. A. Sanderson

Epigloea medioincrassata: for details, see under *Paranectria superba* by SPC.

Fellhaneropsis myrtillicola: on *Calluna vulgaris*, Studland Heath, VC 9, Dorset, GR 40(SZ)/036.854, September 2012. Determined by B. Edwards. New to the Vice-county. *J. Seawright*

Gyalideopsis crenulata: on quartz-rich mine spoil blocks, South Llangynog lead mine, VC 47, Montgomeryshire, GR 33(SJ)/052.256, alt 195 m, August 2014. Herb. A. Hotchkiss. Confirmed by S. P. Chambers. New to the Vice-county. *A. Hotchkiss*

Lecania atrynoides: (i) on concrete by steps to beach, Canford Cliffs, Poole, VC 9, Dorset, GR 40(SZ)/062.894. January 2013. New to the Vice-county. *J. Seawright*; (ii) on WW2 concrete block, Bramble Bush Bay, Poole Harbour, VC 9, Dorset, GR 40(SZ)/031.859, January 2015. Second record for Dorset for this species. *J. Seawright & V. Giavarini*

Lecanora strobilina: with *Buellia hyperbolica* on old *Castanea* planted into old growth upland *Quercus* pasture woodland, Fedw Felen, Nannau, VC 48, Merionethshire, GR 23(SH)/7397.2067, alt 225 m, November, 2014. A rarely recorded species, previously found on conifer bark and worked timber. *N. A. Sanderson*

Lecidea grisella: on lignum of wooden palings (now gone) at south end of bus-station, Turret Lane, Ipswich, VC 25, East Suffolk, GR 62(TM)/164.443, recording date 2011- 2012. Herb. Hitch. An unusual substrate for this species, one of twenty six on this substrate, including *Buellia aethalea*, *Candelariella aurella* f. *smaragdula* and *Phaeophyscia nigricans*. *P. M. Earland-Bennett*

Leptorhaphis atomaria: on *Populus alba* in play ground at edge of village, Hartley Wintney, VC 12, North Hampshire, GR 41(SU)/7664.5733, August, 2014. New to the Vice-county. A potentially overlooked species in lowland southern England. *N. A. Sanderson & Wessex Lichen Group*

Lichenonium xanthoriae: parasitic on apothecia of *Xanthoria polycarpa*, Holton Lee, Sandford, VC 9, Dorset, GR 30(SY)/961.914, October 2012. Determined by B. J. Coppins from macro and micro photographs. New to the Vice-county. *J. Seawright*

Megalospora tuberculosa: on one *Quercus petraea* and two *Fraxinus* within mixed upland pasture woodlands, Pen-y-ffridd & Coed y Môch, Nannau, VC 48, Merionethshire, GR 23(SH)/7470.2154, 23(SH)/7411.2016 and 23(SH)/7410.2016, alt 175 & 190m respectively, November, 2014. A new site for this Section 42 species. *N. A. Sanderson & A. Seddon*

Micarea curvata: on top and sloping shoulder of sandstone headstone in churchyard, Marsh Baldon VC 23, Oxfordshire, GR 42(SP)/561.991, April 2015. Herb. Powell 3652. Growing with *Scoliciosporum umbrinum*, and resembling a pallid form of that species in the field but distinctive microscopically. New to the Vice-county. *M. Powell*

Micarea inquinans: on peaty surface film, the host, *Dibaeis baeomyces* having faded away and become smothered in 'gunge', north-facing edge of peat hag in erosion gully in upland blanket bog, Grafea Elan, VC 46, Cardiganshire, GR 22(SN)/815.735, alt 520 m, June 2012. Herb. SPC. Determined by B. J. Coppins. New to Wales. *S. P. Chambers*

Micarea lapillicola: on acid gritstone block on edge of roadway in upland *Picea sitchensis* plantation, Dolgoch, c. 0.75m north of Esgair Gerwyn, VC 46, Cardiganshire, GR22(SN)/786.588, alt 470 m, August 2014. Confirmed by B.J. Coppins. Herb. SPC. New to Wales. S. P. Chambers

Micarea synotheoides: on *Betula* within open *Betula* dominated upland pasture woodland, Fedw Felen, Nannau, VC 48, Merionethshire, GR 23(SH)/7399.2106, alt 240 m, November, 2014. An oceanic species rarely recorded from Wales. N. A. Sanderson & A. Seddon

Micarea xanthonica: on *Quercus petraea* within upland pasture woodland, Crwnnalt, Carn Gafallt SSSI, Elan valley, VC 42, Breconshire, GR 22(SN)/9321.6407 & 22(SN)/9328.6386, alt 320 & 345 m respectively, October 2014. New to the Vice-county. N. A. Sanderson

Milospium graphideorum: on the dry sides of two ancient *Quercus petraea*, parasitic on *Lecanora expallens*, *Calicium viride*, *Enterographa sorediata* and *Lecanographa amylycea*, in under grazed old growth pasture woodland, Cwm yr Esgob & Bedw Caemelyn, Carn Gafallt SSSI, Elan valley, VC 42, Breconshire, GR 22(SN)/9343.6496 & 22(SN)/9415.6536, alt 230 & 265 m respectively, October 2014. New to the Vice-county. N. A. Sanderson

Muellerella lichenicola: (i) parasitic on apothecia and thallus of *Lecanora symmicta* on *Calluna vulgaris*, Studland Heath, VC 9, Dorset, GR 40(SZ)/036.854, September 2012. Determined by Brian Coppins (macro and micro photographs); (ii) on *Lecanora campestris* in churchyard, Steeple GR 30(SY)/911.809, February 2014; (iii) on *Caloplaca flavescens* in churchyard, Arne 30(SY)/972.881, February 2014. New to the Vice-county, also second and third records for Dorset for this species. J. Seawright

Normandina acroglypta: in wound track on old *Betula* with in under grazed old growth pasture woodland, Bedw Caemelyn, Carn Gafallt SSSI, Elan valley, VC 42, Breconshire, GR 22(SN)/9395.6539, alt 220 m, October 2014. New to the Vice-county. N. A. Sanderdson

Ochrolechia arborea: on stems of *Calluna vulgaris* on acidic coastal heath, Studland Heath, VC 9 Dorset, GR 40(SZ)/03-86-, 40(SZ)/03-85- and, 40(SZ)/03-84-, March 2013. Confirmed by B. J. Coppins. Identified by the strong UV+ yellow or orange reaction. First recorded on *Calluna* at coastal sites around the Dornoch Firth, Scotland. New to the Vice-county and third English record. J. Seawright

Opegrapha physciaria (Phacothecium varium): parasitic on thallus of *Xanthoria parietina*, Holton Lee, Sandford, VC 9, Dorset, GR 30(SY)/961.914, December 2012. Determined by B. J. Coppins (macro and micro photographs). New to the Vice-county. J. Seawright

Paranectria superba: on underside of senescent, algal coated *Peltigera hymenina* in metalliferous grass-heath above opencast workings, east end of Esgair-mwyn mine, 1.5 km northeast of Ffair-rhos, VC 46, Cardiganshire, GR 22(SN)/756.691, alt 420 m, October 2014. Herb. SPC. The upper side of the same *P.hymenina* thallus supported *Epigloea medioincrassata*. New to Wales. S. P. Chambers

Paranectria superba: on apothecia of moribund *Peltigera rufescens*, Findhorn Dunes, VC 95, Moray, GR 38(NJ)/04671.64122, March 2015. Herb. H. Paul (E). Determined by B. J. Coppins. Apparently the third ever record of this species. The ascospores are 2–4/ascus, but the dimensions of the spore ‘body’ are larger than given in the protologue (Hawksworth in *Notes RBG Edinburgh* 40: 390–392 (1982)): 38–70 × 23–29 µm vs. 30–45.5 × 13–18 µm, although the caudae [appendages] to the spores are the same at mostly 15–18 µm long. *H. Paul*

Parmulina tiliacea: on bole of *Acer platanoides* in grass verge at side of urban road, Maplin Way, Thorpe bay, Southend-on-Sea, VC 18, South Essex, GR 51(TQ)/926.853, March 2014. Herb. P. M. Earland-Bennett. Determined by B. J. Coppins. New to Essex. *P. M. Earland-Bennett*

Peltigera neckeri: (i) on east-facing moist mossy slope in old Grenfell Limekilns/Quarry, above Loo Gill, Hartside limestone quarry. VC 70, Cumberland GR 35(NY)/6312.4186 alt 450 m, March 2015. Herb. D. Clarke (specimen and digital photographs). Non-fertile patches, the largest about hand-sized and very ‘lush’ in appearance. Confirmed by B. J. Coppins; (ii) about half-way up a steeply sloping, south-facing valley-side with small terraces, with some crumbling Carboniferous Limestone/Sandstone rock and bare soil, Hartside, Loo Gill, VC 70, Cumberland, GR 35(NY)/63580.42630, alt 400 m, April 2015. Herb. D. Clarke (specimens and digital photographs). Confirmed by J. M. Simkin. Several fertile patches in an area of about 1 m². Currently the most westerly records from the North Pennines, and a new tetrad record. *D. Clarke*

Peltigera neckeri: on horizontal, southwest-facing mossy-soily ledge of old limestone quarry on western slopes, Thack Moor, near Croglin, VC 70, Cumberland, GR 35(NY)/5967.4608, alt 350 m, April 2015. Herb. D. Clarke (specimen and digital photographs). Confirmed by C. J. B. Hitch. A hand-sized non-fertile patch. *D. Clarke*

Pertusaria ophthalmiza: on ancient *Quercus petraea* within the top edge of under grazed old growth pasture woodland, Bedw Caemelyn, Carn Gafallt SSSI, Elan valley, VC 42, Breconshire, GR 22(SN)/9407.6529, alt 280 m, October 2014. A new Vice-county record for this upland woodland species, which is very rare south of the West Highlands. *N. A. Sanderson*

Pertusaria ophthalmiza: on three *Quercus petraea*, within old growth upland *Quercus* pasture woodland, Fedw Felen, Nannau, VC48, Merionethshire, GR 23(SH)/7416.2103, 23(SH)/7393.2091 & 23(SH)/7392.2090, alt. 220 – 225m, November, 2014. A new site for an oceanic species that has been rarely recorded from Wales. *N. A. Sanderson*

Petractis clausa: on three chest tombs in churchyard, Walpole St Peter, VC 28, West Norfolk, GR 53(TF)/501.169. March 2015. A second site for this species in the Vice-county. *P. W. Lambley, I. Pedley, M. Powell, L. Saunders & P. Shipway.*

Phaeographis smithii: on a plum twig, Lycett's (former owner) Orchard, Hall Field, Wisbech, VC 28, West Norfolk, GR 63(TF)/477.094, April 2013. Herb L. Saunders. Confirmed by M. Powell. Second record for East Anglia, (see *Bulletin* 100 p. 85), also known from Northamptonshire (P. W. Lambley, pers. comm.) *C. J. B. Hitch*

Pleurosticta acetabulum: on sloping trunk of *Crataegus* in pasture, Kimberley Park, Kimberley, VC 27, East Norfolk, GR 63(TG)/0986.0463, March 2015. Previously recorded from this Park in 1969, but otherwise now the only known East Norfolk site for this once moderately common species. *P. W. Lambley*

Polycoccum slaptoniense: parasitic on thallus and apothecia of *Xanthoria parietina*, Filcombe Farm, Golden Cap, VC 9, Dorset, GR 30(SY)/407.929, November 2013. Determined by Neil Sanderson. New to the Vice-county and second record of this species for Britain and Ireland. See picture below.

J. Seawright, M. Edwards & J. Newbould



Porina byssophila: on bole of *Fraxinus* by stream in valley bottom, in ancient woodland, Coombe Wood, Thundersley, VC 18, South Essex, GR 51(TQ)/783.883, May 2014. Herb. P. M. Earland-Bennett. Confirmed by B. J. Coppins. New to Essex.

P. M. Earland-Bennett

Protoparmelia oleagina: on lignum on *Castanea* stump within old growth upland *Quercus* pasture, Fedw Felen, Nannau, VC 48, Merionethshire, GR 23(SH)/7397.2067, alt 225 m, November, 2014. New to Wales. *N. A. Sanderson*

Protoparmelia oleagina: sparsely fertile on upperside of stock guard fence rail around planted tree in parkland, Powis Castle, Welshpool, VC 47, Montgomeryshire, GR

33(SJ)/216.067, alt 110 m, January 2015. Herb. SPC. Second record for Wales for this species. *S. P. Chambers & H. F. Clow*

Protoparmelia oleagina: sterile, on vertical face of old sandstone headstone, in churchyard, Ellington GR 52(TL)/160.718, February 2015. Herb. Powell 3601. This species appears to be occasionally present on such gravestones where it is not often recognised. As well as the gnarled granular-isidiate thallus, the 'K+ oily' character (fragments of thallus viewed through compound microscope) helps to confirm this species. New to the Vice-county. *M. Powell*

Psilolechia clavulifera: on soil on root plate of fallen *Betula* in the recent woodland on former heathland, Hartley Heath, VC 12, North Hampshire, GR 41(SU)/7588.5819, August, 2014. New to the Vice-county. *N. A. Sanderson & Wessex Lichen Group*

Pyrenula acutispora: very locally abundant on *Corylus* in old *Corylus* stands rich in hyper-oceanic lichens in ravine, Coed Cae'n-y-coed, Ceunant Llennyrch, VC48, Merionethshire, GR23(SH)/654.393, 661.390, 665.389, 665.390 & 666.388, December, 2014. This very population was overlooked in the past, partly as *Pyrenula occidentalis*, as some of the thallus had orange (K-) patches. Locally dominating *Corylus* stems, sometimes with *Pyrenula hibernica*, and growing with other hyperoceanic species such as *Arthopyrenia carneobrunneola*, *Pyrenula laevigata* and *Pyrenula occidentalis*. The first really large population of this are oceanic lichen seen by the author. *N.A. Sanderson*

Pyrenula hibernica: for details, see under *Pyrenula acutispora*.

Pyrenula laevigata: for details, see under *Pyrenula acutispora*.

Pyrenula occidentalis: confirmed on a single *Corylus* bush within an old *Corylus* stand, rich in hyper-oceanic lichens, in ravine, Coed Cae'n-y-coed, Ceunant Llennyrch, VC 48, Merionethshire, GR 23(SH)/6616.3902, December, 2014. Previous records from this ravine were probably all errors for *Pyrenula acutispora*, which can have orange patches on the thallus, although these are K- on *Pyrenula acutispora*. The two species can be definitively separated by the hymenium of *Pyrenula occidentalis* being cloudy, with minute oil droplets, which are lacking in *Pyrenula acutispora*. Other records of *Pyrenula occidentalis* from Wales should be checked. *N. A. Sanderson*

Ramalina farinacea: with *Ramalina fastigiata* and *Hypogymnia tubulosa*, growing directly on clay soil, in an 0.5 metre bare zone around the base of a large *Acer platanoides*, Archer Avenue, Southchurch, Southend-on-Sea, VC 18, South Essex, GR 51(TQ)/901.781, January 2015. Herb. all P. M. Earland-Bennett. *Ramalina fastigiata* is by far the commonest member of the genus, on trees locally, while *R. farinacea* appears to be declining, with *H. tubulosa* decidedly scarce. None of these species occurs on soil in the immediate vicinity. *P. M. Earland-Bennett*

Ramonia chrysophaea: on five old *Quercus petraea* within pasture woodland, Cwm yr Esgob, Bedw Caemelyn, Allt Ddu & Cwm Wood, Carn Gafallt SSSI, Elan valley, VC42, Breconshire, GR 22(SN)/9332.6464, 22(SN)/9332.6487, 22(SN)/9415.6536, 22(SN)/9356.6504 & 22(SN)/9532.6305, alt 245, 210, 265, 230 & 245 m respectively, October 2014. First recent records for the Vice-county for this Section 42 species, with previous records only from Ulmus. *N. A. Sanderson*

Ramonia dictyospora: on two old *Quercus petraea* within pasture woodland, Cwm yr Esgob, & Cwm Wood, Carn Gafallt SSSI, Elan valley, VC 42, Breconshire, GR 22(SN)/9369.6530 & 22(SN)/9535.6325, alt 215 & 230 m respectively, October 2014. New Vice-county record for this Section 42 species. *N. A. Sanderson*

Ramonia dictyospora: on damp, soft bark on south side of large *Acer pseudoplatanus* within structurally modified old-growth woodland, Blaenbarre, c. 1 km northwest of Ffostrasol, VC 46, Cardiganshire, GR 22(SN)/363.493, alt 210 m, October 2014. Herb. SPC. Fourth Vice-county record for this species. *S. P. Chambers*

Rinodina biloculata: on *Calluna vulgaris*, Studland Heath, VC 9, Dorset, GR 40(SZ)/036.885, April 2014. Determined by V. Giavarini. Second record for Dorset for this species. *J. Seawright*

Rinodina calcarea: on south-facing limestone window sill of church, Walpole St Peter, VC 28, West Norfolk, GR 53(TF)/501.169, March 2015. Determined by M. Powell. A new record for the vice county for this species.

P. W. Lambley, I. Pedley, M. Powell, L. Saunders & P. Shipway

Rinodina sophodes: (i) on *Fraxinus* twig of roadside tree, Swineshead Road, Riseley, VC 30, Bedfordshire, GR 52(TL)/047.637, February 2015. Herb. Powell 3595; (ii) on fallen *Fraxinus* twigs in the nearby Flints Wood, GR 52(TL)04-64-. This species appears to be gradually becoming more common in this region. New to the Vice-county. *M. Powell*

Sarcogyne clavus: on sheltered sloping edge and side of coarse Ordovician gritstone slab in sub-montane scree patch, between Y Garn & Drum Peithnant, c. 1.5 km southwest of Pumlumon Fawr, VC 46, Cardiganshire, GR 22(SN)/772.855, alt 600 m, August 2013. Herb. SPC. Determined by B. J. Coppins. New to the Vice-county and confirmation of the presence of *S. clavus* in Wales. *S. P. Chambers*

Schismatomma cretaceum: on two old *Fraxinus*, Swineshead Wood SSSI, VC 30, Bedfordshire, GR 52(TL)/06-66-, February 2015. Field records. New to the Vice-county. *M. Powell*

Schismatomma niveum: on mature *Quercus petraea* on edge of cliff above gorge, within pasture woodland under restoration from past conifer planting, Coed Cae'n-y-coed, Ceunant Llennyrch, VC 48, Merionethshire, GR 23(SH)/6628.3904, December, 2014. New to the Vice-county. *N. A. Sanderson*

Scoliciosporum curvatum: several tiny patches on green PVC plastic-coated chain link fence under roadside trees above Coed Rheidol gorge, Pontarfynach (Devil's Bridge), VC 46, Cardiganshire, GR 22(SN)/740.770, alt 195 m, October 2014. Field record verified from scrape sample. A novel artificial substrate matching the colour and surface texture of an evergreen leaf! *S. P. Chambers & J. M. Simkin*

Scutula dedicata: on *Peltigera didactyla*, Findhorn Dunes, VC 95, Moray, GR 38(NJ)/04971.63833, February 2015. Herb. H. Paul (E). Determined by B. J. Coppins. The specimen has a well-developed granular areolate thallus and numerous pink-brown pycnidia, containing mesoconidia. New to the vice-county and second British Record. *Heather Paul*

Skyttea nitschkei: parasitic on *Thelotrema lepadinum* on ancient *Quercus petraea* within upland pasture woodland, Cwm yr Esgob, Carn Gafallt SSSI, Elan valley, VC 42, Breconshire, GR 22(SN)/9366.6528, alt 21m, October 2014. New to the Vice-county. *N. A. Sanderson*

Sphinctrina anglica: on fertile *Protoparmelia oleagina* on upperside of stock guard fence rail around planted tree in parkland, Powis Castle, Welshpool, VC 47, Montgomeryshire, GR 33(SJ)/216.067, alt 110 m, January 2015. Herb. SPC. New to Wales. *S. P. Chambers & H. F. Clow*

Stereocaulon vesuvianum var. *symphycheileoides*: thalli with very rarely seen pseudopodetia, on top of crumbling garden wall, Tasmania Road, Ipswich, VC 25, East, Suffolk, GR 62(TM)/197.448, December 2011. Herb. P. M. Earland Bennett (E) and Herb. C. J. B. Hitch (T13, T3). The vast majority of specimens seen by us from the British Isles, lack pseudopodetia and merely consist of basal phyllocladia. Also in the majority of cases, these latter are soreciate, especially along their edges, although the type description (Lamb in Vězda (1975)) makes no mention of this fact. *P. M. Earland-Bennett & C. J. B. Hitch*

Strigula taylorii: on large *Fraxinus*, Swineshead Wood SSSI, VC 30, Bedfordshire, GR 52(TL)/063.667, February 2015. Herb. Powell 3621. New to the Vice-county. *M. Powell*

Strigula taylorii: on old hollow *Fraxinus*, Ash Wood, Perry, VC 31, Huntingdonshire, GR 52(TL)/13-66-, March 2015. Herb. Shipway. New to the Vice-county. *M. Powell*

Syzygospora bachmannii: parasitic on podetia of *Cladonia grayi* agg, Studland Heath, VC 9, Dorset, GR 40(SZ)/035.854, December 2014. Initially identified as *Tremella cladoniae* but that species has larger basiospores and occurs on the squamules. New to the Vice-county. *J. Seawright*

Taeniolella phaeophysciae: on thallus of *Phaeophyscia orbicularis* on glass fibre coated salt box, Chalkwell Park, Chalkwell, Southend-on-Sea, VC 18, South Essex, GR 51(TQ)/857.863, June 2014. Herb. P. M. Earland-Bennett. *P. M. Earland-Bennett*

Teloschistes chrysophthalmus: immature thallus on *Crataegus*, Holton Lee, Sandford, VC 9, Dorset, GR 30(SY)/968.911, December 2012. A new 10 km square for this species. *J. Seawright*

Teloschistes chrysophthalmus: single fertile specimen on *Salix cinerea*, on roadside verge, Studland/Godlingston Heath, VC 9, Dorset, GR 40(SZ)/025.843, March 2014. A further new 10 km square for this species. *V. Giavarini*

Thelidium pyrenophorum: on chest tomb in churchyard, Walpole St Peter, VC 28, West Norfolk, GR 53(TF)/501.169. March 2015. Determined by M. Powell. New to the Vice-county. *P. W. Lambley, I. Pedley, M. Powell, L. Saunders & P. Shipway*

Thelidium rehmi: on siliceous stones on ground at edge of woodland, in light shade, Craig-y-Benglog SSSI, Rhydymain, VC 48, Merionethshire, GR 23(SH)/8066.2276, February 2015. Herb. A. Orange 22738 (NMW – C.2015.005.3.) Second British record for this species. See also under **New to the British Isles**. *A. Orange*

Thelotrema petraetoides: on five *Corylus* bushes and one *Fraxinus*, within old an *Corylus* stand rich in hyper-oceanic lichens in ravine, Coed Cae'n-y-coed, Ceunant Llennyrch, VC 48, Merionethshire, GR 23(SH)/6616.3902, 23(SH)/6618.3904, 23(SH)/6618.3904, 23(SH)/6616.3904 & 23(SH)/6617.3903), December, 2014. New to Wales, growing with *Arthopyrenia carneobrunneola*, *Enterographa crassa*, *Pyrenula acutispora*, *Pyrenula hibernica*, *Pyrenula laevigata* and *Pyrenula occidentalis* in an extraordinary stand of relic Atlantic Hazel wood. N. A. Sanderson

Unguiculariopsis thallophila: on *Lecanora chlarotera* on dead branch, Ramscoat Wood, Chesham, VC 24, Buckinghamshire, GR 42(SP)/954.043, October 2014. Herb. H. Paul. Determined by B. J. Coppins. New to the Vice-county. H. Paul

Usnea esperantiana: three records from Dorset, VC 9; (i) on *Salix cinerea*, Eastern Lake Marsh, Studland Heath, GR 40(SZ)/035.850. August 2013. Second record for Dorset for this species; (ii) on *Salix cinerea*, Arne, GR 30(SY)/971.880, February 2014; (iii) Luscombe Nature Reserve, GR 40(SZ)/046891, October 2014. J. Seawright

Usnea esperantiana: on ground in tiny abandoned orchard and small woodland, National Trust NNR, Newtown 'Brickfields' area, VC 10, Isle of Wight, GR 40(SZ)/425.921, November 2014. This small woodland lies adjacent to an uninhabited but preserved brickmakers' cottage, very close to the eroding eastern headland of the NNR harbour entrance. The site is almost inaccessible, other than by boat, as it lies to the west of a MoD firing range. New to the Vice-county. L. & S. Street

Verrucaria fusconigrescens: on ironstone, Studland beach, VC 9, Dorset, GR 40(SZ)/038.828, March 2013. Third record for Dorset for this species and a new 10 km square. J. Seawright

Veizdaea aestivalis: on coastal wall, Branksome Chine, VC 9, Dorset, GR 40(SZ)/062.894. January 2013. Second record for Dorset for this species. J. Seawright

Vouauxiella lichenicola: parasitic on apothecia of *Lecanora chlarotera*, Holton Lee, Sandford, VC 9, Dorset, GR 30(SY)/961.914. January 2013. New to the Vice-county. J. Seawright

Weddellomyces epicallopisma: parasitic on thallus of *Caloplaca flavescens* on horizontal tombstone, in churchyard, Wool, VC 9, Dorset, GR 30(SY)/847.864, February 2013. Determined by B. J. Coppins from macro and micro photographs. New to the Vice-county. J. Seawright

Xanthocarpia diffusa: two records in VC 26, West Suffolk, (i) on dam wall of ornamental lake in garden in valley, Higham Lodge, GR 62(TM)/03-35-, August 2010. Herb. Hitch (R19). Determined by U. Arup, using DNA analysis. C. J. B. Hitch & J. Garrett; (ii) on concrete on pile of tombs in churchyard, Gazeley, GR 52(TL)/769.641, August 2013. Herb. Hitch (M13). Determined by U. Arup using DNA analysis. New to England, Scotland and Ireland. C. J. B. Hitch

Xanthoria ucrainica: on flat cut top surface of softwood fence post erected c. 1996, around fenced-off mine workings, Skinner's Shaft, Glog Fach mine, near Ysbyty

Ystwyth, VC 46, Cardiganshire, GR 22(SN)/747.708, alt 370 m, September 2014. Herb. SPC. New for the Vice-county & seemingly the first reported Welsh record.

C. J. B. Hitch, J. M. Simkin & S. P. Chambers

Xenonectriella lutescens: on moribund *Peltigera* sp., southeast of Lossiemouth, east side of River Lossie, VC 95, Moray, GR 38(NJ)/251.695, January 2015. Herb. H. Paul (E). Determined by B. J. Coppins. The host was either *P. hymenina* or *P. malacea*, both of which were present at the site. New to the Vice-county and third British record for this species. *H. Paul*

Xerotrema quercicola: on standing dead *Quercus* on open slope above a gorge, with in pasture woodland under restoration from past conifer planting, Coed Cae'n-y-coed, Ceunant Llennyrch, VC48, Merionethshire, GR 23(SH)/6625.3906, December, 2014. New record for a Near Threatened RDB species. *N. A. Sanderson*

Zwackhiomyces sphinctrinoides: (i) parasitic on *Placopyrenium fuscillum* on horizontal tombstone in churchyard, Kimmeridge, VC 9, Dorset, GR 30(SY)/916.799, January 2013. Herb. J Seawright. Determined by B. J. Coppins from macro and micro photographs; (ii) on *Placopyrenium fuscillum* in churchyard, Lychett Heath, VC 9, Dorset, GR 30(SY)969.945, January 2014. New to the Vice-county and possibly the first and second records of a lichenicolous fungus on *Placopyrenium fuscillum*.

J. Seawright

Corrigenda

Tremella candelariellae

I wish to thank P. M. Earland-Bennett for bringing the error in the date (*Bulletin* 110, Summer 2012) to my attention. The recording date should have read 2011 and not 2010 as stated.

Parmelinopsis horrescens

I wish to thank B. Benfield for bringing the error “New to the Vice-county” under *Parmelinopsis horrescens* (*Bulletin* 115, Winter 2014) to my attention. The entry should have read New to East Devon.

British Lichen Society Field Meetings & Workshops Programme 2015

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 SUMMER MEETING 2015 – Unst, Shetland (including workshop sessions on the genus *Cladonia*)

Saturday 4th to Friday 10th July 2015

Local organiser: Rebecca Yahr

Cladonia tutor: Annelie Burghause

Unst is the northernmost island in the British Isles. Just 12 miles long by five miles wide it offers a variety of habitats including low, rocky shores, sheltered inlets, high cliffs, fellfield, sub-arctic stony deserts of serpentine, heathery hills, peat bogs and sandy shores but not many trees. **During the week workshop sessions on the genus *Cladonia* will be tutored by Annelie Burghause.** For full details please see BLS Bulletin 115; Winter 2014.

BLS AUTUMN 2015 MEETING – Forest of Dean, Gloucestershire

Thursday 24th to Monday 28th September 2015

Local Organiser – Juliet Bailey

The Forest of Dean is an ancient Royal hunting forest in west Gloucestershire with a wooded heartland of about 15 by 15 miles. The river Wye is to the west and the river Severn to the south, both tidal here. The Dean has a remarkable geology, an elongated bowl rising from sea level to a rim of limestone hills over 200m high, enclosing coal measures, with sandstone coming to the surface around the outer edge. It has a rich industrial heritage of iron and coal mining and stone quarrying dating back to pre-Roman times.

It is especially renowned for its oaks, though few are more than 200 years old when Nelson was scandalised by the condition of the forest and ordered a strategic planting to provide ship-timber. Much of the Dean is now managed by the Forestry Commission for commercial forestry and amenity. Until the 1950s there were

extensive heaths within the Forest. These were planted with conifers at that time, and only in the most recent decades have attempts been made to restore the heathland element.

Big recent changes in the look of the Forest have resulted from the foot-and-mouth epidemic of 2001 when the free-roaming sheep were culled. Sheep are back, but in much reduced numbers. A new element in the mix is a rapidly expanding population of wild boar, currently estimated at about 800. Over the weekend we will explore the impact of these varying elements on the Dean's lichen flora.

Meeting Base

The meeting will be based in the Fountain Lodge, Parkend, Nr. Lydney, Gloucestershire GL15 4JD in the heart of the Forest of Dean. Grid ref SO616078. The Fountain Lodge which is adjacent to the Fountain Inn has been booked for sole occupancy by the BLS. The common room space in the Lodge will be used as the meeting room and 'lab' for the weekend.

Accommodation and costs

Accommodation in the Lodge is in dormitory rooms of various sizes. The plan is to use 17 of the 32 possible bed spaces by occupying the rooms with 2, 2, 3, 4 and 6 people. The cost of staying in the Lodge for the weekend is £60.00 per person. Electricity and showers are included in this cost. Sleeping bags / bedding and towels need to be brought by attendees or a 'bed / towel kit' can be hired for £5.00. Self-catering facilities are available in the Lodge and there is a village store nearby where attendees should be able to buy supplies for breakfasts and packed lunches (including home made pickles!). Breakfasts (£6.95) and packed lunches (£6.95) can be provided at the Inn if ordered at the time of booking.

Booking

To stay in the accommodation in the Fountain Lodge bookings are to be made through the Field Meetings Secretary, Steve Price, by email: fieldmeetings@britishlichensociety.org.uk or by post to Woodlands, Combs Road, Combs, High Peak SK23 9UP. Bookings need to be confirmed with a £30 deposit – cheques made payable to 'The British Lichen Society' (not 'BLS') please. The balance will be requested prior to the meeting. Please state if you need breakfasts, packed lunches and 'bed / towel kit'.

Alternative accommodation

The Fountain Inn adjacent to the Lodge also offers accommodation. Attendees wishing to stay here need to book directly with the Inn (see details below). Other accommodation in the Forest of Dean is listed on the website <http://www.wyedeantourism.co.uk/discover/accom>. If attending the meeting and staying in accommodation other than the Lodge please advise Juliet Bailey jabailey99@gmail.com and Steve Price so that you can be sent details of the itinerary for the meeting.

The Fountain Inn & Lodge contact details

The Fountain Inn & Lodge, Fountain Way, Parkend, Nr. Lydney, Gloucestershire GL15 4JD. Tel: 01594 562 189

Email: welcome@fountaininnandlodge.co.uk Web: <http://fountaininnandlodge.co.uk/>

This website gives details of the Inn and the Lodge.

Timetable

The meeting will run from the evening of Thursday 24th when we meet in the Fountain Lodge to lunchtime on Monday 28th September when the meeting will finish in the field.

The draft programme is as follows:

Thursday 24 September 2015. Meet at Fountain Lodge, Parkend, SO616078 to discuss programme, then an illustrated talk on the history and wildlife of the Dean from Andrew Bluett of the Gloucestershire Naturalists' Society, a native Forester.

Friday 25 September 2015. Morning - Speech House Woodlands SSSI SO621123. This was surveyed for Natural England by Neil Sanderson in 2008 producing 106 species, including three Red Data Book species. Afternoon - move on to Crabtree Hill SO633135 nearby, where there is a tiny remnant of heathland next to an area cleared of conifer plantation in the last ten years with the aim of restoring heathland. I hope to get baseline information to track recolonisation. Evening - given sufficient enthusiasm and remaining daylight, I suggest a visit to Symonds Yat, a famous viewpoint perched high above a loop in the River Wye.

Saturday 26 September 2015. Moseley Green SO634084. This has ancient oaks and young plantation oaks, and an area cleared of conifers where the stumps are producing a good flush of Cladonias. This is also the location of one of the SPLASH ash dieback project monads (if the ash can be located) so, once again we will be producing useful baseline data. An early evening visit to see the Severn at Newnham is possible.

Sunday 27 September 2015. Theme for the day, Industrial Heritage. Morning visit to the ruins of Darkhill Ironworks SO589088, where the Bessemer process was perfected. Afternoon to spoil tip SO634155 north of Cinderford. Early evening visit to see scowles – open-air pits of varying depth and unknown age, some possibly Roman.

Monday 28 September 2015. Morning - Newland Church SO552095, so-called Cathedral of the Forest. It was surveyed by Tom Chester in 1993, who recorded 95 species. What will have changed in the past 20 years? An early afternoon visit to see the Severn estuary at Beachley ST549903 is possible, a stop for those wishing to rejoin the motorway system towards London or the south-west of England.

There are also some interesting hostelrys in the area, which could well feature on this weekend....

Transport

The Fountain Inn, Parkend is alongside the B4234, which runs from Ross-on-Wye to Lydney. There are easy motorway links beyond to the M4, M5, M48 and M50. The Fountain Inn is a two minute walk away from Parkend station, the terminus of the recently renovated Dean Forest Railway. This provides a heritage steam-powered service between Parkend and Lydney Junction - the interchange for Arriva services to Cheltenham, Gloucester, Chepstow, Newport, Maesteg and Cardiff. Bus services also connect Lydney and Parkend.

Useful Maps

OS Landranger 1:50,000 - No. 162 - Gloucester & Forest of Dean

OS Explorer Leisure 1: 25,000 - OL14 - Wye Valley & Forest of Dean

BLS AGM Field Outing – The Tyne Valley

Sunday 17th January 2016

A one day field outing, somewhere in the Tyne valley, will follow the AGM which is due to be held at the Hancock Museum and Newcastle University. Further details to follow.

BLS WINTER WORKSHOP - University of Bristol

The lesser used stains, tests and techniques in lichen identification

Friday 19th to Sunday 21nd February 2016

Host - David Hill

Tutors - Brian Coppins, David Hill and Mark Powell

This workshop will be based on the less used stains, tests, features and techniques helpful in lichen identification. There are quite a few tests for features in apothecial sections like *sedifolia* grey, HNO₃ reactions, crystal tests for lecanoric/gyrophoric acids. Not all the colour changes in for example apothecial sections that are described in keys and descriptions are correctly observed, especially if one does not know exactly what to look for e.g. how much does the colour actually change. Additionally there are the less obvious spore characters and anatomical characters e.g. tissue types such as in cortex of *Physciaceae* and exciples of *Collema* and epinecral layers.

Costs

There is a charge of £50 per attendee to cover part of the cost of using the laboratory, the balance of the cost is being subsidised by the BLS.

Outline timetable

Friday 19th 19.30 – introduction and evening tuition;
Saturday 20th morning – field trip to local site;
Saturday 20th afternoon – tuition and laboratory work;
Sunday 23rd to 16.00 – tuition and laboratory work.

Booking on the workshop

Places on the workshop are limited. Expressions of interest and booking should be made through the David Hill email: D.J.Hill@bristol.ac.uk and send the workshop fee of £50 to him at Yew Tree Cottage, Yew Tree Lane, Compton Martin, Bristol BS40 6JS . Cheques to be made payable to 'The British Lichen Society' (not 'BLS' please).

Further information

Maps, site plans and further details of the workshop and accommodation will be sent out to attendees prior to the meeting.

BLS SPRING MEETING 2016 – Isle of Wight

Friday 15th to Friday 22th April 2016

Local Organiser – Sheila and Les Street

The County of the Isle of Wight is relatively small. Its diamond shape measures 37 km west to east and 22km north-south. Crammed into its 380 sq. km, however, are most of the important semi-natural habitats found in southern England. These comprise nationally important areas of chalk downland and other grasslands, nationally important coastal and intertidal mudflat, dune, shingle and saltmarsh habitats ranging from the calm Solent to the windswept south coast. Its three rivers are short, flow northwards and hold some important freshwater marshlands and a few tiny acid bogs. Heavy clays in the northern half of the island contain interesting broadleaved woodlands and some conifer plantations. The eroding southern coastline provides ecologically important transient habitats for plants and invertebrates. Farming impacts are generally less intense than nearby counties and the patchwork of arable and grass fields are mostly surrounded by hedges. Substantial areas in the southern part of the island rise to well over 150 metres AOD and comprise interesting heathland habitats, in addition to chalk downland.

This habitat diversity is largely due to its extremely varied geology ranging from Cretaceous sands, chalk, flints and assorted clays in the south, mixed with greensands along the centre and overlain with recent Pleistocene alluvium and plateau gravels in the north. The island's mild and sunny climate also exerts a major influence over species and habitats.

Over 400 species of lichens have been recorded and the most interesting habitats comprise ancient broadleaved woodlands and meadows, lowland heathland,

old churches, chalk outcrops and downland, cliffs and dunes. We will visit England's most extensive *Fulgensia/Squamarina* clifftop community, *Cladonia-rich* heaths and ancient churches with excellent saxicolous lichen assemblages including one with abundant *Rocella phycopsis*. Coastal scrublands contain several thalli of *Teloschistes chrysophthalmus*. Several new lichen species have been added in recent years and there are undoubtedly more to discover.

Meeting Base

The meeting will be based in the Norton Grange Coastal Village, Yarmouth, Isle of Wight PO41 0SD. See <http://www.warnerleisurehotels.co.uk/hotels/norton-grange-holiday-village> to have a look at the accommodation, facilities and entertainment on offer. *Who needs entertainment when there is microscope work to do?*

Accommodation and costs

Accommodation in 17 single and 4 twin chalets has been booked by the BLS. Including breakfast and three course dinner the cost per person is £298.00 for the week. If we have enough attendees to take all 25 places booked then the cost per person will reduce to £255.00 for the week.

Microscope work

A lockable meeting room on the complex has been reserved for the duration of the meeting for microscope work and presentations.

Booking

To stay in the accommodation in Norton Grange bookings are to be made through the Field Meetings Secretary, Steve Price, by email: fieldmeetings@britishlichensociety.org.uk or by post to Woodlands, Combs Road, Combs, High Peak SK23 9UP. Bookings need to be confirmed with a £35 deposit – cheques made payable to 'The British Lichen Society' (not 'BLS') please. The balance will be paid by BLS 10 weeks before the meeting – and will be requested from attendees a couple of weeks before then.

Timetable

The meeting will run from the evening of Friday 15th when we will gather after dinner for an introductory meeting. We vacate the accommodation first thing on the Friday 22nd April. Check in is from 12 noon on Friday 15th. Further details of the programme will be sent out to attendees nearer the time of the meeting.

Transport

Vouchers for discounted ferry travel will be available.

Useful Maps

OS Landranger 1:50,000 - OS Landranger - 196 The Solent & Isle of Wight, Southampton & Portsmouth

OS Explorer Leisure 1: 25,000 - OS Explorer Leisure - OL29 - Isle of Wight

BGS 1:50,000 – Special Sheet – Isle of Wight – bedrock and superficial deposits

BLS SUMMER MEETING 2016 – Sleat, Isle of Skye

Saturday 11th to Saturday 18th June 2016

Local Organiser – Steve Price

This peninsula at the southern end of Skye has many unrecorded coastal areas and is within easy reach of the complex geology of central Skye.

Meeting Base

The meeting will be residential in the Sabhal Mòr Ostaig UHI, Sleat, Isle of Skye, Scotland IV44 8RQ (Slèite, An t-Eilean Sgitheanach, Alba IV44 8RQ). See www.smo.uhi.ac.uk to have a look at the accommodation and facilities.

Accommodation and costs

Accommodation in 20 single rooms has been reserved. Subject to availability additional rooms may be able to be booked later. The prices for 2016 are not yet known. As a guide the 2015 prices are: single room £38.00 per night b&b; a 2 course dinner £12.00. Twin rooms are also available.

Microscope work

A meeting room in the college has been reserved for the duration of the meeting for microscope work and presentations.

Booking

Expressions of interest should be made to the Field Meetings Secretary, Steve Price, by email: fieldmeetings@britishlichensociety.org.uk or by post to Woodlands, Combs Road, Combs, High Peak SK23 9UP. Further details about costs and the booking procedure will be sent out when known.

Timetable

The meeting will run from the evening of Saturday 11th when we will gather after dinner for an introductory meeting. We vacate the accommodation first thing on the Saturday 18th. Further details of the programme will be sent out to attendees nearer the time of the meeting.

Transport

The Skye: Mallaig to Armadale car ferry arrives on Skye 3.5 km south of the college. See <https://www.calmac.co.uk/> for ferry details. Mallaig can be reached by rail from Glasgow and Fort William.

Relevant Maps

OS Explorer Leisure 1: 25,000 - OS Explorer - 412 - Skye - Sleat

OS Explorer Leisure 1: 25,000 - OS Explorer - 411 - Skye - Cuillin Hills

OS Landranger - 32 - South Skye & Cuillin Hills

BGS 1:50,000 – Scotland 071E – Kyle of Lochalsh – bedrock and superficial deposits

BGS 1:50,000 – Scotland 071W - Broadford – bedrock and superficial deposits
BGS 1:50,000 – Scotland 061 - Arisaig – bedrock and superficial deposits
BGS 1:25000 – Classic Area 48 – Skye Central Complex

Steve Price, BLS Field Meetings Secretary

The event advertised below is not organised by the BLS, but many be of interest to members....

***A Life in Ecology –
A Celebration of the Work and Inspiration of Dr Oliver Gilbert,
Pioneer Ecologist***

13th & 14th November 2015 at Sheffield Hallam University (with field visit / River Don lectures on 13th November) Sheffield, UK



It is ten years on from Ollie's premature death. This 2-day conference, supported by the BES, is being organised by Professor Ian Rotherham and Dr Paul Ardron both long-term friends and associates of the late Dr Oliver Gilbert to encompass his many interests and as a celebration of his contributions to urban ecology, lichenology, exotic plants, and urban and post-industrial landscapes over a period of 50 years.

Invited speakers will deliver papers relating to topics, which reflect some of Oliver's many interests that included 'alien' species, lichens, urban woodlands, and the flora associated with post-industrial sites. Oliver was one of the first academic ecologists to look in detail at the urban environment and he established terms such as 'the urban commons', and his book *The Ecology of Urban Habitats* still stands alone as the primary text in this field. He also challenged much conventional thinking on the merits or otherwise of invasive aliens such as sycamore and Japanese knotweed. Along with George Barker, Oliver pioneered academic interest in urban habitats and in urban ecology. Speakers include Professor Mark Seaward, Dr Penny Anderson, Dr Rob Francis, Dr Peter Shaw, Professor Melvyn Jones, Dr Anna Jorgensen and Dr John Barnatt. There will be a celebratory volume of conference papers from the event.

More information and a booking form are available from our website www.ukeconet.org/events/ Costs start from £25 per day for volunteers to £50 per day for academics. If you would like to be put on our mailing list or would like to offer support or a poster presentation for this conference, please email info@hallamec.plus.com or telephone 0114 2724227.



BLS Late Summer Field Meeting - Southern Lake District

Saturday 30th August to Saturday 6 September 2014

Local organiser: Allan Pentecost



The BLS group meeting prior to a day on the slopes of Coniston Old Man. *left to right – standing:* Oliver Moore, Keith Cavanagh, Juliet Bailey, Allan Pentecost, Sue Knight, Les Knight, Katie Grundy, Catherine Tregaskes, Brian Coppins, Amanda Waterfield, Graham Boswell, Paul Cannon, Pat Cavanagh, John Jones, Steve Price, Christopher Young. *seated:* Ginnie Cosey, Maxine Putman, Janet Simkin. *photo Steve Price*

Introduction

Over a period of six days of glorious weather the group visited a wide range of sites in the Southern Lakes. The local field leader, Allan Pentecost, surprised us by recounting how few records there were for the area. Francis Rose had recorded further north in Cumbria but most records for the south of Cumbria had been provided by the Churchyard group and so the exciting prospect of many unrecorded squares was highlighted.

The meeting was based at Castle Head Field Studies Centre near Grange over Sands. The Centre usually only takes school parties but as it was out of term time they were happy to accommodate 17 of us in their 120 bed establishment. On the afternoon of Saturday 30th many of us arrived at the Centre which was a huge mansion, to find it open but deserted- a bit disconcerting as we were booked in for dinner. Steve had

managed to acquire a list of our room numbers and locate the lab. The cheerful Centre warden, Lesley, and skeleton staff soon arrived. Lesley's offer of a tour of the rambling buildings was well received and included the large "chapel" and dance area which could be our chill-out and tea/coffee areas, a luxurious lounge (which turned out to be the best spot for internet connections) and the bar (which worked on an honesty system). Later in the week a group of us were shown the Centre's modern molecular genetics lab, which was very well equipped due to donations from Astra Zenica. Unfortunately we didn't get chance to use the observatory. A group from a private school in London arrived at the end of the week and Juliet Bailey and Judith Allinson gave them a short introduction to lichens. This was well received and prompted their course leader to suggest making further links with the school.

During the first evening Allan gave a short presentation about the area, particularly the varied geology of the sites we were to visit. The areas were mainly Carboniferous and Silurian- fine greywacke which was lime rich. The group visited the calcareous rocks of the Dent group and volcanic rocks of the Borrowdale Volcanic group near Conistone Old Man which produced lichen with differing habitat requirements within close proximity to each other. A most unusual rock type was the basic slag near Barrow and limestone stained red by haematite. The area has high rainfall (1000-1500 mm) but not high humidity. In addition it is nitrate and phosphate rich due to its agricultural nature and so does not support the leafy cyanolichen flora typical of many north western Atlantic coastal areas.

Attendees:

Juliet Bailey, Graham Boswell, Keith Cavanagh, Pat Cavanagh, Paul Cannon, Brian Coppins, Ginnie Copsey, Katie Grundy, John Jones, Les Knight, Sue Knight, Oliver Moore, Allan Pentecost, Steve Price, Maxine Putman, Janet Simkin, Catherine Tregaskes, Amanda Waterfield, Christopher Young. We were joined by two of Allan's colleagues, Judith Allinson a local botanist and Michael Dewey who gave us all copies of the leaflets he had written on local geology for Cumbria RIGS (a local group formed to identify and record places which were important for their geology and geomorphology. Mike's geological expertise and local knowledge were invaluable during the week. He also drew our attention to Deweys (named after him), which he had listed. These were hills over 500m but less than 609.6m (2000 ft).

Sunday 31st August: Our first stop was the **Holker Estate** to look at an avenue of trees and boundary walls. Michael was soon introduced to the slow pace typical of lichenologists and appreciated Amanda's description of us as a "creep" of lichenologists. Perhaps we should have a suggestions page in the Bulletin for a collective term to describe us, but then again perhaps not! The walls produced some interesting records and the largest rock specimen collected during the whole trip. Most of the day was spent on the limestone of **Barker Scar**, where the baking sun led to multiple stops for coffee and /or lunch. The normal view of lichenologists- a row of bottoms in the air was replaced by a row of sunhats pressed against the limestone rock face. The limestone Scar was interesting geologically being the type section for the Holkerian stage.

Members returned to the labs after dinner, with Allan providing background information for the following day- a useful pattern which was followed throughout the week. Les gave a short talk on the use of DMap, encouraging its use to show where species were recorded. People then continued with microscope work, the BLS microscopes being well used. The evening ended with a trip to the honesty bar for a few, however there was no way anyone could get a drink discretely as the key was attached to a 30cm pole which clanked noisily as it was used.



Caloplaca chlorina along with *Lecanora saligna* on a fence post at Ulpha Farm (see below)

Monday 1st September: Most of the day was spent in the woodland and the tracks around **Ulpha Crag**. Groups split off to look at different areas and habitats and found a wide range of species. Judith made a valiant effort to get us to re-group only to find that most of us were going in circles. When a barbed wire fence was encountered Pat volunteered her kneeler to offer protection – much appreciated by all, especially those with short legs. Katy, Oliver, Catherine and Ginnie had opted to walk to the site, not only gaining records but Brian, the dog that is. Brian adopted us for the full day enjoying our company, more than can be said for us after he rolled in cow muck. He became our stand in for the real Brian and there was concern he might try to follow us back but much to our relief returned to his own home. We ended the day near the estuary waiting to see the Kent Bore. Having heard the warning sirens and

even spotted people on the other side of the estuary there was great anticipation. However when nothing had happened after about 45mins we got bored and headed home. (Apologies for the pun, I can hear the groans)

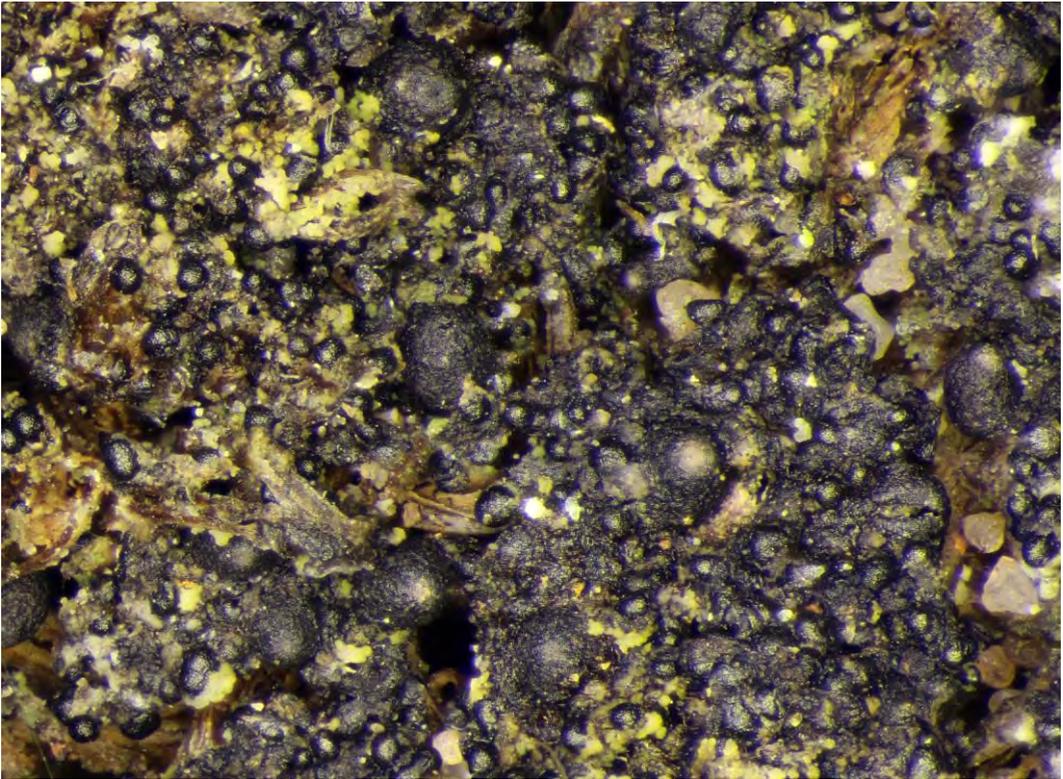


Toninia verrucarioides on a bridge parapet on the Meathop estate

Tuesday 2nd September A picturesque track led us through **Grisedale Forest** to the waterfalls of **Force Mills** where a range of aquatic lichens were found. Small groups took different routes back to the car park, again increasing the number of records. In the afternoon we went to **Rocky Common** at **Witherslack** and **Halecat Gardens** which was home to artists and a small garden centre, however the old orchard was our focus. It didn't prove to be as rich as expected however an additional site at **Nicholl's Moss Cumbria Wildlife Trust Reserve** was suggested by Michael. This turned out to have some interesting *Cladonias* including *C. digitata* and *C. incrassata*. Back at the Centre, Katy supplemented the sponge cake desert with raspberries, blueberries and cheesecake and Juliet provided fruit. All much appreciated. It was also Happy Birthday to Graham and although we had no birthday cake, Graham provided some wine and whisky to keep us going in the lab.

Wednesday 3rd September: We started the day at **Askham Pier** which had not been recorded previously. This was a spit of slag from the iron works which had been tipped into the estuary and no doubt had some unusual chemistry. Katy and Oliver added to the range of habitats recorded by sampling the old wooden hull of an upturned boat, much to the amazement of a man who was living on the next boat in

the bay. Nearing the cars we spotted a man and his dog at the end of the pier. In spite of a chorus of “it’s not one of ours” Janet and Steve found time for a chat with him only to discover that he was the ex-warden of the next site we were to visit, **Sandscale Haws NNR**. Not only did he give an indication of the location of a pond among the sand dunes that Allan was keen to visit but he had lichen records of his own which he could send to Janet. Once in the sand dune area we had a long walk in the intense sun trying to find our way between the high dunes. The lichens were relatively poor but there was considerable excitement over some of the higher plants. A small area of trees provided shade an excitement yielding, at approx. 20cm long, the largest *Ramalina fraxinea* we had seen. Allan eventually found the elusive pond after which we all headed back along the beach. Back at base that evening there were still nine people in the lab at 9.00pm.



Agonimia globulifera from Askham Pier, with large perithecia and small sterile thalline globules

Thursday 4th September: We started the day with a visit to **Broughton** looking at an area of parkland. This proved to be relatively poor in species numbers although some of the trees yielded interesting specimens. The village was the most expensive one in the South Lakes to live in. Its bakery produced huge sausage rolls to sustain some of the group. After lunch we drove up **Dunner Dale** to ascend **Parson’s Gill** where followed a very well made track along the side of an almost dry gill. Brian Coppins

joined us, the sun shone, the scenery was wonderful and the species count grew – what more could we ask for.



Mycoglaena myricae, a common but inconspicuous lichen on stems of *Myrica gale*; from the banks of Coniston Water

Friday 5th September: Our last day started with an “interesting” climb in the cars to the base of **Coniston Old Man**. With the volcanic rock and limestone so close together it was fascinating to see the range of species as the group made its way up the hillside. Some of the group headed for higher ground while others continued to add to their photographic records. Allan had hoped to re-find *Protopannaria* but this was not to be. We finished the day recording along the shoreline of **Coniston Lake** and the woodland edging the lake where Brian showed me his namesake *Micarea coppinsii* which I saw for the first time.

After dinner Juliet, on behalf of the group, thanked Allan for a great week of wonderful weather, wonderful scenery, great company and a huge number of records. He was presented with a cardboard-box full of an assortment of local bottled ales. Over 1400 site records were made of 391 taxa with 360 new 10km/species records.

Sue Knight

| Taxa | Castlehead FSC centre | Holker - Old Park | Head Barker Scar & Capes | Moss | Meathop & Meathop | Ulpha - Farm & Crag | Bitswood Point | Mills Falls | Swainley Hall, Force | Common Witherlack - Halecat | Witherslack - Rocky | Witherslack - Rocky | Common Witherlack - Halecat | Swainley Hall, Force | Mills Falls | Bitswood Point | Ulpha - Farm & Crag | Meathop & Meathop | Moss | Head Barker Scar & Capes | Holker - Old Park | Castlehead FSC centre | |
|--|-----------------------|-------------------|--------------------------|------|-------------------|---------------------|----------------|-------------|----------------------|-----------------------------|---------------------|---------------------|-----------------------------|----------------------|-------------|----------------|---------------------|-------------------|------|--------------------------|-------------------|-----------------------|---|
| <i>Acarospora fuscata</i> | | | | | | • | | • | | • | | | | | | | | | | | | | |
| <i>Acarospora impressula</i> | | | | | | • | | | | | | | | | | | | | | | | | |
| <i>Acarospora veronensis</i> | | | | | | • | | | | • | | | | | | | | | | | | | |
| <i>Acrocordia conoidea</i> | | • | • | • | | | | | • | | | | | | | | | | | | | | |
| <i>Acrocordia gemmata</i> | | | | | | • | | | | | | | | | | | | | | | | | |
| <i>Acrocordia salweyi</i> | | | | | | | | | | | | • | | | | | | | | | | | |
| <i>Agonimia globulifera</i> | | | | | | | | | | | | • | | | | | | | | | | | |
| <i>Agonimia tristicula</i> | | | • | | | | | | | | | • | | | | | | | | | | | |
| <i>Amandinea punctata</i> | | • | | | | | | | | | | | | | | | | | | | | | |
| <i>Amygdalaria pelobotryon</i> | | | | | | | | | | | | | | | | | | | | | | • | |
| <i>Anisomeridium biforme</i> | | • | | | | | | | | | | | | | | | | | | | | | |
| <i>Anisomeridium polypori</i> | • | | | | | | | • | | | | | | | | | | | | | | | |
| <i>Anisomeridium ranunculosporum</i> | | | • | | | | | | | • | | | | | | | | | | | | | |
| <i>Arthonia didyma</i> | | | | | | | | | | | | | | | | | | | | | | | • |
| <i>Arthonia elegans</i> | | | | | | | | • | | | | | | | | | | | | | | | |
| <i>Arthonia pruinata</i> | | | | | | | | | | | | | | | | | | | | | | | |
| <i>Arthonia punctiformis</i> | | | | | | | | | | | • | | | | | | | | | | | | • |
| <i>Arthonia radiata</i> | | • | • | | | • | | • | • | • | | • | | • | | | | | | | | | • |
| <i>Arthonia varians</i> | | | | | | | | | • | | | | | | | | | | | | | | |
| <i>Arthopyrenia analepta</i> | | | | | | | | | | | | | | | | | | | | | | | • |
| <i>Arthrorhaphis citrinella</i> | | | | | | | | | | | | | | | | | | | | | | • | • |
| <i>Aspicilia caesiocinerea</i> | | | | | | • | | • | | • | | | | | | | | | | | | • | • |
| <i>Aspicilia calcarea</i> | • | | • | • | • | | | | • | | | • | | | | | | | | | | • | |
| <i>Aspicilia cinerea</i> s. lat. | | | | | | • | • | | | | | | | | | | | | | | | | |
| <i>Aspicilia contorta</i> subsp. <i>contorta</i> | | | • | | | | • | | | | | | | | | | | | | | | | |
| <i>Aspicilia contorta</i> subsp. <i>hoffmanniana</i> | | | • | | | | | | | | | | | | | | | | | | | | |
| <i>Aspicilia grisea</i> | | | | | | | | | | | | | | | | | | | | | | • | |
| <i>Bacidia inundata</i> | | | | | | | | • | | | | | | | | | | | | | | | |
| <i>Baeomyces placophyllus</i> | | | | | | | | | | | | | | | | | | | | | | • | |
| <i>Baeomyces rufus</i> | | | | | | | | • | | | | | | | | | | | | | | • | • |
| <i>Belonia nidarosiensis</i> | | | | | | | | | | • | | | | | | | | | | | | | |
| <i>Bilimbia sabuletorum</i> | | | • | | | | | | | | | | | | | | | | | | | • | |
| <i>Buellia aethalea</i> | | | • | | | • | • | | | • | | • | | | | | | | | | | • | • |
| <i>Buellia disciformis</i> | | | | | | | | | | | | | | | | | | | | | | | • |

| Taxa | Castlehead FSC centre | Holker - Old Park | Head Barker Scar & Capes | Moss | Meathop & Meathop | Ulpha - Farm & Crag | Bitkswood Point | Mills Falls | Swainley Hall, Force | Common Witherstick - Halecat | Witherslack - Rocky | Wetherstick - Moss | Askam Pier, Roanhead | Sandscale Haws | Broughton Park | Coniston - Limestone & Lone Haws | Parsons Gill & Cats | Walna Scar | Coniston Water |
|---|-----------------------|-------------------|--------------------------|------|-------------------|---------------------|-----------------|-------------|----------------------|------------------------------|---------------------|--------------------|----------------------|----------------|----------------|----------------------------------|---------------------|------------|----------------|
| <i>Buellia griseovirens</i> | | | | | | | | | | • | | | • | | | | | | • |
| <i>Buellia ocellata</i> | | | | | | | | | | | • | | | | | • | | | |
| <i>Buellia stellulata</i> | | | | | | | | | | | | | | | | | • | • | |
| <i>Caloplaca aurantia</i> | | | • | • | | | | | | | | | | | | | | | |
| <i>Caloplaca ceracea</i> | | | | | • | • | | | | | | | | | | | | | |
| <i>Caloplaca cerinella</i> | | • | • | | • | • | | | | | | | | | | | | | |
| <i>Caloplaca chlorina</i> | | • | | | • | • | | | | | | | | | | | | | |
| <i>Caloplaca chrysojeta</i> | | | • | | | | | | | | | | | | | | | | |
| <i>Caloplaca cirrochroa</i> | | | • | | | | | | | | | | • | | | | | | |
| <i>Caloplaca citrina s. lat.</i> | | | • | | • | • | | | | | | | • | | | | | | |
| <i>Caloplaca citrina s. str.</i> | | | | | | | | | | | | | • | | | | | | |
| <i>Caloplaca crenularia</i> | | | | | | | • | | | | | | | | | • | | | • |
| <i>Caloplaca flavescens</i> | • | • | • | • | • | • | | | • | | | | | | | | | | |
| <i>Caloplaca flavovirescens</i> | | | | | • | • | | | | | | | | | | | | | |
| <i>Caloplaca holocarpa s. lat.</i> | | | | | | • | | | | | | | | | | | | | |
| <i>Caloplaca limonia</i> | | | | | | | | | | | | | • | | | | | | |
| <i>Caloplaca marina</i> | | | | | | | • | | | | | | • | | | | | | |
| <i>Caloplaca maritima</i> | | | | | | | | | | | | | • | | | | | | |
| <i>Caloplaca microthallina</i> | | | | | | | • | | | | | | • | | | | | | |
| <i>Caloplaca oasis</i> | | • | • | | • | • | | | | | | | • | | | | | | |
| <i>Caloplaca obscurella</i> | • | | | | | | | | | | | | | | | | | | |
| <i>Caloplaca ochracea</i> | | | • | • | | | | | | | | | • | | | | | | |
| <i>Caloplaca thallincola</i> | | | • | | | | • | | | | | | • | | | | | | |
| <i>Caloplaca variabilis</i> | | | • | | | | | | | | | | | | | | | | |
| <i>Candelaria concolor</i> | | | | | | • | | | | | | | | | • | | | | |
| <i>Candelariella aurella forma aurella</i> | | | | | | • | | | | | | | | | | • | | • | |
| <i>Candelariella coralliza</i> | | | | | | • | | | | • | | | • | | | | | • | |
| <i>Candelariella reflexa</i> | • | • | • | | • | • | | | • | • | | • | | • | • | | | | • |
| <i>Candelariella vitellina forma flavovirella</i> | | | | | | | | | | | | | | | | | | | |
| <i>Candelariella vitellina forma vitellina</i> | | | | • | • | • | • | • | • | • | | | | | • | • | • | • | • |
| <i>Catillaria atomarioides</i> | | | | | | | | • | | • | | | | | | | | | |
| <i>Catillaria chalybeia var. chalybeia</i> | | | | | | • | | | | | | | • | | • | • | | | • |
| <i>Catillaria chalybeia var. chloropoliza</i> | | | | | | | | | | | | | | | | • | | | |

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| <i>Catillaria lenticularis</i> | | | | | | | | | | | | | | | | | | | | | | | | |
| <i>Catillaria nigroclavata</i> | | | | | | | | | | | | | | | | | | | | | | | | • |
| <i>Cetraria aculeata</i> | | | | | | • | | | | | • | | | | | | | | | | | | | • |
| <i>Chaenotheca ferruginea</i> | | | | | | | | | | | | | | | | | | | | | | | | • |
| <i>Cladonia arbuscula</i> subsp. <i>squarrosa</i> | | | | | | | | | | | | | | | | | | | | • | | | | |
| <i>Cladonia caespiticia</i> | | | | | | | | | | | | | | | | | | | | | | | | • |
| <i>Cladonia cervicornis</i> subsp. <i>cervicornis</i> | | | | | | • | | | | | • | | | | | | | | | • | • | | | |
| <i>Cladonia chlorophaea</i> s. lat. | | | • | • | • | • | | • | • | | | • | | | | • | | | • | | | | | |
| <i>Cladonia ciliata</i> var. <i>ciliata</i> | | | | | | | | | | | | | | | | • | | | | | | | | |
| <i>Cladonia ciliata</i> var. <i>tenuis</i> | | | | | | • | | | | | • | • | | | | | | | • | | | | | |
| <i>Cladonia coccifera</i> s. lat. | | | | | | • | | • | | • | • | | | | | | | | | • | | | | |
| <i>Cladonia coniocraea</i> | | | | | • | • | | • | | • | • | | | | | | | • | | | | | | • |
| <i>Cladonia crispata</i> var. <i>cetrariiformis</i> | | | | | | | | • | | | | | | | | | | | | | | | | |
| <i>Cladonia digitata</i> | | | | | | • | | | | | | • | | | | | | • | | | | | | |
| <i>Cladonia diversa</i> | | | | | | • | | • | | • | | | | | | | | | • | | • | | | |
| <i>Cladonia fimbriata</i> | | | • | | • | • | | • | • | • | • | • | | | | | | | • | • | | | | • |
| <i>Cladonia floerkeana</i> | | | | | | • | | | | | | • | | | | | | | • | • | | | | • |
| <i>Cladonia foliacea</i> | | | | | | | | | | | | | | | | • | | | | | | | | |
| <i>Cladonia furcata</i> subsp. <i>furcata</i> | | | | | | • | | | | • | | | | | | • | | | • | • | • | • | | |
| <i>Cladonia glauca</i> | | | | | | | | | | | | | • | | | | | | | | | | | |
| <i>Cladonia gracilis</i> | | | | | | | | | | | • | | | | | | | | | | | | | |
| <i>Cladonia incrassata</i> | | | | | | | | | | | | | • | | | | | | | | | | | |
| <i>Cladonia macilenta</i> | | | | | | • | | • | | • | | | | | | | | | | | | | | |
| <i>Cladonia pocillum</i> | | | • | | | | | | | | | | | | • | • | | | | • | | | | |
| <i>Cladonia polydactyla</i> var. <i>polydactyla</i> | | | • | | • | | | • | | • | • | • | | | | | • | | • | | | | | • |
| <i>Cladonia portentosa</i> | | | | • | • | | | | | • | • | | | | | | | | • | • | | | | |
| <i>Cladonia pyxidata</i> | | | • | | • | | | • | • | | | | | | | | | • | • | | | | | |
| <i>Cladonia ramulosa</i> | | | | | | • | | | | | | | | | | | | | • | | | | | • |
| <i>Cladonia rangiformis</i> | | | • | | • | | | | | | | | | | • | • | | | | | | | | |
| <i>Cladonia scabriuscula</i> | | | | | | • | | | | | | | | | | | | | | | | | | |
| <i>Cladonia squamosa</i> s. lat. | | | | | | | | | | | | | | | | • | | | | | | | | |
| <i>Cladonia squamosa</i> var. <i>squamosa</i> | | | | | | | | • | | | | | | | | | | | • | | | | | |

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| <i>Evernia prunastri</i> | | • | • | • | • | | • | • | • | • | • | | • | • | • | • | • | | | | • |
| <i>Flavoparmelia caperata</i> | | • | • | • | • | | • | • | • | • | • | | • | • | • | • | • | | | | • |
| <i>Fuscidea cyathoides</i> var. <i>cyathoides</i> | | | | | • | | | | | • | | | | | | | • | • | • | | • |
| <i>Fuscidea lightfootii</i> | | | • | | • | | • | • | • | | | | • | | • | • | • | | | | • |
| <i>Fuscidea lygaea</i> | | | | | | | | | | | | | | | | | • | • | • | | • |
| <i>Fuscidea praeruptorum</i> | | | | | | | | | | | | | | | | | • | | | | • |
| <i>Fuscidea recensa</i> | | | | | | | | | | | | | | | | | • | | | | |
| <i>Graphis elegans</i> | | | | | | | • | | • | | | | | | | | | | | | • |
| <i>Graphis scripta</i> | • | | | | | | • | • | • | | | | | | | • | • | | | • | • |
| <i>Gyalecta jenensis</i> var. <i>jenensis</i> | | | | | | | | | | | | | | | | | | • | | | |
| <i>Hydropunctaria maura</i> | | | • | | | • | | | | | | | • | | | | | | | | |
| <i>Hyperphyscia adglutinata</i> | | | | | • | | | | | | | | | | | • | | | | | |
| <i>Hypocenomyce scalaris</i> | | | | | | | | | | | | | | | | • | | | | | |
| <i>Hypogymnia physodes</i> | | | • | | | | • | | • | | | | | | • | | • | | | | • |
| <i>Hypogymnia tubulosa</i> | | | • | | | | • | | • | | | | | | • | | | • | | | |
| <i>Hypotrachyna afrorevoluta</i> | | | | | • | | • | • | • | | | | | | | • | • | | | | • |
| <i>Hypotrachyna britannica</i> | | | | | • | | | | | | | | | | | | | | | | |
| <i>Hypotrachyna revoluta</i> s. <i>lat.</i> | | | | | | | | | | • | | | | | | | • | | | | |
| <i>Hypotrachyna revoluta</i> s. <i>str.</i> | | • | • | | | | • | • | • | | | | | | • | | | | | | • |
| <i>Immersaria athroocarpa</i> | | | | | | | | | | | | | | | | | • | | | | |
| <i>Ionaspis lacustris</i> | | | | | • | | • | | • | | | | | | | | • | • | | | • |
| <i>Lasallia pustulata</i> | | | | | • | | | | • | | | | | | | | • | • | | | |
| <i>Lecania cuprea</i> | | | • | | | | | | | | | | | | | | | | | | |
| <i>Lecania cyrtella</i> | | • | | | • | | • | | | | | | | | | | | | | | |
| <i>Lecania er*sibe</i> s. <i>str.</i> | | | • | | | | | | | | | | | | | | | | | | |
| <i>Lecania naegelii</i> | • | | | | | | | | | | | | | | | | | | | | |
| <i>Lecanora actophila</i> | | | • | | | • | | | | | | | | | | | | | | | |
| <i>Lecanora aitema</i> | | | | | | | | | | | | | | | | | | | | | • |
| <i>Lecanora albescens</i> | • | | • | | • | | | | | | | | | • | | | | | | | |
| <i>Lecanora campestris</i> subsp. <i>campestris</i> | | • | • | • | | • | | | | | | | | • | | | | | | | |
| <i>Lecanora carpinea</i> | | | • | | | | | | | | | | | | • | | | | | | |
| <i>Lecanora chlarotera</i> | • | • | • | | • | | • | • | • | | | | • | • | • | • | • | | | | • |
| <i>Lecanora conizaeoides</i> forma <i>conizaeoides</i> | | | • | • | | | | | | | | | | | | | | | | | |

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| <i>Lecanora crenulata</i> | | | • | • | • | | | | | | | | | | | | | | • |
| <i>Lecanora dispersa</i> | | • | • | | • | | | | | | | • | | | | • | | | |
| <i>Lecanora expallens</i> | • | | • | | • | | | | • | | | | | • | | | | | |
| <i>Lecanora gangaleoides</i> | | | • | | • | • | | | | | | | | | • | | | | • |
| <i>Lecanora hagenii</i> | | • | • | | | | | | | | | | | | | | | | |
| <i>Lecanora helicopsis</i> | | | | | | • | | | | | | • | | | | | | | |
| <i>Lecanora jamesii</i> | | | | | | | | | | | | | | • | | | | | |
| <i>Lecanora muralis</i> | | | • | • | • | | | | | | | | | | | | | | |
| <i>Lecanora orosthea</i> | | | • | | • | | | | | | | | | | • | • | | | |
| <i>Lecanora polytropa</i> | | | • | | • | | • | | • | | | | | • | • | • | | • | • |
| <i>Lecanora pulicaris</i> | | | | • | | | | | | | | | | | | | | | • |
| <i>Lecanora rupicola</i> var. <i>rupicola</i> | | | • | | • | | | | • | • | | | | | | | | | |
| <i>Lecanora saligna</i> | | | | | • | | | | | | | | | | | | | | |
| <i>Lecanora soralifera</i> | | | | | • | | • | • | • | • | | | | • | • | • | • | • | • |
| <i>Lecanora sulphurea</i> | | | • | | • | • | • | | | | | | | | • | • | | | |
| <i>Lecanora symmicta</i> | | | | • | | | | | | | | | | | | | | | • |
| <i>Lecidea commaculans</i> | | | | | | | | | | | | | | | | • | | | |
| <i>Lecidea fuliginosa</i> | | | | | | | | | • | | | | | | • | | | | |
| <i>Lecidea fuscoatra</i> s. str. | | | | | • | | • | | | | | | | | | | | | |
| <i>Lecidea grisella</i> | | | | | • | | | | • | | | | | • | • | • | | | • |
| <i>Lecidea lactea</i> s. str. | | | | | | | | | | | | • | | | • | • | | | |
| <i>Lecidea lithophila</i> | | | • | | • | | • | | | | | | | | • | • | | • | |
| <i>Lecidea plana</i> | | | | | | | | | | | | | | | • | | | | |
| <i>Lecidella asema</i> | | | • | | • | | | | | | | | | | | | | | |
| <i>Lecidella elaeochroma</i> forma <i>elaeochroma</i> | • | • | • | • | • | | • | • | • | • | | • | • | • | • | | | | • |
| <i>Lecidella elaeochroma</i> forma <i>soralifera</i> | • | | | | | | | | | | | | • | | | | | | |
| <i>Lecidella scabra</i> | | • | | | • | | | | • | | | • | • | • | • | | | | • |
| <i>Lecidella stigmatea</i> | • | | | | | | | | | | | | • | | | | | | |
| <i>Lepraria caesioalba</i> | | | | | • | | | | | | | | | | • | • | | • | |
| <i>Lepraria ecorticata</i> | | | | | • | | | | | | | | | | • | | | | • |
| <i>Lepraria incana</i> s. lat. | | | | • | | | • | | • | | | | | • | • | • | | | • |
| <i>Lepraria lobificans</i> | | | • | | | | • | | | | | | | • | | | | | |
| <i>Lepraria membranacea</i> | | | | | | | | | | | | | | | • | • | | | |
| <i>Lepraria neglecta</i> | | | | | | | | | • | | | | | | | | | | |

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| <i>Lepraria nivalis</i> | | | • | | | | | | | | | | | | | | | • | | | | |
| <i>Leptogium diffractum</i> | | | • | | | | | | | | | | | | | | | | | | | |
| <i>Leptogium gelatinosum</i> | | | • | • | | | | | | | | | | | | | | • | | | | |
| <i>Leptogium lichenoides</i> | | | | | | | • | | | | | | | | | | • | • | | | | |
| <i>Leptogium plicatile</i> | | | • | | • | | | | | | | | | | | | | | | | | |
| <i>Leptogium pulvinatum</i> | | | • | | | | | | | | | • | | | | | • | • | | | | |
| <i>Lichina confinis</i> | | | | | | • | | | | | | • | | | | | | | | | | |
| <i>Marchandiomyces aurantiacus</i> | | | | | • | | | | | | | | | | | | | | | | | |
| <i>Marchandiomyces corallinus</i> | | | | | | | | | | | | | | | | | | • | | | | |
| <i>Melanelixia fuliginosa</i> | | | • | | • | | • | | | • | | | | | • | • | • | • | | | | • |
| <i>Melanelixia glabrata</i> | • | • | | | | | • | • | • | | | | • | | • | • | • | • | | | | • |
| <i>Melanelixia subaurifera</i> | | • | • | | | | • | • | • | | | • | | • | | | • | • | | | | |
| <i>Melanohalea elegantula</i> | | | • | | • | | | • | | | | | | | • | | | | | | | |
| <i>Melanohalea exasperatula</i> | | | | | | | | • | | | | | | | | | | | | | | |
| <i>Micarea coppinsii</i> | | | | | | | | | | | | | | | | | | | | | | • |
| <i>Micarea leposula</i> | | | | | | | | | | • | | | | | | | • | • | • | | | |
| <i>Micarea lignaria</i> var. <i>lignaria</i> | | | | | | | • | | | • | | | | | | • | • | • | | | | • |
| <i>Micarea peliocarpa</i> | | | | | | | | | | | | | | | | | | | | | | • |
| <i>Micarea prasina</i> s. lat. | | | | | | | | | | | | | | | | | | | | | | • |
| <i>Miriquidica leucophaea</i> | | | | | • | | • | | | • | | | | | | | • | | | | | • |
| <i>Miriquidica pycnocarpa</i> forma <i>sorediata</i> | | | | | | | | | | | | | | | | | • | | | | | |
| <i>Mycoblastus caesius</i> | | | | | | | | | | | | | | | | | | | | | | • |
| <i>Mycoglaena myricae</i> | | | | | | | | | | | | | | | | | | | | | | • |
| <i>Myriospora smaragdula</i> | | | • | | • | | | | | | | | | | | | | • | | | | |
| <i>Normandina pulchella</i> | | | | | | | • | | | • | | • | | | • | | | | | | | • |
| <i>Ochrolechia androgyna</i> | | | | | • | | | | | | | | | | | | • | | • | | | |
| <i>Ochrolechia parella</i> | | | | | • | • | | | • | • | | | | | | | • | • | | • | | • |
| <i>Opegrapha atra</i> | • | • | • | • | • | | | | • | | | | • | | • | | | | | | | |
| <i>Opegrapha calcarea</i> | | | • | | | • | | | | | | | | | | | | | | | | |
| <i>Opegrapha dolomitica</i> | | | • | | | | | | | | | | | | | | | | | | | |
| <i>Opegrapha gyrocarpa</i> | | | | | • | | • | | | | | | | | | | • | • | • | | | • |
| <i>Opegrapha herbarum</i> | • | | | | | | | | | | | | | | | | | | | | | |
| <i>Opegrapha lithyrga</i> | | | | | | | | | | | | | | | | | • | | | | | |
| <i>Opegrapha rupestris</i> | | | • | | | | | | | | | | | | | | | | | | | |

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| <i>Opegrapha saxigena</i> | | | | | | | | | • | | | | | | | | | | | | | | |
| <i>Opegrapha varia</i> | • | • | • | | | • | | | | | | | | | | | • | | | | | | |
| <i>Opegrapha vulgata</i> | | • | | | | • | | | | | | | | | | | • | | | | | | |
| <i>Opegrapha xerica</i> | | | | | | | | | | | | | | | | | • | | | | | | |
| <i>Opegrapha zonata</i> | | | • | | | | | | | | | | | | | | | | • | • | • | | • |
| <i>Ophioparma ventosa</i> | | | | | | | | | | | | | | | | | | | • | | | | |
| <i>Parmelia omphalodes</i> | | | | | | | | | | | | | | | | | | | • | • | | • | |
| <i>Parmelia saxatilis</i> | | • | • | • | • | • | | • | • | • | • | • | | | • | • | • | • | • | • | • | • | • |
| <i>Parmelia sulcata</i> | • | • | • | • | • | • | | • | • | • | • | | | • | • | • | • | • | • | • | • | • | • |
| <i>Parmelina pastillifera</i> | | | | | | • | | | | | | | | | | | • | | | | | | |
| <i>Parmotrema crinitum</i> | | | | | | | | | | | | | | | | | | • | | | | | |
| <i>Parmotrema perlatum</i> | | | • | • | • | | | • | • | | | | | • | • | • | • | | | | | | |
| <i>Peltigera canina</i> | | | | | | | | • | | | | | | | • | • | | | • | | | | |
| <i>Peltigera hymenina</i> | | | | • | • | | | • | | • | | | | | • | • | | | • | | | | |
| <i>Peltigera membranacea</i> | | | | | | • | | • | | | | | | | • | • | | | • | | • | | |
| <i>Peltigera praetextata</i> | | | | | | | | • | | | | | | | | | | | • | • | | | |
| <i>Peltigera rufescens</i> | | | • | • | | | | | | | | | | | • | • | | | • | | • | | |
| <i>Pertusaria albescens</i> var. <i>albescens</i> | | | | | | | | | | | | | | | | | • | | • | | | | |
| <i>Pertusaria albescens</i> var. <i>corallina</i> | | | | | | | | | | • | | | | | | | | | • | | | | • |
| <i>Pertusaria amara</i> forma <i>amara</i> | | | | | | | | | | | • | | | | | | • | | | | | | |
| <i>Pertusaria aspergilla</i> | | | | | | • | | | | | • | | | | | | | | • | • | | | |
| <i>Pertusaria corallina</i> | | | | | | • | | • | | • | | | | | | | | | • | • | • | | • |
| <i>Pertusaria excludens</i> | | | | | | • | • | | | | | | | | | | | | | | | | • |
| <i>Pertusaria flavicans</i> | | | | | | | | | | | | | | | | | | | • | | | | |
| <i>Pertusaria hymenea</i> | | • | • | | | | | | | | | | | | | | • | | | | | | |
| <i>Pertusaria leioplaca</i> | | | | | | | | | | • | | | | | | | | | | | | | |
| <i>Pertusaria pertusa</i> | | • | • | | | | | | | | | | | | | | • | | | | | | |
| <i>Pertusaria pseudocorallina</i> | | | | | | | | | | | • | | | | | | | | • | | • | | • |
| <i>Phaeographis smithii</i> | • | | | | | | | | | | | | | | | | • | | | | | | |
| <i>Phaeophyscia orbicularis</i> | | | • | • | • | | | • | | | | | | • | | | • | | | | | | |
| <i>Phlyctis argena</i> | • | | | | | • | | | | | | | | | | | • | | | | | | |
| <i>Physcia adscendens</i> | • | • | • | • | • | • | | | | • | • | | | | • | | | | | | | | |
| <i>Physcia aipolia</i> | | | • | • | • | • | | | | • | • | | | | | • | | | • | | | | • |
| <i>Physcia caesia</i> | | | • | • | • | • | • | | | | | | | | • | | | | | | | | |

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|--|-----------------------|-------------------|--------------------------|------|-------------------|---------------------|-----------------|-------------|----------------------|--------|-----------------------|---------------------|---------------|------|----------------------|-----------------|----------------|------|---------------------|-----------|----------------------|------------------|------------|----------------|
| <i>Physcia dubia</i> | | | | • | | | | | | | | | | | | | | | | | | | | |
| <i>Physcia tenella</i> | • | • | • | • | • | | | • | | • | • | | | | • | • | • | • | • | • | | | | • |
| <i>Physcia tribacia</i> | | | | | | | | | | | | | | | | | | | • | | | | | |
| <i>Physconia grisea</i> | | | | | | | | | | | | | | | | | • | | | | | | | |
| <i>Pilophorus strumaticus</i> | | | | | | | | | | | | | | | | | | | • | | | | | |
| <i>Placidium squamulosum</i> | | | • | | | | | | | | | | | | • | | | | | | | | | |
| <i>Placopsis lambii</i> | | | | | | | • | | | | | | | | | | | | • | • | | | | |
| <i>Placopyrenium fuscellum</i> | | | • | • | | | | | | | | | | | • | | | | | | | | | |
| <i>Placynthiella icmalea</i> | | | | • | | | | | | | | | | | | | | | • | | | | | • |
| <i>Placynthium nigrum</i> | | | • | | | • | | | | | | | | | • | | | | | • | | | | • |
| <i>Platismatia glauca</i> | | | | | | | | • | • | • | | | | | | | | | • | | | | | • |
| <i>Polyblastia cruenta</i> | | | | | | | | | | | | | | | | | | | • | • | | | | |
| <i>Polyblastia dermatodes</i> | | | | | | • | | | | | | | | | | | | | | | | | | |
| <i>Polyblastia schaereriana</i> | | | | | | | | | | | | | | | | | | | | • | | | | |
| <i>Polysporina simplex</i> | | | | | | | • | | | | | | | | | | | | | | | | | |
| <i>Porina aenea</i> | • | | • | | | | | • | | | | | | | | | | | | | | | | |
| <i>Porina chlorotica</i> forma <i>chlorotica</i> | | | | | | • | | | • | | | | | | • | | • | | | | | | | |
| <i>Porina interjungens</i> | | | | | | | | • | | | | | | | | | | | | | | | | |
| <i>Porina lectissima</i> | | | | | | | | • | | | | | | | | | | | | | • | | | • |
| <i>Porina leptalea</i> | | | | | | | | • | | | | | | | | | | | | | | | | |
| <i>Porpidia cinereoatra</i> | | | | | | • | | • | • | • | | | | | | | | | • | • | • | | | • |
| <i>Porpidia crustulata</i> | | | | | | • | | | | | | | | | | | | | • | • | | | | |
| <i>Porpidia hydrophila</i> | | | | | | | | • | | | | | | | | | | | | • | | | | |
| <i>Porpidia macrocarpa</i> forma <i>macrocarpa</i> | | | | | | • | | • | | • | | | | | | | | | • | • | • | | | |
| <i>Porpidia melinodes</i> | | | | | | | | | | | | | | | | | | | | | • | | | |
| <i>Porpidia platycarpoides</i> | | | | | | • | | | | | | | | | | | | | | | | | | |
| <i>Porpidia rugosa</i> | | | | | | | | | | | | | | | | | | | • | • | | | | • |
| <i>Porpidia soledizodes</i> | | | • | | • | | | | | | | | | | | | | | • | • | | | | |
| <i>Porpidia tuberculosa</i> | | | • | | • | • | • | • | | • | | | | | | | • | • | • | • | • | | | • |
| <i>Protoblastenia calva</i> | | | • | • | | | | | | | | | | | • | | | | | | | | | |
| <i>Protoblastenia incrustans</i> | | | • | | | | | | | | | | | | • | | | | | | | | | |
| <i>Protoblastenia rupestris</i> | • | • | • | • | • | • | | | | • | • | | | | • | • | | | | • | | | | |
| <i>Protoparmelia badia</i> | | | | | | | | | | | | | | | | | | | | • | | | | |
| <i>Pseudevernia furfuracea</i> s. <i>lat.</i> | | | | | | | | | | | | | | | | | | | | • | | | | |

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| <i>Pseudevernia furfuracea</i> var. <i>ceratea</i> | | | | | | | | | | | | | | | | | • | | | | | • | |
| <i>Pseudevernia furfuracea</i> var. <i>furfuracea</i> | | | | | | | | | | | | | | | | | | | | | | | • |
| <i>Psilolechia lucida</i> | | | | | | | | | • | • | • | | | | | | • | | | | | | • |
| <i>Pterygiopsis concordatula</i> | | | | | | | | | | | | | | | | | | | | | | | • |
| <i>Punctelia jeckeri</i> | | • | • | | | | | | | • | • | | | | • | | | | | | | | |
| <i>Punctelia reddenda</i> | | | • | | | | | | | | | | | | | | | | | | | | |
| <i>Punctelia subrudecta</i> s. lat. | | | | | | | | | | • | | | | | | | | | | | | | |
| <i>Punctelia subrudecta</i> s. str. | | • | • | • | • | • | | • | | | | • | | • | • | • | • | | | | | | • |
| <i>Pyrrhospora quemea</i> | • | | | | | | | | | • | | | | | • | | | | | | | | |
| <i>Ramalina canariensis</i> | | | | | | | | | | | | | | • | | | | | | | | | |
| <i>Ramalina farinacea</i> | • | • | • | • | • | • | | • | • | • | • | • | • | • | | • | • | | | | | | • |
| <i>Ramalina fastigiata</i> | | • | • | • | • | • | | | • | • | • | • | • | • | • | • | • | | | | | | |
| <i>Ramalina fraxinea</i> | | | | | | | | | | | | | | • | | | | | | | | | |
| <i>Ramalina subfarinacea</i> | | | | | | • | • | | | | | | | | | | • | | | | | | |
| <i>Rhizocarpon geographicum</i> | | | | | | • | • | • | • | • | • | | | | | | • | • | • | • | • | • | • |
| <i>Rhizocarpon lavatum</i> | | | | | | | | • | | | | | | | | | • | • | | | | | • |
| <i>Rhizocarpon lecanorinum</i> | | | | | | | | | | | | | | | | | • | | | | | | |
| <i>Rhizocarpon oederi</i> | | | | | | | | | | | | | | | | | • | | • | | | | |
| <i>Rhizocarpon petraeum</i> | | | | | | | | | | | | • | | | | | | | | | | | |
| <i>Rhizocarpon polycarpum</i> | | | | | | | | | | | | | | | | | | • | | | | | |
| <i>Rhizocarpon reductum</i> | | | • | | • | | | • | • | • | • | • | | • | • | • | • | • | • | | | | |
| <i>Rhizocarpon richardii</i> | | | | | | | • | | | | | | | | | | | | | | | | |
| <i>Rinodina efflorescens</i> | | | | | | | | | | | | | | | | | • | | | | | | |
| <i>Rinodina oleae</i> | | • | • | | • | | | | | | | • | | | | | | | | | | | |
| <i>Rinodina sophodes</i> | | | | | | | | | | | | | | | | | • | | | | | | |
| <i>Romjularia lurida</i> | | | • | | • | | | | | | | | | | | | | • | | | | | |
| <i>Sarcogyne clavus</i> | | | | | | • | | | | | | | | | | | | | | | | | |
| <i>Sarcogyne regularis</i> | | | | | | | | | | | | • | | | | | | | | | | | |
| <i>Schaereria cinereorufa</i> | | | | | | | | | | | | | | | | | | • | | | | | |
| <i>Schismatomma decolorans</i> | | | | | | • | | | | | | | | | | | | | | | | | |
| <i>Sclerococcum sphaerale</i> | | | | | | | | | | | | | | | | | | | | | | | • |
| <i>Scolicosporum umbrinum</i> | | | | | | | | | | | | • | | | | | | | | | | | • |
| <i>Solenopsisora candicans</i> | | | • | | • | | | | | | | • | | | | | | • | | | | | |
| <i>Sphaerophorus fragilis</i> | | | | | | | | | | | | | | | | | • | | • | | | | |

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| <i>Verrucaria aethiobola</i> | | | | | | | | • | | | | | | | | | | | | | | | | | • |
| <i>Verrucaria baldensis</i> | • | | • | • | | | | | • | • | | | | | | | | | | | | | | | |
| <i>Verrucaria caerulea</i> | | | • | | | | | | | | | | | | | | | | | | | | | | |
| <i>Verrucaria calciseda</i> | • | | • | | | | | | | | | | | | | | | | | | | | | | |
| <i>Verrucaria cernaensis</i> | | | | | | | | | | | | | | | | | | | | | • | | | | |
| <i>Verrucaria dolosa</i> | | | • | | | | | | | | | | | | | | | | | | | | | | |
| <i>Verrucaria fusconigrescens</i> | | | • | | | | | | | | | | | | | | | | | | | | | | |
| <i>Verrucaria hochstetteri</i> | | • | • | | | | | | | | • | | | | | | | | | | | | | | |
| <i>Verrucaria hydrophila</i> | | | | | | | | • | | | | | | | | | | | | | • | | | | |
| <i>Verrucaria macrostoma</i> <i>forma macrostoma</i> | • | | • | | • | | | | | | | | | | | • | | | | | | | | | |
| <i>Verrucaria mucosa</i> | | | | | | | • | | | | | | | | | | | | | | | | | | |
| <i>Verrucaria murina</i> | | | • | | | | | | | | | | | | | | | | | | | | | | |
| <i>Verrucaria nigrescens</i> <i>forma nigrescens</i> | | • | • | • | • | • | • | • | • | • | | | | | | • | | | | • | | | | | |
| <i>Verrucaria pingucula</i> | | | • | | | | | | | | | | | | | | | | | | | | | | |
| <i>Verrucaria praetermissa</i> | | | | | | | | • | | | | | | | | | | | | | | | | | |
| <i>Verrucaria viridula</i> | • | • | • | | | | | | | | | | | | | • | | | | | | • | | | |
| <i>Violella fucata</i> | | | | | | | | | | | | | | | | | | | | • | | | | | • |
| <i>Xanthoparmelia conspersa</i> | | | | | | • | | • | | • | | | | | | | | | | | • | • | | | • |
| <i>Xanthoria aureola</i> | | | | | | | | | | | | | | | | • | | | | | | | | | |
| <i>Xanthoria calcicola</i> | | | • | | | | | | | | | | | | | | | | | | | | | | |
| <i>Xanthoria parietina</i> | • | • | • | • | • | • | • | | | • | • | | | | | • | | | • | • | • | • | | | • |
| <i>Xanthoria polycarpa</i> | • | | | | | | | | | | | | • | | | | | | • | | • | | | | • |
| <i>Xanthoria ucrainica</i> | | | | | | • | | | | | | | | | | | | | | | • | • | | | |

British Lichen Society Autumn Meeting 2014

Kent (based at Lenham): 16th-20th October, 2014



Participants : Juliet Bailey, Lesley Balfe, Ishpi Blatchley, Paul Cannon, Heather Colls, Brian Coppins, Ginnie Copsey, Brian Ferry, Bob Francis, Shirley Hancock, David Hill, Andrew Hodgekiss, Bob Hodgson, Keith Palmer, Ivan Pedley, Joyce Pitt, Steve Price, Ken Sandell, Paula Shipway, Janet Simkin, John Skinner, Sheila and Les Street, Holger Thues, Henk Timmerman, Catherine Tregaskes, Maaïke Vervoort, Pat Wolseley, Rebecca and Stephen Yahr.

Thursday 16th October

After one of the driest Septembers on record, the weather at the beginning of October quickly became unsettled. However by the middle of the month the weather was turning drier once more and indeed we were lucky enough to enjoy warm and often sunny conditions throughout the weekend. Participants, who numbered 30 in total (although not all of them were there all the time), began to assemble in the early afternoon at the Dog and Bear Hotel in the village of Lenham.

Ivan Pedley had as usual left his Leicestershire home at the crack of dawn and managed a survey of Doddington churchyard before reaching Lenham. At

Doddington he recorded *Llimonaea sorediata* on the north wall of the church – a first record for Kent and the first of several new vice-county records found over the weekend. As other participants began to gather at Lenham, the local churchyard just across the road from the hotel proved a draw for those anxious to get started on the lichens as soon as possible. Here attention was drawn to *Physcia clementei* on a ragstone memorial. This species occurs in several churchyards in this area of Kent, although never in great quantity, though easily enough overlooked here since the similarly-coloured *Diploicia canescens* surrounds it. Henk Timmerman commented that its appearance on stone was unexpected and that in Holland it is regarded as a corticolous species. Indeed it was very stimulating throughout the weekend having Henk and Maaïke Vervoort on hand to compare sightings with those in their home city of Amsterdam. One large memorial was found to harbour both *Collema auriforme* and *C. fuscovirens* and thus a clear comparison could be made between these two rather similar lichens. *Lecanora horiza* has in the past been taken to be *L. campestris* but again Henk was able to demonstrate that specimens with a thick thallus without a fimbriate margin often on the vertical faces of churchyard memorials are in fact *L. horiza*.



Physcia clementei in Lenham Churchyard

Henk and Maaïke also surveyed some trees on the lawn of Grovelands Retirement Home in the village, adding *Hypotrachyna revoluta*, *Jamesiella anastomosans*, *Melanohalea elegantula*, *Opegrapha niveoatra*, *Phlyctis argena* and *Porina aenea* to the already burgeoning list. They also identified *Placopyrenium fuscillum* and *Caloplaca flavocitrina* from The Square in the village.

Most of us then partook of a hearty meal at the Dog and Bear after which the meeting formally began with Keith Palmer introducing the weekend with some housekeeping arrangements and a brief overview of lichenological activity in the county during the past fifty or so years. Microscopes and other equipment were unpacked, ready to do battle in the following evenings with all those tiny specimens that were to be collected in the field.

Friday 17th October



Strange ritual outside the Cathedral of the Marsh.....

The first field visit of the meeting was to Ivychurch Churchyard, one of the Romney Marsh churches and referred to as the Cathedral of the Marsh. I was also under the impression that Lydd Church bore this title so a degree of rivalry between some of these remote edifices was indicated. St. George's is a fine, sturdy building and it was here on the north wall of the church in 1967 that Jack Laundon identified the lichen that is now known as *Lecanographa grumulosa*. This lichen with its large pruinose globose fruits was pointed out and duly admired at a number of sites on the North wall of the church. Here it had to compete with a number of other North wall "specials" such as *Arthonia pruinata* (also lignicolous on the door in the North wall), *Opegrapha areniseda*, *O. calcarea*, *O. gyrocarpa* and of course the ubiquitous *Dirina massiliensis* forma *sorediata*. Some of the last species was adorned with the lichenicolous fungus *Spiloma auratum*.

A candidate for another Kent record of *Llimonaea sorediata* was collected from the North wall and Holger Thues, who had joined us for the day, kindly took this



Lecanographa grumulosa on the north wall at Ivychurch

specimen, and Ivan's, back to the Natural History Museum for TLC analysis. Much to Ivan's delight, the Doddington specimen passed the *Llimonaea* test but sadly that at Ivychurch did not. Holger recorded *Verrucaria bulgarica* from a stone at the base of the North wall of the church – another first vice-county record.

Arthonia lapidicola was identified from a window-sill, on metal run-off, while *Aspicilia caesiocinerea* was on a sandstone memorial. A round-up of other interesting species from Ivychurch included *Caloplaca marmorata*, *Lecania hutchinsiae*, *L. rabenhorstii*, *Lecanora horiza*, *Leptogium turgidum*, *Pertusaria albescens* var. *corallina* (on sandstone), *Phaeophyscia nigricans*, *Polyblastia albida* and *Rinodina teichophila*.

The group then moved on to the Dungeness area where Brian Ferry (who has a long association with the lichens of this huge shingle expanse) was waiting to guide us to some of the more productive sites in this remarkable landscape. After giving us a most informative talk on the development of the shingle ridges, lichen recording started in earnest in the area known as the Kerton Triangle. We were soon crawling round on all fours exploring the huge range of different *Cladonia* species, fifteen in all here including *C. cervicornis* subsp. *verticillata*, *C. gracilis*, *C. humilis*, *C. portentosa*, *C. pyxidata*, *C. ramulosa*, *C. rangiformis* and *C. scabriuscula*. Other terricolous treats awaited us on the other side of the road after we had re-fuelled with our packed lunches: *Leptogium palmatum* being the star find (new to vice-county) and also including *L. gelatinosum*, *Peltigera canina*, *P. neckeri* and *P. rufescens*. The pebbles of the stabilized shingle harboured varied lichens, including *Aspicilia caesiocinerea*, *Lecanora polytropa* and *Rinodina aspersa* among others. Eventually we were able to stand and



Leptogium palmatum at Dungeness; image Ishpi Blatchley

study the lichens of the willows and aspen which included *Anisomeridium biforme*, *Cyrtidula hippocastani* (new vice-county record), *Physcia aipolia*, *P. stellaris*, *Usnea cornuta*, *U. flammea* and *U. subfloridana*.

Brian had negotiated a visit to MOD land on Lydd Ranges which is also part of the Dungeness peninsula. Here the landscape was different again and included a veritable forest of holly on a huge shingle expanse. However it was the stunted blackthorn that we had really come to examine here. There was certainly a rich community on these remnant, largely prostrate, bushes including *Lecanora carpinea*, *L. confusa*, *L. symmicta*, *Melanelixia subaurifera*, *Parmotrema perlatum*, *Pertusaria amara*, *P. pertusa*, *Physcia aipolia*, *Platismatia glauca*, *Pseudevernia furfuracea* and *Ramalina fastigiata*. Brian was especially pleased to re-

find a superb specimen of the distinctively red *Usnea rubicunda*. Pebbles yielded *Evernia prunastri*, *Flavoparmelia caperata* and *Melanelixia fuliginosa*.

Owing to a bit of a mix-up over entry to the MOD site, Steve Price, Paul Cannon and Rebecca and Stephen Yahr returned to the public areas of Dungeness to examine the boardwalk to the seashore. They found a rich variety of lignicolous species including *Bryoria fuscescens* (not seen in Kent since 1985), *Cladonia polydactyla*, *Cyphelium notarisii* (an uncommon lichen in Kent favouring coastal sites), *Lecanora conizaeoides*, *Parmeliopsis ambigua* and *Usnea esperantiana* (new vice-county record).



Usnea rubicunda at the Lydd Ranges; image Ishpi Blatchley

The dwindling daylight of an afternoon in mid-October finally meant that we had reluctantly to leave this productive site but a further delight was in store after the evening meal for Henk had brought with him a most informative presentation on the lichens of Amsterdam. Illustrated by some fine slides, Henk showed that by the mid twentieth-century the centre of Amsterdam had become a lichen desert due to industrialization (echoing of course the situation in Britain) but by the end of the twentieth and into the twenty-first century there had been a significant return of



Shingle banks at Lydd ranges; lichenologists in the background. Photo Ishpi Blatchley



Usnea esperantiana growing on the boardwalk by the Dungeness lighthouse

lichens into the urban areas following a reduction in sulphur dioxide pollution of 97%. Now the main pollutants were ammonia and nitrous oxides but these suited many of the returning species. He showed that when comparing the returning lichens of Amsterdam with species returning to the urban landscape in the UK there were notable similarities but also surprising differences. For example we recognize the scenario where species such as *Candelaria concolor* is returning to our urban and suburban trees at a considerable rate; however *Physcia tribacioides* and *P. clementei* are common features on Amsterdam trees while such species do not currently figure amongst our town lichens – indeed *P. tribacioides* is regarded as a none too common bird-perch specialist in the UK while *Flavopunctelia flaventior* is not even a British lichen. Possible theories put forward by Henk for the discrepancies are a lack of elm trees due to, paradoxically, Dutch Elm Disease and, probably more significantly, the considerable difference between annual rainfall totals in Amsterdam as compared to those of London. Indeed it is perhaps something of a surprise to note that Amsterdam is a much wetter city than London and has rainfall totals more on a par with western parts of Britain than its capital. This comparative lack of rainfall in London may have considerable significance in determining which lichens will or will not develop there.

Saturday 18th October

Our field visit today took us to the far western side of the county, to the estate at Hever Castle, known as the place from which Henry VIII reputedly courted his second wife, Anne Boleyn, whose childhood home it was. The grounds are very



Imshaugia aleurites on wooden fence rail, Hever Castle

extensive providing multiple habitats for lichenologists to examine, parkland trees, exotics, stonework, monuments and chestnut fencing. The party, which was swelled



Cyphelium inquinans growing on an old fence post, Hever Castle

with a number of day visitors, tended to split during the day, meaning that different areas and sites within the complex could be relatively well studied. Mark Powell had last year been most impressed with the range of species he had located on the fencing and many of these were re-found as a result of today's surveying. Fertile material of *Protoparmelia oleagina* was one such lichen as was *Strangospora moriformis*. Three *Micarea* species were determined: *M. denigrata*, *M. lignaria* and *M. nitschkiana* and Brian Coppins found the second British record of *Pycnora praestabilis* (new to England). *Lecanora conizaeoides* produced momentary excitement, an indication of its rapid decline from its pre-eminent position of thirty years ago! There were some fine – and quite large specimens of *Imshaugia aleurites*. This species was new to some although those who work the south-east regularly would be more familiar with this

Parmelia-like lichen although it looks as if it is disappearing from fence palings over much of Romney Marsh – the remoteness of this fencing from agricultural pollution may have something to do with its healthy state here. *Buellia griseovirens*, *Chaenotheca ferruginea*, *Fuscidea lightfootii*, *Hypogymnia tubulosa*, *Parmeliopsis ambigua*, *Platismatia glauca*, *Pseudevernia furfuracea* and *Punctelia borreri* were some other lichens recorded from the chestnut post and rail fencing. A wooden footbridge added *Cyphelium inquinans*, *Diploschistes muscorum*, *Hypocomyce scalaris* and *Ochrolechia microstictoides*.

On the trees *Arthonia pruinata*, *Buellia schaeferi* (new vice-county record) and *Lecanactis abietina* were recorded from oak and *Ochrolechia subviridis* from ash. A Liquidambar or sweet gum tree (*Liquidambar styraciflua*) was also productive bearing *Melanohalea laciniatula*, *Phlyctis argenta* and *Usnea cornuta* among other lichens.

Elsewhere the saxophiles were enjoying the piazza and recording a most interesting range of species including *Lecidella carpathica*, *Micarea denigrata*, *Pertusaria lactescens*, *Trapelia obtogens*, *T. placodioides* and *Xanthoparmelia mougeotii*. Even *Caloplaca variabilis*, a most infrequent species in the south-east, was noted on some mortar. On some copper run-off *Psilolechia leprosa* was predictably discovered.

While the lichenicolous fungi *Marchandiomyces corallinus* on *Parmeliaceae* and *Illosporopsis christiansenii* on *Physciaceae* were frequent during the meeting, one interesting species at Hever was *Clypeococcus hypocomycis* on *Hypocomyce scalaris* (new vice-county record).

The adjacent Hever Churchyard did not receive a full survey but *Caloplaca crenularia* and *C. flavovirescens* were recorded and, after some searching, a plentiful

supply of *Diploschistes actinostomus* was located on the boundary wall opposite the Castle. This is only the second known site for this lichen in Britain, the other also being in Kent, at Brookland Church on Romney Marsh.



Diploschistes actinostomus, on the boundary wall of Hever churchyard

Such were the excitements of the Castle grounds that not everyone pushed on after lunch to Chiddingstone Churchyard, a short distance away. Those that did however were rewarded with some more excellent lichenising. Chiddingstone Village is under the ownership of the National Trust though not in fact the church which is of sandstone, mostly rebuilt in the 17th century after a fire. Most of the interest in the main yard came from the acidic stone on the site: *Acarospora nitrophila*, *Cladonia glauca* (on a sandstone headstone), *Micarea lignaria*, *Opegrapha gyrocarpa* (fertile on the shaded base of a chest tomb), *Pertusaria lactescens*, *Porpidia cinereoatra* at the base of a high sandstone chest and *Trapelia globulosa*. The extension churchyard also possesses an old sandstone boundary wall with large thalli indicating long undisturbed lichen growth. Again there was *Pertusaria lactescens*. *Acarospora umbilicata* was new to Kent from this wall which also provided great quantities of *Diploschistes scruposus*.

Sunday 19th October

Today we visited the site of a former colliery at Stodmarsh. When we think of coal-mining in Britain it is normally associated with the Black Country in the Midlands and the North of England, in South Wales and Tyneside; however what is perhaps not widely known is that at one time there was considerable coal mining activity in East Kent beyond Canterbury, coal having been discovered in the county in the late

1800s when borings were made for the later abandoned Channel Tunnel. Peak productivity was prior to World War II with only four collieries surviving beyond the war. Now all are closed and we visited the spoil heap created by the Chislet colliery. Stodmarsh is well-known as the site of an important national nature reserve but we had been permitted to visit an area not open to the general public.

There were some avian distractions in the form of Bearded Tits calling from the reedbeds and a Hobby hawking over the area for dragonflies but there were plenty of terricolous lichens to delight us too and so it was very much a hands and knees morning as we explored the *Cladonia* heath that had developed on the coal spoil. Fifteen species of *Cladonia* were recorded and much time and energy were expended by those in the know in explaining to the less experienced among us subtle differences between the species of this often quite difficult genus. Highlights were *Cladonia arbuscula*, *C. diversa*, *C. glauca*, *C. ramulosa*, *C. portentosa* and *C. scabriuscula*. Plenty of other lichens were located in the process of searching for different *Cladonias*. *Trapelia glebulosa* was found in fertile condition, for example. *Diploschistes muscorum*, parasitic on *Cladonia*, was of course enjoying the landscape as well. Alternative interest was provided by the trees and scrub that had also grown up on the spoil heap. While waiting for everyone to arrive at the restricted site from the nature reserve car park trees, hedgerows and a wooden gate were examined, yielding *Opegrapha varia*, *O. niveoatra* and *Hyperphyscia adglutinata* on trees and *Caloplaca holocarpa*, *Lecanora polytropa* and *Rinodina oleae* on the gate.



Hornbeam pollard, Bockhanger Wood. Photo Ishpi Blatchley

In the afternoon we visited a superb area of woodland called Bockhanger Wood, on the Mersham Hatch Park Estate, off the A20 east of Ashford. The main interest was to be found on ancient pollarded hornbeams which have been, most unusually, in a continuous pollarding cycle for decades. Oak, ash, hazel and, particularly, poplar produced further species. While *Enterographa crassa* was not unexpectedly abundant, it was the presence in quantity of *E. hutchinsiae* and particularly *E. elaborata* which created much excitement. *E. elaborata* is a Schedule 8 species for which the UK has International Responsibility. Previously recorded from ash in Fermanagh and beech in the New Forest its presence at Bockhanger was a wonderful find. When Natural England was alerted to its presence the winter management plan for the wood had to be reviewed and a detailed survey has since been commissioned. Hornbeams also produced *Arthonia cinnabarina*, *Opegrapha corticola*, *Schismatomma cretaceum* and *Thelotrema lepadinum* among others. On oak in addition to plentiful *Cresponea premnea* were *Chaenotheca hispidula* and *C. trichialis*. *Phaeographis dendritica* featured on ash while the prolific flora on poplar included *Arthonia didyma*, *Graphina anguina*, *Lecanora barkmaniana* and *Normandina pulchella* plus a wide range of *Opegrapha* species. Finally the origin of *Parmotrema reticulatum* was not easy to judge as it was found fallen on the ground.

Eventually some of the group made their way through the wood into the parkland of Mersham Deer Park. Here *Hyperphyscia adglutinata* was found on elder, *Chaenotheca trichialis* and *Schismatomma decolorans* on oak, and, on lime, several thalli of *Physcia tribacia*.

Monday 20th October

After the excitement of the previous afternoon, the lichen meeting ended in gentler fashion, re-familiarising ourselves with commoner species in the traditionally managed cherry orchard at New House Farm near Sheldwich south of Faversham to which we had been given special access.

Most of the records came from long-established *Prunus* in this large orchard. There was a full range of *Parmeliaceae* including three *Punctelia* species - *P. borrieri*, *P. jeckeri* and *P. subrudecta* while *Hypotrachyna afrorevoluta* and *H. revoluta* were growing almost side by side allowing comparison to be made between these two similar species. *Evernia prunastri* was plentiful too but largely in poor condition suggesting changes in the air quality at the site. *Physcia aipolia* was in evidence, a rapidly returning species to south-east England having been largely absent at the peak of sulphur dioxide pollution. Other lichens worthy of mention from the *Prunus* were (and including species prominent in nutrient-rich situations) *Arthopyrenia punctiformis*, *Candelariella reflexa*, *Dimerella pineti*, *Fuscidea lightfootii*, *Jamesiella anastomosans*, *Ochrolechia subviridis*, *Placynthiella dasaea*, *Pseudevernia furfuracea*, *Ramalina fastigiata* and *Usnea cornuta*.

Some attention was paid to the wooden gate at the entrance to the orchard (*Buellia badia*, *Lecanora saligna*, *L. stenotropa* and *Xanthoria polycarpa*) and the nearby asbestos-cement sheeting of the barn (*Caloplaca oasis*, *C. holocarpa*, *C. saxicola*, *Xanthoria calcicola* and *X. candelaria* s. lat.).



New House Farm cherry orchard. Photo Ishpi Blatchley

At lunchtime the party began to make their individual ways home at the conclusion of a happy and fruitful meeting, aided by good weather and excellent company.

We would like to extend our thanks to all participants for providing so many good records and to Mark Powell for his help in suggesting suitable sites for the meeting. Unfortunately he was not able to join us in October. Paul Tyers is thanked for sharing his fascinating pottery finds with us!

Keith Palmer and Ishpi Blatchley

Master list for sites - BLS meeting in Kent

(+ New vice county record)

| Lichen name | Bockhanger | Dungeness | Lydd MOD | Stodmarsh | Hever | New House Orchard | Lenham Village |
|---|------------|-----------|----------|-----------|-------|-------------------|----------------|
| <i>Acarospora fuscata</i> | | | | • | • | | |
| <i>Amandinea punctata</i> | • | • | | | • | • | |
| <i>Anisomeridium biforme</i> | | • | | | | | |
| <i>Anisomeridium polypori</i> | • | | | | • | | |
| <i>Arthonia cinnabarina</i> + | • | | | | | | |
| <i>Arthonia didyma</i> | • | • | | | | | |
| <i>Arthonia pruinata</i> | • | | | | • | | |
| <i>Arthonia radiata</i> | • | • | | • | • | • | |
| <i>Arthonia spadicea</i> | • | • | | | | | |
| <i>Arthopyrenia punctiformis</i> | | | | | | • | |
| <i>Aspicilia caesiocinerea</i> | | • | • | | | | |
| <i>Aspicilia calcarea</i> | | | | | • | | |
| <i>Aspicilia contorta</i> subsp. <i>hoffmanniana</i> | | | | | • | | |
| <i>Bryoria fuscescens</i> | | • | | | | | |
| <i>Buellia aethalea</i> | | • | • | • | | | |
| <i>Buellia badia</i> + | | | | | | • | |
| <i>Buellia griseovirens</i> | | | | | • | | |
| <i>Buellia ocellata</i> | | • | • | • | | | |
| <i>Buellia schaeereri</i> + | | | | | • | | |
| <i>Caloplaca arcis</i> | | • | | | | | |
| <i>Caloplaca dichroa</i> | | | | | • | | |
| <i>Caloplaca flavescens</i> | | | | | | | • |
| <i>Caloplaca flavocitrina</i> | | | | | | | • |
| <i>Caloplaca holocarpa</i> s. str. | | • | | • | | • | |
| <i>Caloplaca oasis</i> | | | | | | • | |
| <i>Caloplaca obscurella</i> | | | | | • | | |
| <i>Caloplaca saxicola</i> | | | • | | | • | |
| <i>Caloplaca variabilis</i> | | | | | • | | |
| <i>Candelariella aurella</i> forma <i>aurella</i> | | • | | • | • | • | |
| <i>Candelariella reflexa</i> | • | • | | | • | • | |
| <i>Candelariella vitellina</i> forma <i>vitellina</i> | | • | | • | • | • | |
| <i>Catillaria chalybeia</i> var. <i>chalybeia</i> | | • | | • | • | | |
| <i>Catillaria nigroclavata</i> | • | | | | | | |

| Lichen name | Bockhanger | Dungeness | Lydd MOD | Stodmarsh | Hever | New House Orchard | Lenham Village |
|--|------------|-----------|----------|-----------|-------|-------------------|----------------|
| <i>Cetraria aculeata</i> | | • | • | | | | |
| <i>Chaenotheca ferruginea</i> | • | | | | • | | |
| <i>Chaenotheca hispidula</i> + | • | | | | | | |
| <i>Chaenotheca trichialis</i> | • | | | | | | |
| <i>Chrysothrix candelaris</i> | • | | | | | | |
| <i>Cladonia arbuscula</i> subsp. <i>squarrosa</i> | | | | • | | | |
| <i>Cladonia cervicornis</i> subsp. <i>cervicornis</i> | | • | • | • | | | |
| <i>Cladonia cervicornis</i> subsp. <i>verticillata</i> | | • | • | • | | | |
| <i>Cladonia chlorophaea</i> s. <i>lat.</i> | | • | • | • | • | • | |
| <i>Cladonia ciliata</i> var. <i>ciliata</i> | | • | | • | | | |
| <i>Cladonia ciliata</i> var. <i>tenuis</i> | | • | • | | | | |
| <i>Cladonia coniocraea</i> | • | | • | • | • | • | |
| <i>Cladonia diversa</i> | | | | • | | | |
| <i>Cladonia fimbriata</i> | | • | | • | | • | |
| <i>Cladonia foliacea</i> | | • | • | • | | | |
| <i>Cladonia furcata</i> subsp. <i>furcata</i> | | • | • | • | | | |
| <i>Cladonia glauca</i> | | | | • | | | |
| <i>Cladonia gracilis</i> | | • | • | | | | |
| <i>Cladonia humilis</i> | | • | | | | | |
| <i>Cladonia macilentata</i> | | | | | • | | |
| <i>Cladonia ochrochlora</i> | | | | | • | | |
| <i>Cladonia polydactyla</i> var. <i>polydactyla</i> | | • | | | | | |
| <i>Cladonia portentosa</i> | | • | | • | | | |
| <i>Cladonia pyxidata</i> | | • | | | | | |
| <i>Cladonia ramulosa</i> | | • | • | • | | | |
| <i>Cladonia rangiformis</i> | | • | • | • | | | |
| <i>Cladonia scabriuscula</i> + | | • | | • | | | |
| <i>Cladonia subulata</i> | | | • | | | | |
| <i>Cliostomum griffithii</i> | • | • | | | • | | |
| <i>Clypeococcum hypocenomyces</i> + | | | | | • | | |
| <i>Cresponea premea</i> | • | | | | | | |
| <i>Cyphelium inquinans</i> | | | | | • | | |
| <i>Cyphelium notarisii</i> | | • | | | | | |
| <i>Cyrtidula hippocastani</i> + | | • | | | | | |
| <i>Dimerella pineti</i> | | | | | | • | |
| <i>Diploicia canescens</i> | • | | | • | | • | |

| Lichen name | Bockhanger | Dungeness | Lydd MOD | Stodmarsh | Hever | New House Orchard | Lenham Village |
|--|------------|-----------|----------|-----------|-------|-------------------|----------------|
| <i>Diploschistes muscorum</i> | | | | • | • | | |
| <i>Enterographa crassa</i> | • | | | | | | |
| <i>Enterographa elaborata</i> + | • | | | | | | |
| <i>Enterographa hutchinsiae</i> + | • | | | | | | |
| <i>Evernia prunastri</i> | • | • | • | • | • | • | • |
| <i>Flavoparmelia caperata</i> | • | • | • | | • | • | |
| <i>Flavoparmelia soledians</i> | | | | | • | • | |
| <i>Fuscidea lightfootii</i> | • | • | | | • | • | |
| <i>Graphina anguina</i> | • | | | | | | |
| <i>Graphis elegans</i> | • | | | | | | |
| <i>Graphis scripta</i> | • | | | | | | |
| <i>Hyperphyscia adglutinata</i> | • | | | • | • | • | |
| <i>Hypocenomyce scalaris</i> | | | | | • | • | |
| <i>Hypogymnia physodes</i> | | • | • | | • | • | |
| <i>Hypogymnia tubulosa</i> | | | | | • | • | |
| <i>Hypotrachyna afrorevoluta</i> | • | | | | | • | |
| <i>Hypotrachyna revoluta s. str.</i> | • | | • | | | • | • |
| <i>Illosporopsis christiansenii</i> | | | | • | | • | |
| <i>Imshaugia aleurites</i> | | | | | • | | |
| <i>Jamesiella anastomosans</i> | | | | | • | • | • |
| <i>Laeviomycetes opegraphae</i> + | • | | | | | | |
| <i>Lecanactis abietina</i> | • | | | | • | | |
| <i>Lecania cyrtella</i> | • | • | | | • | • | |
| <i>Lecania cyrtellina</i> + | • | | | | | | |
| <i>Lecania erysibe s. str.</i> | | | | | • | | |
| <i>Lecania naegelii</i> | | • | | | • | | |
| <i>Lecanora albescens</i> | • | | | • | | • | • |
| <i>Lecanora barkmaniana</i> | • | | | | | | |
| <i>Lecanora carpinea</i> | • | • | • | | • | • | |
| <i>Lecanora chlarotera</i> | • | • | | • | • | • | • |
| <i>Lecanora compallens</i> | • | • | | • | • | | |
| <i>Lecanora confusa</i> | | • | • | • | • | • | |
| <i>Lecanora conizaeoides</i> forma <i>conizaeoides</i> | | • | | | • | | |
| <i>Lecanora dispersa</i> | • | | | | • | • | |
| <i>Lecanora expallens</i> | • | • | • | • | • | • | |
| <i>Lecanora hagenii</i> | | • | | • | • | • | |

| | Bockhanger | Dungeness | Lydd MOD | Stodmarsh | Hever | New House Orchard | Lenham Village |
|--|------------|-----------|----------|-----------|-------|-------------------|----------------|
| Lichen name | | | | | | | |
| <i>Lecanora muralis</i> | | | | • | • | | |
| <i>Lecanora orosthea</i> | | | | | • | | |
| <i>Lecanora persimilis</i> | | | | • | • | | |
| <i>Lecanora polytropa</i> | | • | | • | | | |
| <i>Lecanora pulicaris</i> | | • | | | • | | |
| <i>Lecanora saligna</i> | | | | | • | • | |
| <i>Lecanora stenotropia</i> | | | | | | • | |
| <i>Lecanora symmicta</i> | | • | • | • | • | • | |
| <i>Lecanora varia</i> | | • | | | | | |
| <i>Lecidea fuscoatra s. str.</i> | | | | | • | | |
| <i>Lecidea grisella</i> | | | | | • | | |
| <i>Lecidella carpathica</i> | | | | | • | | |
| <i>Lecidella elaeochroma forma elaeochroma</i> | • | • | • | • | • | • | |
| <i>Lecidella scabra</i> | | | | • | • | | |
| <i>Lecidella stigmatea</i> | | | | • | • | | |
| <i>Lepraria incana s. lat.</i> | | | | | • | | |
| <i>Lepraria incana s. str.</i> | • | | | • | • | • | • |
| <i>Lepraria lobificans</i> | • | | | | | • | |
| <i>Leptogium gelatinosum</i> | | • | | | | | |
| <i>Leptogium palmatum</i> + | | • | | | | | |
| <i>Lichenocnium erodens</i> | | • | • | | | | |
| <i>Marchandiomyces corallinus</i> + | | | | | • | • | |
| <i>Melanelixia fuliginosa</i> | | | • | • | • | | |
| <i>Melanelixia glabrata</i> | • | • | | • | • | • | • |
| <i>Melanelixia subaurifera</i> | • | • | • | • | • | • | • |
| <i>Melanohalea elegantula</i> | | | | | • | • | • |
| <i>Melanohalea laciniatula</i> | • | | | | • | | |
| <i>Micarea denigrata</i> | | | | | • | | |
| <i>Micarea erratica</i> | | | | | • | | |
| <i>Micarea lignaria var. lignaria</i> | | | | | • | | |
| <i>Micarea nitschkeana</i> + | | | | | • | | |
| <i>Milospium graphideorum</i> + | • | | | | | | |
| <i>Normandina pulchella</i> | • | | | | | | |
| <i>Ochrolechia androgyna</i> | | | | | • | | |
| <i>Ochrolechia microstictoides</i> + | | | | | • | | |
| <i>Ochrolechia parella</i> | | | | | • | | |

| Lichen name | Bockhanger | Dungeness | Lydd MOD | Stodmarsh | Hever | New House Orchard | Lenham Village |
|---|------------|-----------|----------|-----------|-------|-------------------|----------------|
| <i>Ochrolechia subviridis</i> | | | | | • | • | |
| <i>Opegrapha</i> (undescribed sp on <i>P. pertusa</i>) + | • | | | | | | |
| <i>Opegrapha atra</i> | • | | | • | • | | • |
| <i>Opegrapha corticola</i> | • | | | | | | |
| <i>Opegrapha herbarum</i> | • | | | | | | |
| <i>Opegrapha niveoatra</i> | | | | • | | | • |
| <i>Opegrapha ochrocheila</i> | • | | | | | | |
| <i>Opegrapha prosodea</i> | • | | | | | | |
| <i>Opegrapha rufescens</i> + | • | | | | • | | |
| <i>Opegrapha varia</i> | | | | • | • | | |
| <i>Opegrapha vermicellifera</i> | • | | | • | | | |
| <i>Opegrapha vulgata</i> | • | | | | | | |
| <i>Parmelia saxatilis</i> | | • | | | • | • | |
| <i>Parmelia sulcata</i> | | • | • | • | • | • | • |
| <i>Parmeliopsis ambigua</i> | | • | | | • | | |
| <i>Parmotrema perlatum</i> | • | • | • | | • | • | |
| <i>Parmotrema reticulatum</i> | • | | | | | | |
| <i>Peltigera canina</i> | | • | • | | | | |
| <i>Peltigera didactyla</i> | | • | • | | | | |
| <i>Peltigera hymenina</i> | | • | • | | | | |
| <i>Peltigera membranacea</i> | | | • | | | | |
| <i>Peltigera neckeri</i> | | • | • | | | | |
| <i>Peltigera rufescens</i> | | • | • | | | | |
| <i>Pertusaria albescens</i> var. <i>albescens</i> | • | | | | • | | |
| <i>Pertusaria amara</i> forma <i>amara</i> | • | | • | | • | • | |
| <i>Pertusaria hymenea</i> | • | | | | | | |
| <i>Pertusaria lactescens</i> + | | | | | • | | |
| <i>Pertusaria leioplaca</i> | • | | | | | | |
| <i>Pertusaria multipuncta</i> | | | | | • | | |
| <i>Pertusaria pertusa</i> | • | | • | | • | | |
| <i>Phaeographis dendritica</i> | • | | | | | | |
| <i>Phaeophyscia orbicularis</i> | • | | | | • | | |
| <i>Phlyctis argena</i> | • | | | | • | | • |
| <i>Physcia adscendens</i> | • | • | | • | • | • | • |
| <i>Physcia aipolia</i> | | • | • | | | • | |
| <i>Physcia caesia</i> | | | | • | | | |

| Lichen name | Bockhanger | Dungeness | Lydd MOD | Stodmarsh | Hever | New House Orchard | Lenham Village |
|---|------------|-----------|----------|-----------|-------|-------------------|----------------|
| <i>Physcia stellaris</i> | | • | | | | | |
| <i>Physcia tenella</i> | • | • | • | • | • | • | • |
| <i>Physcia tribacia</i> | • | | | | | | |
| <i>Physconia grisea</i> | | | | • | | • | |
| <i>Placopyrenium fuscillum</i> | | | | | | | • |
| <i>Placynthiella dasaea</i> + | | | | | | • | |
| <i>Placynthiella icmalea</i> | | | | | • | | |
| <i>Placynthiella uliginosa</i> | | • | • | | | | |
| <i>Platismatia glauca</i> | | | • | | • | | |
| <i>Polysporina simplex</i> | | | | • | | | |
| <i>Porina aenea</i> | | | | | • | | • |
| <i>Porina borrieri</i> + | • | | | | | | |
| <i>Porpidia crustulata</i> | | | | • | | | |
| <i>Porpidia soledizodes</i> | | | | • | | | |
| <i>Porpidia tuberculosa</i> | | • | • | • | • | | |
| <i>Protoblastenia rupestris</i> | | | | | | | • |
| <i>Protoparmelia oleagina</i> | | | | | • | | |
| <i>Pseudevernia furfuracea</i> s. lat. | | | | | • | | |
| <i>Pseudevernia furfuracea</i> var. <i>furfuracea</i> | | | • | | • | • | |
| <i>Psilolechia leprosa</i> | | | | | • | | |
| <i>Psilolechia lucida</i> | | | | | | | • |
| <i>Psoroglaena stigonemoides</i> | • | | | | | | |
| <i>Punctelia borrieri</i> | | | | | • | • | |
| <i>Punctelia jeckeri</i> | • | • | | • | • | • | • |
| <i>Punctelia subrudecta</i> s. str. | • | • | | | • | • | • |
| <i>Pycnora praestabilis</i> + | | | | | • | | |
| <i>Pyrenula chlorospila</i> | • | | | | | | |
| <i>Pyrrhospora querneae</i> | • | | • | | • | | |
| <i>Ramalina farinacea</i> | • | • | • | • | • | • | • |
| <i>Ramalina fastigiata</i> | • | | • | • | • | • | |
| <i>Rhizocarpon reductum</i> | | • | • | • | • | | |
| <i>Rinodina aspersa</i> | | • | • | | | | |
| <i>Rinodina oleae</i> | • | | | • | | | |
| <i>Sarcogyne regularis</i> | | • | | | • | | |
| <i>Schismatomma cretaceum</i> | • | | | | | | |
| <i>Schismatomma decolorans</i> | • | | | | • | | |

| Lichen name | Bockhanger | Dungeness | Lydd MOD | Stodmarsh | Hever | New House Orchard | Lenham Village |
|--|------------|-----------|----------|-----------|-------|-------------------|----------------|
| <i>Scoliosporum chlorococcum</i> | | • | • | | | | |
| <i>Strangospora moriformis</i> | | | | | • | | |
| <i>Strigula taylorii</i> | | | | • | | | |
| <i>Tephromela atra</i> var. <i>atra</i> | | | | • | • | | |
| <i>Thelotrema lepadinum</i> | • | | | | | | |
| <i>Trapelia coarctata</i> | | | | • | • | | |
| <i>Trapelia glebulosa</i> | | | | • | | | |
| <i>Trapelia obtegens</i> | | | | • | • | | |
| <i>Trapelia placodioides</i> | | | | | • | | |
| <i>Trapeliopsis flexuosa</i> | | | | | • | | |
| <i>Trapeliopsis granulosa</i> | | | | • | • | | |
| <i>Usnea cornuta</i> | | • | • | | • | • | |
| <i>Usnea esperantiana</i> + | | • | | | | | |
| <i>Usnea flammea</i> + | | • | • | | | | |
| <i>Usnea rubicunda</i> | | | • | | | | |
| <i>Usnea subfloridana</i> | | • | • | | | • | |
| <i>Verrucaria macrostoma</i> forma <i>macrostoma</i> | | | | | • | | |
| <i>Verrucaria muralis</i> | | | | | | | • |
| <i>Verrucaria nigrescens</i> forma <i>nigrescens</i> | | • | | | | | • |
| <i>Verrucaria viridula</i> | | | | | • | | |
| <i>Violella fucata</i> | | | | | • | | |
| <i>Xanthoparmelia mougeotii</i> | | | • | • | • | | |
| <i>Xanthoria calcicola</i> | | | | • | • | • | |
| <i>Xanthoria candelaria</i> s. <i>lat.</i> | | • | | | | • | |
| <i>Xanthoria parietina</i> | • | • | • | • | • | • | |
| <i>Xanthoria polycarpa</i> | | • | • | • | • | • | |
| <i>Xanthoria ucrainica</i> | | | | | • | | |

List of lichens found in churchyards - BLS Field Meeting in Kent

(+ New vice country record)

| Lichen | Chiddingstone | Doddington | Hever | Ivychurch | Lenham |
|--------------------------------|---------------|------------|-------|-----------|--------|
| <i>Acarospora fuscata</i> | • | • | • | | |
| <i>Acarospora nitrophila</i> + | • | | | | |
| <i>Acarospora umbilicata</i> + | • | | | | |

| Lichen | Chiddingstone | Doddington | Hever | Ivychurch | Lenham |
|---|---------------|------------|-------|-----------|--------|
| <i>Acrocordia salweyi</i> | • | | | • | |
| <i>Agonimia tristicula</i> | • | | | • | |
| <i>Arthonia lapidicola</i> | | | | • | |
| <i>Arthonia pruinata</i> | | | | • | |
| <i>Arthonia radiata</i> | | | | • | |
| <i>Aspicilia caesiocinerea</i> | | | | • | |
| <i>Aspicilia calcarea</i> | • | • | | • | • |
| <i>Aspicilia contorta</i> subsp. <i>contorta</i> | • | | | • | |
| <i>Aspicilia contorta</i> subsp. <i>hoffmanniana</i> | • | | | | |
| <i>Belonia nidarosiensis</i> | | | | • | |
| <i>Bilimbia sabuletorum</i> | • | | | | • |
| <i>Botryolepraria lesdainii</i> | • | • | | | |
| <i>Buellia aethalea</i> | • | • | | • | |
| <i>Buellia ocellata</i> | • | • | • | • | |
| <i>Caloplaca arcis</i> | | | | • | |
| <i>Caloplaca aurantia</i> | • | • | | • | • |
| <i>Caloplaca austrocitrina</i> | • | | • | | |
| <i>Caloplaca chlorina</i> | | | | | • |
| <i>Caloplaca chrysodeta</i> | | | | • | |
| <i>Caloplaca citrina</i> s. lat. | | • | | | |
| <i>Caloplaca crenularia</i> | | | • | | |
| <i>Caloplaca crenulatella</i> | | | | • | |
| <i>Caloplaca dalmatica</i> | | • | | • | |
| <i>Caloplaca decipiens</i> | | | | • | • |
| <i>Caloplaca dichroa</i> | • | | | | |
| <i>Caloplaca flavescens</i> | • | • | • | • | • |
| <i>Caloplaca flavocitrina</i> | • | | | • | • |
| <i>Caloplaca flavovirescens</i> | • | | • | | |
| <i>Caloplaca holocarpa</i> s. str. | | | • | | |
| <i>Caloplaca holocarpa</i> s. lat. | | | | • | |
| <i>Caloplaca limonia</i> | • | | | • | |
| <i>Caloplaca marmorata</i> | | | | • | |
| <i>Caloplaca oasis</i> | | • | | • | |
| <i>Caloplaca saxicola</i> | | • | | • | |
| <i>Caloplaca teicholyta</i> | • | | | • | • |
| <i>Candelariella medians</i> forma <i>medians</i> | • | | | • | |
| <i>Candelariella vitellina</i> forma <i>vitellina</i> | • | • | • | • | • |
| <i>Catillaria chalybeia</i> var. <i>chalybeia</i> | | | • | • | • |
| <i>Catillaria lenticularis</i> | • | | | • | |

| Lichen | Chiddingstone | Doddington | Hever | Ivychurch | Lenham |
|--|---------------|------------|-------|-----------|--------|
| <i>Cladonia chlorophaea s. lat.</i> | • | | | | |
| <i>Cladonia coniocraea</i> | • | | | | |
| <i>Cladonia glauca</i> | • | | | | |
| <i>Cladonia humilis</i> | • | | | | |
| <i>Clauzadea monticola</i> | • | | | | |
| <i>Collema auriforme</i> | | | | | • |
| <i>Collema crispum</i> var. <i>crispum</i> | | | | • | • |
| <i>Collema fuscovirens</i> | | | | | • |
| <i>Collema tenax</i> var. <i>ceranoides</i> | | | | • | |
| <i>Collema tenax</i> var. <i>tenax</i> | | | | • | • |
| <i>Diploicia canescens</i> | • | • | | • | • |
| <i>Diploschistes actinostomus</i> | | | • | | |
| <i>Diploschistes scruposus</i> | • | • | | | |
| <i>Diplotomma albostratum</i> | | • | | • | • |
| <i>Dirina massiliensis</i> forma <i>sorediata</i> | • | • | | • | • |
| <i>Flavoparmelia caperata</i> | • | • | | • | |
| <i>Flavoparmelia soredians</i> | | | | • | |
| <i>Haematomma ochroleucum</i> var. <i>porphyrium</i> | | • | • | | |
| <i>Hyperphyscia adglutinata</i> | | | | | • |
| <i>Hypogymnia physodes</i> | • | • | | • | |
| <i>Hypotrachyna afrorevoluta</i> | • | | | | |
| <i>Hypotrachyna revoluta s. str.</i> | • | | | | |
| <i>Illosporopsis christiansenii</i> # | | | | • | |
| <i>Lecania hutchinsiae</i> | | | | • | |
| <i>Lecania inundata</i> | | | | • | |
| <i>Lecania rabenhorstii</i> | • | | | • | |
| <i>Lecanographa grumulosa</i> | | | | • | |
| <i>Lecanora albescens</i> | • | • | | • | |
| <i>Lecanora antiqua</i> | • | | | | |
| <i>Lecanora campestris</i> subsp. <i>campestris</i> | • | • | • | • | • |
| <i>Lecanora chlarotera</i> | | • | | • | |
| <i>Lecanora compallens</i> | | | | • | |
| <i>Lecanora confusa</i> | | | | • | |
| <i>Lecanora crenulata</i> | | • | | • | |
| <i>Lecanora dispersa</i> | | • | | • | • |
| <i>Lecanora expallens</i> | • | • | | • | |
| <i>Lecanora horiza</i> | • | • | | • | • |
| <i>Lecanora muralis</i> | | • | | • | • |
| <i>Lecanora orosthea</i> | | | • | | |

| Lichen | Chiddingstone | Doddington | Hever | Ivychurch | Lenham |
|--|---------------|------------|-------|-----------|--------|
| <i>Lecanora pannonica</i> | | | • | | |
| <i>Lecanora polytropa</i> | | • | • | • | • |
| <i>Lecanora soralifera</i> | | • | | | |
| <i>Lecanora sulphurea</i> | • | | • | • | |
| <i>Lecidea grisella</i> ## | • | | • | | |
| <i>Lecidella carpathica</i> | • | | | | |
| <i>Lecidella elaeochroma</i> forma <i>elaeochroma</i> | | | | • | |
| <i>Lecidella scabra</i> | • | • | • | • | |
| <i>Lecidella stigmatea</i> | • | • | • | • | |
| <i>Lepraria incana</i> s. str. | • | • | • | • | • |
| <i>Lepraria vouauxii</i> | | | • | • | |
| <i>Leptogium turgidum</i> | | | | • | |
| <i>Llimonaea sorediata</i> + | | • | | | |
| <i>Melanelixia fuliginosa</i> subsp. <i>fuliginosa</i> | • | • | | • | |
| <i>Melanelixia subaurifera</i> | | • | | • | • |
| <i>Micarea lignaria</i> var. <i>lignaria</i> | • | | | | |
| <i>Myr smaragdula</i> | | | • | | |
| <i>Ochrolechia parella</i> | • | | • | • | |
| <i>Opegrapha areniseda</i> | | | | • | |
| <i>Opegrapha calcarea</i> | • | | | • | |
| <i>Opegrapha gyrocarpa</i> | • | | | • | |
| <i>Parmelia saxatilis</i> | • | • | | | • |
| <i>Parmelia sulcata</i> | • | • | | • | • |
| <i>Parmelina tiliacea</i> | | • | | | |
| <i>Pertusaria albescens</i> var. <i>corallina</i> | | | | • | |
| <i>Pertusaria amara</i> forma <i>amara</i> | • | | | • | |
| <i>Pertusaria lactescens</i> + | • | | | | |
| <i>Phaeophyscia nigricans</i> | | | | • | |
| <i>Phaeophyscia orbicularis</i> | | • | | • | • |
| <i>Physcia adscendens</i> | | • | | • | • |
| <i>Physcia caesia</i> | • | | | • | • |
| <i>Physcia clementei</i> | | | | | • |
| <i>Physcia dubia</i> | | • | | | |
| <i>Physcia tenella</i> subsp. <i>tenella</i> | • | • | | • | |
| <i>Physconia grisea</i> | | • | | • | • |
| <i>Placopyrenium fuscillum</i> | | | | • | |
| <i>Polyblastia albida</i> | | | | • | |
| <i>Porpidia cinereoatra</i> | • | | | | |
| <i>Porpidia soredizodes</i> | • | | | • | • |

| Lichen | Chiddingstone | Doddington | Hever | Ivychurch | Lenham |
|--|---------------|------------|-------|-----------|--------|
| <i>Porpidia tuberculosa</i> | • | • | • | • | |
| <i>Protoblastenia rupestris</i> | • | | | | • |
| <i>Psilolechia lucida</i> | • | • | • | • | • |
| <i>Punctelia jeckeri</i> | • | | | | |
| <i>Punctelia subrudecta</i> s. str. | • | | | | |
| <i>Pyrrhospora querneae</i> | | | • | | |
| <i>Ramalina farinacea</i> | • | | | • | |
| <i>Rhizocarpon reductum</i> | | | • | • | |
| <i>Rinodina oleae</i> | • | • | | • | |
| <i>Rinodina teichophila</i> | | | | • | |
| <i>Sarcogyne regularis</i> | | | • | • | |
| <i>Schismatomma decolorans</i> | | | | • | |
| <i>Scoliosporum umbrinum</i> | • | • | | • | |
| <i>Spiloma auratum</i> # | | | | • | |
| <i>Tephromela atra</i> var. <i>atra</i> | • | • | • | • | • |
| <i>Thelidium incavatum</i> | • | | | | |
| <i>Toninia aromatica</i> | • | | | • | |
| <i>Trapelia coarctata</i> | • | • | | | • |
| <i>Trapelia glebulosa</i> | • | | | | |
| <i>Trapelia obtegens</i> | • | | | | |
| <i>Trapelia placodioides</i> | • | | | | |
| <i>Trapeliopsis granulosa</i> | | | | • | |
| <i>Verrucaria baldensis</i> | | • | | • | • |
| <i>Verrucaria bulgarica</i> + | | | | • | |
| <i>Verrucaria calciseda</i> | • | • | | • | |
| <i>Verrucaria elaeina</i> | | | | • | |
| <i>Verrucaria hochstetteri</i> | • | • | | • | |
| <i>Verrucaria macrostoma</i> forma <i>furfuracea</i> | | | | • | |
| <i>Verrucaria macrostoma</i> forma <i>macrostoma</i> | • | | | • | • |
| <i>Verrucaria muralis</i> | • | | | • | |
| <i>Verrucaria nigrescens</i> forma <i>nigrescens</i> | • | • | | • | |
| <i>Verrucaria nigrescens</i> forma <i>tectorum</i> | • | | | | • |
| <i>Verrucaria viridula</i> | • | • | | | • |
| <i>Weddellomyces epicallopsisma</i> # | • | | | | |
| <i>Xanthoparmelia mougeotii</i> | • | | • | | • |
| <i>Xanthoparmelia verruculifera</i> | • | • | • | | • |
| <i>Xanthoria calcicola</i> | | | | | • |
| <i>Xanthoria parietina</i> | • | • | | • | |
| <i>Xanthoria polycarpa</i> | | • | | | |

Minutes of the ANNUAL GENERAL MEETING

Royal Botanic Gardens, Kew - Saturday 11th January 2015

In attendance: Rod Ashwell, Juliet Bailey, Lesley Balfe, Ishpi Blatchley, Kristine Bogomazova, Paul Cannon, Katherine Challis, Brian Coppins, Ginnie Copsey, Peter Crittenden, Amanda Davey, Simon Davey, Frank Dobson, Heidi Döring, John Douglass, Sally Eaton, Lorraine Ezra, Vince Giavarini, Terence Hackwill, Mary Hickmott, Barbara Hilton, David Hill, Les Knight, Peter Lambley, Jack Laundon, Peter O'Neill, Allan Pentecost, Steve Price, William Purvis, Maxine Putnam, Sheila Reid, David Richardson, Ken Sandell, Mark Seaward, Paula Shipway, Janet Simkin, John Skinner, Eluned Smith, Frances Stoakley, Holger Thüs, Catherine Tregaskes, Vanessa Winchester

Apologies for absence: Chris Hitch, Peter Scholz

1. Communications

Deceased members were reported as: Dr David Galloway, Dr Peter James, Mr F.D. Kelsey, Mrs M.J. Palfrey and Mr Justin Smith.

2. Minutes of the Annual General Meeting held at the University of Nottingham, January 2014

The Minutes of the 2014 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*

Firstly I would like to thank Paul Cannon and RBG Kew for hosting this meeting, John and Angela Skinner for their help with the catering, and of course Mark Seaward for delivering a fascinating Swinscow lecture last night and dealing with the sale of books from the library of Peter James.

Peter was a founder member of this society, and there was a good turnout of BLS members at his funeral. He is a great loss to the society and we miss him. We have recently also lost David Galloway, from New Zealand, whose writings were a regular feature in The Bulletin.

Last year you did me the honour of electing me as your President for two years. The first year has flown by, so quickly that it made me wonder whether we should consider a three year term in future, in line with that of the elected members of Council. There is a lot going on in the BLS, a remarkable amount for a society of this

size, and two years is not always long enough to get things done before handing over to the next incumbent.

Council has met three times since the last AGM. These meetings always have a long agenda, but they are very productive and without them the society would soon grind to a halt. I would like to thank all the members of Council for their help and support over the last year.

All the committees are now going strong: EPC led by Sally Eaton; MSC chaired by David Hill; Finance, comprising John Skinner and Heidi Döring, supported by others as needed; Conservation led by Bryan Edwards with help from Peter Lambley and Ray Woods; the Churchyard committee run by Ivan Pedley and Ishpi Blatchley; and the newly reconstituted Data Committee chaired by Les Knight. I would like to thank them all, and the other officers, on behalf of the society for their cheerful enthusiasm and hard work.

The Conservation Committee had not met for quite a while before this week, but they keep in touch by email and have been active in responding to planning applications and in supporting Plantlife and the national agencies in their work on conservation issues and rare species. Bryan Edwards has now been in post as Conservation Officer for 12 years and is doing a great job for the society. He is currently working on a Red Data Book for England, something we have needed for a long time.

EPC have been very active, covering everything from hand lenses and pencils to working with major projects such as OPAL and Making the Small Things Count, and of course the photographic competition which has been a great success. The winners were announced yesterday, and we were all impressed, not only by the quality and sheer exuberance of some of the photographs but also by the amount of work that went in to making the competition such a success. It has done much to raise the profile of the society, and I hope it will become a regular event.

Data and MSC tend to work more quietly in the background, but they get things done. Data are now looking ahead to develop the use of modern technology to support lichen recording while still building up our database and making it more accessible to members. MSC has a dual role, keeping things like the herbarium, library, archives and field meetings ticking over while also looking to the future to see how we can improve the service that the society provides to its members.

Finance have been particularly busy this year. The implementation of the new membership administration system had to be put on hold, which was disappointing but there were good reasons for it and we are now looking again at other options. I hadn't realised until this last year quite how much John and Heidi do for the society, but I know now that we would be lost without them.

These days it is vital that a society like ours is able to carry on even if something happens to key personnel, such as John and Heidi, so we have been looking closely at the workloads of all the officers and committee chairs to see if they could be helped by having some sort of admin support or by sharing their workload between more people. That review showed that we currently have about 100 active UK members, of whom 21 are officers, committee chairs, or have some other job to do in the society, another 19 serve as members of Council and/or committees, and another

34 are not on committees but act as referees or as local or diocesan contacts. That adds up to three quarters of our active membership contributing in one way or another to the work of the society, which is an impressive total. Curiously, of the 58 people listed as being referees or contacts, fewer than half have ever sent records in to the database.

We are all busy and many of us feel overworked. The effort required to run a national society in the 21st century is increasing steadily while the pool of people, and the time they can commit to it, seems to be decreasing year on year. If we continue to overload people who are, after all, volunteers, they will walk away, especially if the work they are doing is purely administrative as that is not what most of us joined the society to do. Sooner or later, and probably quite soon, we will have to take on administrative support. This is a big step to take and one that is difficult to reverse, so Council are looking at it carefully and taking their time over it. In the meantime if anyone would like to get more involved in the work of the society, there are plenty of opportunities so please do come and talk to me.

Returning to the highlights of the year, the symposium in Nottingham, organised by Barbara Hilton, was a great success. The Lichenologist is going from strength to strength, as is the Bulletin. The Lobarion project is coming to an end, or at least the end of the current phase. This year that project included a workshop meeting in Cumbria, and that provided some of us with a welcome opportunity for discussion as well as fieldwork. The other field meetings this year have also been notable, including one to Iceland and another in Cumbria, this time in the south Lakes.

We continue to work closely with Plantlife, the statutory agencies and the NBN on a wide variety of issues, and we also keep in touch with the Society of Biology and the National Federation for Biological Recording. As your President I have been invited to represent the society at a number of events, and I have tried to get along to as many as I could. These included the CEH

In conclusion, the society is in fine fettle and is achieving a great deal with limited resources, but we are at a stage where there is a lull in our activity. For once we have no major projects in progress, although there are several on the horizon. We need to look to the future and to how we can best support both our members and projects such as a new Flora, and recording projects such the Lobarion and the uplands survey that is needed for the English Red List. There is a growing demand for more accessible data and for help with data analysis, and for mentoring, novices meetings and support for local groups. There is a lot more that we could be doing if we only had the people to do it.

We heard last night about the tremendous achievements of the Mapping Scheme back in the 1970-80s. In my dealings with other societies, particularly the BSBI and BBS, I have become very aware of the work of their Recording Schemes, and it seems very clear that we are missing out by no longer having one. Council are looking into this now and we hope to be able to launch a new Lichen Recording Scheme at the next AGM. These days that doesn't necessarily mean a vast square bashing project, or the production of an Atlas although in time that is a possibility. A modern Recording Scheme is more about coordination, training and support, and

that could be just what we need to get more people actively involved in our society and in the study of lichens.

We have a lot to do, and next year could be an interesting one for the society.

The President's address was followed by tributes paid to Peter James and David Galloway, by Pat Wolseley and Mark Seaward, respectively.

Questions/Comments from the floor:

Jack Laundon asked when a new list of members would be published. Janet Simkin explained that this has been delayed by Data Protection and that we now have to give everyone the opportunity to opt out of inclusion in the printed list. Heidi Döring suggested that people might contact her if they need contact details for specific individuals.

4.2 Treasurer – John Skinner

A summary of the Financial Statement was distributed at the meeting. The Society has funds of £380,250 of which the majority, some £367,000, is unrestricted. The remaining £13,000 is restricted to particular projects such as the Ash Survey and the Lobarion Project. This is a healthy situation.

Income is from three main sources. By far the largest is our contract with the publishers of *The Lichenologist*. Profit from this was £42,824, which includes £9,548 from the sale of digitalised journal content. The second main source of income is membership subscriptions, £18,706, and this represents an increase of over £4,000 on the previous Financial Year thanks to the work of our Membership Secretary Heidi Döring. The third source is grants for particular projects.

Regarding expenditure, governance costs increased because the 2014 AGM, which was combined with the Symposium, was slightly more expensive than usual. Membership support appeared less in 2014 than in 2013 because only one issue of the *Bulletin* was included in the figures, and the Society was not charged for website costs. The net result was that income exceeded expenditure by £31,523.

While the position for the current financial year will be satisfactory, there are concerns about future years as our costs may rise significantly. In particular the Society desperately needs some administrative support for which it is going to have to pay. We are taking steps to increase investment income but the main reserves must be set aside for our charitable objectives rather than the day-to-day running of the Society.

John acknowledged the support of the trustees, in particular the Assistant Treasurer and Membership Secretary, Heidi Döring, and the President, Janet Simkin, with an additional note of thanks to our American Treasurer Jim Hinds.

Questions/Comments from the floor:

David Richardson asked for clarity on our 'tangible assets', and noted that because a major part of the Society's income is *The Lichenologist*, trends in publishing could impact this significantly. John replied that the tangible assets included capital items such as microscopes which depreciate over time at c. 10% per year, and confirmed

that Council was making itself fully aware of the publishing landscape and had these changes under review.

Adoption of the Treasurer's Report and the Society Accounts was proposed by Paul Cannon, seconded by David Richardson, and unanimously agreed.

4.3 Membership Secretary – Heidi Döring

We currently have 619 members, of which 342 are UK based. Approximately 25% of members do not take *The Lichenologist*, and of those that do only c.10% are on-line only subscribers.

Jim Hines, Les and Sue Knight, and John Skinner were thanked for their assistance over the year.

4.4 Conservation – Peter Lambley, from a report provided by Bryan Edwards

The Conservation Committee did not manage to meet during 2014 due to the work commitments of its members, but items were discussed by email and it continued to respond to consultations and correspondence as necessary.

As mentioned last year, populations of *Collema dichotomum* continue to be threatened in Scotland by proposed hydroelectric schemes. John Douglass, Andy Acton, and Brian and Sandy Coppins continue to work hard on this issue, along with Ray Woods in Wales, to ensure that lichen communities are taken into consideration during the planning process.

A very successful meeting took place in March 2014 looking at historical sites for Lobarion species in the Lake District. *Lobaria pulmonaria* was found in good quantity with *L. amplissima* and *L. virens* still present in several sites, including some last recorded by Francis Rose in the 1980s. Of the associated species *Leptogium burgessii* survives in very small quantity in its only current English sites. Thanks were expressed to Natural England for funding, Peter Lambley for organising the meeting and to Neil Sanderson for his expertise in the field.

Work has started on Lichen Red List for England, and analysis of the Society's database has already revealed interesting findings. A number of important upland sites in England have not been visited since Oliver Gilbert's surveys in the 1980s and we are desperately lacking recent data on a significant number of species. Some are undoubtedly still present, but there have been changes in the uplands over the last 30 years, particularly nutrient enrichment, and we already know that species of *Alectoria* and *Bryoria* have declined generally.

Lichen Taxon Working Groups convened by Plantlife and Plantlife Cymru met to discuss and plan work on the Section 41 and Section 42 lichen species respectively, and we hope this will lead to conservation work on some of our most threatened lichens.

Bryan thanked the Committee for their work over the year, as well as Plantlife, Natural England, Scottish Natural Heritage and Natural Resources Wales for their ongoing support.

4.5 Data

Les Knight presented progress by the Data Committee, including a five year strategy which had been put to Council. This identified three main themes and progress against these is reported below.

Theme 1: Maintaining our lichen records database

The database continues to grow at the rate of over 50,000 records a year. A Recorder 6 User Guide is being developed which captures issues and problem solving as they arise. Risk to the Society's data has been significantly lowered through training and the distribution of multiple database copies.

Theme 2: Supporting field recording and identification

The development of tools to support field recording is advancing rapidly. Our recent work includes the NBN Record Cleaner, for which lichen rules have been developed by Janet Simkin and Brian Coppins, which combines biogeographic distribution with levels of difficulty in identification to flag possibly erroneous records for checking. Other new tools include the development of an electronic multi-access key for *Cladonia*, utilising the LUCID software, which will be trialled at the Unst meeting.

Theme 3: Supporting user access to the database

Data access has been improved through the upload of distribution maps for all the species for which we have records to the Species Accounts pages on the BLS website. These were produced from the database using DMap, and they are available for use from any device capable of accessing the internet. This opens up the possibility of using such data in the field where suitable phone coverage is available. This task will probably need to be repeated annually to ensure the maps do not get out of date. More detailed maps are available to anyone with the DMap software on their computer.

4.6 Education and Promotions – Sally Eaton

EPC met three times during 2014, and has been mainly involved in the new promotional materials and hand lens scheme, the Making the Small Things Count initiative, the skills list and the photography competition.

Promotional Material and the Hand Lens Scheme

During the January 2014 meeting, new promotional items such as pencils and stickers were handed out to members who frequently run promotional events. In addition, a new hand lens scheme was trialled, with 100 lenses being ordered and distributed amongst members who frequently run courses. The lenses were available to loan to people attending lichen courses, with the option of buying the lens for a cost of £2.50.

Many members quickly ran out of stickers and hand lenses, so in September Council approved an annual budget of £300 to replenish stocks. A new batch of stickers and hand lenses has been ordered for distribution at the AGM.

The Skills List

During the January 2014 meeting, Council approved the idea of a 'skills list' which would provide structured information in terms of course content and prior knowledge, and provide a tiered training plan for members joining lichen courses. This has required a lot of discussion and is still being worked on.

Photography Competition

The committee worked hard to get the competition off the ground. The rules were drawn up and circulated early in 2014, and a flier was designed by Sheila Quin. Promotion began in the spring, and the competition was advertised widely in magazines, amongst local natural history and photography groups, on social media, in the Bulletin and on the BLS website. A total of 140 entries were received from 37 entrants around the world (UK, Canada, California, Chile, Luxembourg, France, Finland and Germany), and the quality of the entries was high. The judging of the entries took place in December at RBGE, and the winners were announced at the reception preceding the Swinscow lecture.

Making the small things count

The Society has been working in partnership with Plantlife on the Making the Small Things Count project in the southwest of England. So far, the team (led by Graham Boswell, with Pat Wolseley and Maxine Putnam) have delivered six training days and three survey days to volunteer lichenologists. Some of the volunteers have gone on to join local groups and have taken part in surveys. Additional funding enabled us to increase the number of survey days from the initial four to nine. Other elements of the project involved the provision of content for four lichen walks in the region comprising Quantock Hills AONB – Holford to Nether Stowey, North Devon Coast AONB – Marsland coast, Exmoor National Park – Bossington, and Dartmoor National Park – Ashburton. In addition, a workshop for land managers was held in March with a lichen presentation and walk being led by Sally Eaton, and with an introductory lichen ID session facilitated by Graham Boswell.

Looking to the future, we will soon finalise the Skills list and the education and promotion areas of the website will receive updated content. A lot more could be achieved if we had more resources, such as educational prizes and a mentoring scheme.

4.7 Members' Services – *David Hill*

MSC met twice during 2014. They have been occupied with Society business that related to members interests, particularly supporting the Membership Secretary and Assistant Treasurer, the Field Meetings Secretary, Curator, Librarian, Bulletin Editor and Website Editor.

The Website continues to improve. Grant information has been better arranged and is easier to use, with a single application form which can be easily downloaded and submitted.

An updated Members Handbook is planned, but a decision still has to be taken on whether to put past Bulletins and the Members Handbook on line rather than sending printed copies in the new members' welcome packs. Members have expressed a preference for printed copies, and there is a concern that making too much information accessible to all through the website creates a situation in which potential members might question whether they need to join to get access to the information they need. Other organisations have encountered this problem and it continues to be reviewed.

On the whole the Society seems to be thriving. MSC would like to offer more service to members but this will follow once we have a more efficient membership administration system. Members are invited to contact David with suggestions of improvements in the Society's offer to members.

It was noted that the committee needs a secretary.

4.8 Bulletin Editor – *Paul Cannon*

Members were reminded that the Bulletin is what we make of it, and contributors were warmly thanked for their efforts in 2014. Paul is soliciting articles for 2015, with a deadline for the summer issue of 1st May, and for the winter issue of 1st October.

There was a problem with distribution of the winter issue, but the distribution company worked quickly to resolve this and sent copies to all those members who requested them.

4.9 Senior Editor of *The Lichenologist* – *Peter Crittenden*

A new contract has been agreed with CUP and will soon be signed.

Production of *The Lichenologist* continues with some relatively minor problems. Tony Braithwaite (Managing Editor) is recovering from an illness and a potential replacement is in training, initially to reduce Tony's workload over the next 12 months and eventually to take over his role.

The January issue of *The Lichenologist* is due out early February; one month late because the printers had forgotten to send hard copies of the revises to the Managing Editor and CUP did not notice this error. The March issue will be the first issue produced by a new "off-shore" typesetter, MacMillan in India.

The rate at which *The Lichenologist* received new manuscripts declined during 2014 and the rejection rate went up. Eighty-seven manuscripts were received, of which 37 (to date) were rejected, compared to 114 submissions and 37 rejections in 2013. The number of pages published in 2013 and 2014 were 857 and 837, respectively. This downturn in publishable papers is likely to translate into slimmer issues and fewer published pages in 2015.

Several members of the Editorial Board met over dinner at IMC10 in Bangkok in August 2014. This was financed by the Society at a cost of c. £85.

On behalf of the Society, Peter thanked the team that runs the journal: the Managing Editor Tony Braithwaite, members of the Editorial Board, the proof readers (Jack Laundon, Brian Coppins and Kathryn Challis), the Editorial Assistant Justine Fox, numerous referees, Margaret Crittenden (trainee Managing Editor) who prepared the

Index that members will receive with the January issue, the staff at CUP and, of course, the authors.

4.10 Website Editor – Janet Simkin

The website continues to be well used, particularly by professionals (consultancies, planners and environmental organisations) and students. However, it went live more than two years ago with a number of gaps, particularly in the conservation, habitat and education pages, and these have still not been filled. We need someone to take on the role of website editor to coordinate this and work with authors to develop new content.

The most popular pages with our members seem to be the field meetings programme and the taxon dictionary, both of which are updated regularly. There is a growing demand for species accounts on the website, but again we need someone to take the lead on this. The templates are set up, with a few examples, and all the distribution maps have now been loaded (thanks to Les Knight).

The website was down for three days in March due to a hardware failure on the server. Other societies were also affected but recovered more quickly because they had a fall-back arrangement with CEH, so we are looking into doing something similar.

Implementation of a member's area is related to the new membership administration project, and so is currently on hold.

4.11 Field Meetings Secretary – Steve Price

Meetings held in 2014

Four field meetings, one workshop and a one day outing were held in 2014, and all were well attended. Thanks go to the local organisers for suggesting, offering or being persuaded to arrange, lead and tutor the meetings. The programme aims for breadth geographically and in the range of habitats covered, and meetings contribute importantly to lichen recording as well as being a learning opportunity.

BLS 2014 AGM Nottingham Field outing - Calke Park NNR (National Trust)

Local organiser – Steve Price; attendees: 39

BRISTOL UNIVERSITY WORKSHOP

Lichen Pycnidia and Conidia and their role in lichen identification

Tutors - Dr Brian J Coppins and Dr David J Hill; attendees: 19

BLS SPRING 2014 MEETING - Beara Peninsula (West Cork) and Killarney

Local organiser - John Douglass and Vince Giaravini; attendees: 16

BLS MID-SUMMER MEETING 2014 – West Iceland

Local organisers – Silke Werth and Starri Heiðmarsson; attendees: 21

BLS LATE-SUMMER MEETING 2014 - Southern Lake District

Local organiser - Allan Pentecost; attendees: 21

BLS AUTUMN MEETING 2014 - Kent

Local organisers - Ishpi Blatchey and Keith Palmer; attendees: 31

Meetings arranged for 2015

BLS 2015 AGM Kew Field outing – Brookwood Cemetery, Woking Surrey

Local organiser – Paul Cannon

NOTTINGHAM UNIVERSITY WORKSHOP

The lesser used stains, tests and techniques in lichen identification

Tutors - Brian Coppins, David Hill and Mark Powell; Host - Peter Crittenden

Note: because of a combination of unforeseen circumstances the tutors are no longer able to run this workshop. It has been postponed and it is hoped to run it in 2016.

BLS SPRING MEETING 2015 – Snowdonia

Local organiser – Ray Woods

BLS SUMMER MEETING 2015 – Unst, Shetland (including workshop sessions on the genus *Cladonia*)

Local organiser – Becky Yahr; *Cladonia* tutor - Annelie Burghause

BLS AUTUMN MEETING 2015 - Forest of Dean

Local organiser – Juliet Bailey

Meetings being planned for 2016

WINTER WORKSHOP – Nottingham University

BLS SPRING MEETING 2016 – Isle of Wight

BLS SUMMER MEETING 2016 – Sleat, Isle of Skye

BLS AUTUMN MEETING 2016 – North Pennines

Courses and Local Field Meetings

To encourage wider participation in lichen related activities details of meetings and courses of some local natural history societies, the Field Studies Council and other organisations are posted to the Events section of the BLS website. Members are asked to submit details of such meetings to the Field Meetings Secretary for this to be done.

4.12 Librarian –report provided by Ray Woods

Ray Woods had submitted a library report, confirming the secure storage for library items but also stating that the level of use was low. There was a need to consider the purpose and future of the library, and Ray and Theresa Greenaway will be putting a paper to council in the next few months.

Questions/Comments from the floor:

Ginnie Copsey asked whether there was a list of available books. Janet Simkin confirmed that there is an inventory from the 1980s but this has not been updated

since. David Hill invited members to let the Society know how they want the library to develop via the Member Services Committee.

4.13 Archivist – *Mark Seaward*

Some archives are now held with the library, but the bulk of material continues to be stored at the University of Bradford, where it is in regular use. A new location will soon have to be found, and we will also have to take a decision on the future of the Mapping Scheme database and cards.

4.14 Herbarium Curator –*report provided by Richard Brinklow*

The Society's Herbarium has had a fairly typical year with only a small number of loans being sent out, mainly to new members. Members were reminded that they are welcome to borrow specimens from the Herbarium. Although not comprehensive, it does contain about 800 taxa of British lichens and a list of contents can be found on the BLS website. The Herbarium is particularly useful for beginners wishing to get to know macro-lichens.

Specimens (preferably in batches of not more than 20) can be borrowed by post by emailing requests to the Curator (herbarium@britishlichensociety.org.uk). With ever-increasing postal charges, Richard pays particular attention to package dimensions and weight when despatching loans. Postage reimbursement (usually about £5) should be enclosed when the loan is returned.

As the Herbarium contains mainly bequest material, many crustose species which have only been recognised in the last few years are still poorly represented. Authors and others who have surplus non-cited specimens are encouraged to donate them.

5 Election of Officers, including three members of Council

There were four retirements from Council: Theresa Greenway, Les Knight (who becomes Chair of the Data Committee), Alan Silverside, and the past-President Barbara Hilton. All were thanked for their service.

Three nominations to council were made:

- Ishpi Blatchley, proposed by Barbara Hilton, seconded by Simon Davey
- Richard Brinklow, proposed by John Skinner, seconded by Steve Price
- Neil Sanderson, proposed by Pat Wolseley, seconded by Vince Giavarini

All were unanimously approved.

6. Subscription fees and changes to the Constitution

Proposals to change to the constitution to alter the membership categories, and to amend the subscription rates, were commended to members. These were approved by Council in September and details of the changes were published in the winter Bulletin (pp 132-136). No comments had been received in advance of the AGM.

Proposal 1: Membership Categories

The proposal was to separate the subscription to the Society from the cost of the *Lichenologist*. Under the proposal, most of us would be 'Regular' members paying a subscription which would be subject to discounts for age (young and old) and student

status. Regular membership confers voting rights and receipt of all publications except *The Lichenologist*. To subscribe to *The Lichenologist*, an extra payment is added, slightly less in electronic form than in hard copy.

Proposal 2: Subscription rates for membership and *The Lichenologist*

The proposal was to increase the subscription rates from 1st January 2016 to £30.00 for Regular members, or £15.00 with the junior or senior discount, plus £15.00 for *The Lichenologist* in printed form or £10.00 electronic if required. The one-off payment for Life members increases correspondingly to £300, plus £150 or £100 for *The Lichenologist* in printed or electronic form respectively. There is no change to the subscription for Family members. For 2015 the subscription amount and entitlements remain unchanged.

Questions/Comments from the floor:

David Richardson pointed out the proposals bring the Society in-line with the American Bryological and Lichenological Society.

Mary Hickmott pointed out that because people are living longer, a 10x normal subscription for life members may now be too low. Janet Simkin confirmed that life membership had already been discussed at Council but any changes had been deferred to allow this meeting to concentrate on the changes proposed. Heidi Döring confirmed that we currently have 58 life members, approximately 10% of membership. Frank Dobson suggested that the Society might write to life members asking for an additional contribution to support specific projects, and this met with approval.

Both the changes to the constitution (Proposal 1) and the membership fees and subscriptions (Proposal 2) were proposed by John Skinner, seconded by Heidi Döring, and approved on a majority vote with c. 20% abstention. There were no votes against.

7. Ursula Duncan Award

The Ursula Duncan Award was presented to Bryan Edwards, and received on his behalf by Vince Giavarini. The oration was given by Peter Lambley.

8. Any Other Business

There was no other business.

9. Date and place of AGM 2016

Newcastle was proposed as the venue for the AGM to be held on 16th January 2016, and this was approved.

Notice of Annual General Meeting

The 2016 Annual General Meeting of the British Lichen Society will take place on Saturday 16th January 2016 in Newcastle upon Tyne, provisionally at the Great North (Hancock) Museum.

Further details will be announced in the Winter Bulletin.

CONSTITUTION [as agreed at the 2015 AGM]

12th edition: February 2015

1. Name

The name of the society shall be the **British Lichen Society**.

2. Objectives

- To promote and advance all branches of the study of lichens especially in relation to those of the British Isles.
- To encourage and actively support the conservation of lichens and their habitats.
- To raise awareness of the importance / significance of lichens in the environment.

In furtherance of these objectives but not otherwise:

- to publish results of investigations and other relevant work in the Society's publications to the extent that the Council of the Society and Editors deem to be suitable; such publications to be available for sale to the public.
- to facilitate the exchange of information among lichenologists by organising field meetings, workshops, conferences, lectures, exhibitions, and by other means.
- to promote education and awareness of lichens and to support the training of lichenologists.
- to aid in the maintenance of adequate representative collections of British lichens in the national and other public herbaria.
- to establish and maintain a collection of lichens for the use of members and others.

- to develop and maintain databases of information on the distribution and conservation status of lichen species in the British Isles.
- to maintain a library of books and lichenological journals; these to be made available to non-members at the discretion of the Librarian who shall be responsible to the Council.
- to raise money by membership fees or by any other means, at the discretion of Council, and within the rules set by the Charity Commissioners.
- to establish, own and maintain conservation areas and to aid in the establishment and maintenance of conservation areas.
- to promote the views of the Society on matters relating to lichens at a local and national level.

3. Membership

The Society shall have honorary members, regular members, and family members.

Honorary members shall be nominated by the Council in accordance with the criteria outlined in Rule 13 and elected on a majority vote of those present and voting at a General Meeting of the Society. Election of an Honorary Member should not increase their number beyond 2.5% of the total membership at that time. They shall enjoy the same benefits as regular members but shall pay no subscription and receive *The Lichenologist* free of charge.

Regular members shall be persons who have signed the form of membership and paid the subscription. They have full membership rights and receive the *Bulletin*. Regular members are entitled to subscribe to *The Lichenologist* at a special member's rate. Members under the age of 18 are not eligible to vote at a General Meeting or serve on Council.

Full-time students, persons under the age of 18, and persons aged 65 or over are entitled to take up regular membership at a discounted subscription rate. Regular members aged 65 or over may pay a life subscription.

Family membership is available to persons living in the same household as a regular member. Family members receive no publications and have no right to vote at a General Meeting or serve on Council.

4. Removal from Membership

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

Council members at least 7 days before the meeting, or by means of a verbal reply at the meeting, or both. A member so removed shall forfeit any claim upon the Society.

5. Subscriptions

Subscription rates for regular and family membership, including the discounts and life subscription option specified in Rule 3, shall be determined at a General Meeting of the Society by a majority vote of those present and voting. At the same time a member's subscription rate for *The Lichenologist* shall be determined in the same way. Subscriptions shall relate to one or more calendar years, and **shall be payable in advance on or before 1st January each year**. A person joining the Society as a regular member who has signed the form of membership and paid a subscription shall be entitled to receive all the Society's publications which he or she is entitled and are issued during the calendar year(s) for which the subscription is paid. Members who have not paid a current subscription will not receive publications; membership terminates if no renewal payment is received within the first 3 months of a year. If a renewal payment is received later in the year membership will be reinstated.

6. Officers

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

7. Election of Officers

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

8. Council

The Council shall consist of the officers of the Society and of nine members each elected at a General Meeting of the Society for a term of three years with three new members normally being elected each year. Nominations for the members shall be in writing, submitted with the consent of the nominee, and shall be received by the Secretary at least two weeks before an Annual General Meeting. The Council shall have power to make nominations at any time prior to an Annual General Meeting.

The members thus elected shall not be eligible for re-election until one year after their term of office. The retiring President shall remain a member of the Council for one year following his/her retirement. The Council shall have the power to co-opt to fill any vacancy on the Council or to offer specialist advice.

The following are not members of Council but are entitled to receive the minutes of Council meetings and to make a personal report at the Council meeting immediately prior to the AGM: Field Meeting Secretary, Mapping Recorder, Database Manager, Archivist, Curator, Librarian, Webmaster. At other Council meetings they will report through either the Chair of the Data Committee, Chair of Members' Services Committee or Chair of the Education and Promotions Committee.

9. Duties of Council and Officers

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

10. Trustees

The Trustees shall be the officers and members of Council.

11. Payments to Trustees

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

12. Meetings

The Society shall hold an Annual General Meeting and such others as the Council shall decide. The Secretary (or in his or her absence a person appointed by the chairman of any meeting) shall publish to all members of the Society the formal decisions taken at every General Meeting of the Society. Minutes shall be taken of all formal meetings of the Society and its Council. Notice of a General Meeting of the Society shall be sent to members at least four weeks before the date of the meeting.

The procedure and order of business at meetings shall be decided by the chairman. A Special General Meeting of the Society shall be convened on the requisition of the Council or of twenty members. The requisition shall be addressed to the Secretary and shall specify the purpose for which the meeting is called. A convening notice stating this purpose shall be sent to every member at least fourteen days before the meeting is to take place. Notice of a Council meeting shall be sent to all members of Council at least fourteen days before the date of the meeting. A quorum at a General Meeting of the Society shall be twenty five members and at a meeting of the Council eight members of Council.

13. Honours and Awards

Honorary Members shall be distinguished lichenologists and / or persons who have rendered outstanding service to lichenology. They shall be elected in accordance with Rule 3. Presentation of Honorary Membership may be made at an international lichenological meeting or at a General Meeting of the Society.

Recipients of the **Ursula Duncan Award** shall be persons who have rendered outstanding service to the Society; they may be proposed by any member of the Society, seconded by five other members and shall be approved by Council. The award will be made at a General Meeting of the Society.

14. Changes to the Constitution

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

Certified as a true copy of the constitution as passed at the Annual General Meeting of the British Lichen Society on 17th January 2015.

British Lichen Society

Charity no. 228850



Summary Statement of Financial Activities

For the year ended 30 June 2014

| | 2014 | 2013 | Notes |
|--|----------------|---------|---|
| Incoming Resources | | | |
| <i>Incoming resources from generated funds</i> | | | |
| Voluntary income | 111 | 376 | Donations |
| Sales | 1,990 | 2,833 | Mainly sales of the flora |
| Investment income | 882 | 802 | |
| <i>Charitable Activities Income</i> | | | |
| Members' subscriptions | 18,706 | 14,545 | |
| 'The Lichenologist' | 108,494 | 99,954 | After expenditure net income of £42,824 |
| Field Meetings | 780 | 150 | |
| Courses & workshops | 2,720 | 1,420 | |
| Grants and awards | 10,250 | 700 | Ash Die-back, Lobarion grants, restricted |
| Symposium | 4,060 | - | Registration and grants to BLS |
| Coppins presentation | 300 | - | Payments for meals |
| Total incoming resources | 148,293 | 120,780 | |
| | | | |
| Resources Expended | | | |
| <i>Fundraising costs</i> | 1,424 | 1,355 | Mainly purchase of sales items |
| <i>Charitable Activities</i> | | | |
| 'The Lichenologist' | 65,670 | 65,971 | |
| Field Meetings | 2,782 | 2,327 | |
| Courses & workshops | 3,258 | 4,101 | |
| Database Project | 6,259 | 210 | Invoiced in 2014 for 2013 work |
| Membership support & promotion | 14,068 | 23,183 | |
| Grants & awards | 2,570 | 1,419 | |
| Symposium | 8,901 | - | Inc. Symposium grants |
| Lobarion Project | 1,838 | 1,447 | |
| Ash Die-back Project | 2,000 | - | |
| 'Making Small things Count' Project | 122 | - | |
| Coppins presentation | 2,570 | - | Mainly travel costs for VIP guests |
| Governance costs | 5,308 | 3,612 | Inc. accountancy and AGM costs |
| Total Resources expended | 116,770 | 103,625 | |
| Net incoming/(outgoing) resources | 31,523 | 17,155 | |

Summary Balance Sheet at 30 June 2014

| | 2014 | 2013 |
|--|----------------|----------|
| Fixed Assets | | |
| Tangible assets (equipment, etc.) | 954 | 192 |
| Current Assets | | |
| Stocks | 14,185 | 13,710 |
| Debtors | 1,262 | 2,685 |
| Cash at Bank | 379,127 | 348,032 |
| Creditors (falling within 1 year) | (11,125) | (12,258) |
| Net current assets | 383,449 | 352,169 |
| Total Assets less current Liabilities | 384,403 | 352,361 |
| Creditors (due after more than 1 year) | (4,153) | (3,634) |
| Net Assets | 380,250 | 348,727 |
| | | |
| <i>Represented by</i> | | |
| Unrestricted Funds | 367,245 | 338,944 |
| Restricted Funds | 13,005 | 9,783 |
| Total Funds | 380,250 | 338,944 |

The summary accounts are extracted from the full Annual Accounts that were approved by Council on 27 September 2014. The full Annual Accounts have been subject to an Independent Examination and this report was unqualified. A copy of the full Annual Report and Accounts will be supplied on request to the Treasurer (treasurer@britishlichensociety.org.uk).

Independent Examiner's Statement on Summarised Financial Statements

I have examined the summarised financial statements of the British Lichen Society for the year ended 30 June 2014.

Respective responsibilities of the trustees and examiner

The trustees are responsible for preparing the summarised financial statements in accordance with applicable United Kingdom law and the recommendations of the Charities SORP. My responsibility is to report to you my opinion on the consistency of the summarised financial statements, within the Annual Report, with the full annual financial statements. My report on the charity's full annual financial statements describes the basis of my report on those financial statements.

Opinion

In my opinion the summarised financial statements are consistent with the full annual financial statements of the British Lichen Society for the year ended 30 June 2014.

J Groves FCA
 Bromhead
 Harscombe House
 1 Darklake View
 Plymouth
 Devon
 PL6 7TL

Bryan Edwards – recipient of the 2015 Ursula Duncan award

Sir James Edward Smith, the 18th century Botanist and founder of the Linnaean Society once said that many of our recruits come from boys who spend their time grubbing about the hedgerows and ditches of our countryside and as a result develop a curiosity about nature. Smith would have recognised Bryan Edwards as one of them and would have been delighted with his development into an accomplished all round field naturalist. He is one of those rare people who can claim in the era of specialisms to having a wide interest and knowledge in many groups in the best traditions of British science. In addition to this all round knowledge he has made major contributions to lichenology through meticulous fieldwork and as Conservation Officer to the Society for the last eleven years.

Bryan as a pupil of Corfe Hills Upper School, Poole developed a passion for botany by way of his mother's enthusiasm for wildlife while still a young boy. He came into his own at the beginning of the new millennium contributing first to the new Flora of Dorset (2000) then co-authoring 'The Mosses and Liverworts of Dorset' (2003) with Mark Hill. He also contributed an important chapter in a book on the Ecology of Poole Harbour published in the Proceedings of Marine Science series (2005). His role in the county has always been rather understated...described as surveyor for Dorset Environmental Records Centre (DERC) doesn't really do him justice. When not surveying, Bryan spends his time running field courses, workshops and leading training programs as well as giving talks at village halls up and down the county. Recently he has had time to revise sections of a popular book on the 'Wildlife of the Jurassic Coast'. Away from botany he continues to maintain his interest in grasshoppers and in 2011 published a book on the Grasshoppers, Bush-crickets and Allies of Dorset.

However, he has not confined his interests and expertise to Dorset. One of my early memories of him was when I had arranged to meet him and Peter James at Kynance Cove on the Lizard for a day's fieldwork. I arrived late and was directed by the warden to one of the valleys where I espied him and Peter from a distance huddled down examining the underside of a serpentine boulder. Both Peter and Francis Rose realised his potential and were more than happy to give him encouragement and mentor this promising young man. I have firsthand experience of his meticulous field reports when I was asked to undertake a condition assessment of The Lizard SSSI. It was made so much easier by detailed information on the localities for many of the Lizard rarities. Often I was surprised by how he was able to spot species in the most obscure clefts and outcrops. He has also done similar work in other parts of the south-west including the Isles of Scilly and Holgar's talk this afternoon will I am sure be a testament to Bryan's survey of the *Heterodermia* populations. Fieldwork is often seen by those not as involved as an easy pleasant option but the reality is often very

different with long tiring days in the field in all weathers. Concentrating in these conditions can be extraordinary tough and Bryan is one of an elite of lichenologists that are able to maintain high standards.



Presentation to Bryan Edwards in Dorset. Photo David Brown

He has also led a number of field trips for the Society and his tutoring skills were demonstrated when he ran the excellent *Caloplaca* workshop at Kingcombe Field Centre in 2012.

Bryan became Conservation Officer at the AGM in January 2003 succeeding Tony Fletcher. Since then under his direction the Conservation Committee has been active in many areas. Notably in promoting and developing BAP Action Plans for both lichen habitats and species. His work with Plantlife has been beneficial to both it and the BLS. He has made countless contributions to *Back from the Brink* - Plantlife's species recovery programme, working on species as wide ranging as *Belonia calcicola* at Goblin Combe, to the sedge *Cyperus fuscus* by a pond in Middlesex, *Cladonia mediterranea* on the Lizard and to *Bacidia incompta* in the New Forest. One key piece of work was providing the evidence base for the selection of lichen IPAs across the UK. Whilst at the most recent Conservation Committee he astonished the members by producing a draft Red Data List for England. We wanted one but had no idea that he was working on this and although it will require some refinement it is a demonstration of Bryan's knowledge and understanding of the status of species in England.

Bryan is very deserving of the Ursula Duncan Award for his contribution both to the Society's business and through his impressive work in the field. It is especially appropriate in his case as the Ursula Duncan Award is carved out of serpentine rock from the Lizard.

Peter Lambley

(with contributions from Vince Giavarini and Tim Wilkins)

Spots before the eyes: half a century of mapping lichens

Mark R. D. Seaward (*University of Bradford*)

Swinscow Lecture delivered to the British Lichen Society at Kew Gardens on 16 January 2015

Abstract: The Mapping Scheme has undoubtedly been one of the Society's success stories: not only has it contributed to our knowledge of the distribution, ecology and status (and thereby conservation) of lichens in Britain and Ireland, but it has also involved a very large proportion of our membership as well as non-members, particularly ecologists and environmentalists, in fieldwork – affectionately known as "square bashing". The history of the BLS Mapping Scheme will be traced from its inception in September 1963, and acceptance in January 1964, to show the development of data retrieval, access and output. Particular attention will be paid to the evolution of mapping cards, the improvement in computer facilities and the elaboration of chorological material, site and red data lists. Reference will also be made to the importance of using historical data and herbaria to provide a dynamic dimension to maps. Tribute will be paid to the many who have made the Mapping Scheme and subsequent development of a BLS Database such on-going successes.

Over the years the speaker has met with many lichenological challenges, but to review more than 50 years of his life's work in 50 minutes must be one of the greatest. Visualize Jack Laundon, John Sheard and myself meeting at the Natural History Museum in September 1963 to consider implementing a mapping scheme for the British Lichen Society, then only five years old. At that time field meetings were a major part of the Society's programme, but other than meagre reports in *The Lichenologist* highlighting the rare and interesting finds, no attempt had been made to regularize field recording or to consider a national database similar to that of the Botanical Society of the British Isles. It should also be noted that at that time the BLS membership was composed mainly of academics in universities and museums,



The author with a printout from the first mapping program

as well as college and school teachers, and that the enthusiasm of the amateur had not been fully catered for. Although those at the AGM of the BLS in January 1964 recognised other areas in need of attention, such as providing a *Flora*, there was unanimous support for a Mapping Scheme as outlined by the three of us to demonstrate an opportunity to fuse the professional and amateur membership.

The Mapping Scheme has undoubtedly been one of the Society's success stories: not only did it contribute significantly to our knowledge of the distribution, ecology and status (and thereby conservation) of lichens in Britain and Ireland, but it also involved a very large proportion of our membership as well as non-members, particularly ecologists and environmentalists, in fieldwork – affectionately known as “square bashing”. Prior to this, the only distribution data for lichens had relied upon H. C. Watson's vice-county system established in the mid-19th century, which had been adopted by Walter

Watson for his *Census Catalogue of British Lichens* (1953); composed originally of 112 recording units for England, Scotland and Wales, plus one for the Channel Islands, it was expanded by a further 40 units to embrace Ireland by Robert Praeger in 1901. The new system adopted by the BLS was based on the BSBI's 10 x 10 km grid square units. Such artificiality came as a shock to some since the parochial approach (parishes & counties) was transcended; however, although the grid system for England, Scotland and Wales fitted neatly into the Ordnance Survey of Britain, it was necessary to extend these grid lines into Ireland since the Ordnance Survey of Ireland was at an angle of 15° to the former and the very basic technology available at this time could not cope with this variation from the norm. Furthermore, the c. 3500 grid square units for the BSBI had to be expanded to c. 3800 units to accommodate the needs of lichenologists who investigated rocky seashores exposed by tidal movements. Our objective, as it says on the label of the tin, was “a mapping scheme”; to achieve this, we had to develop a system “fit for purpose” which recognised that computer technology 50 years ago was very basic, so data retrieval would rely heavily on a back-of-envelope approach. We also required BLS members to adopt lichens – *Diploicia canescens*, one of Ursula Duncan's adoptions, was selected on the basis of its scarcity in Scotland; it was not until the records started rolling in that she realized the magnitude of this commitment! It was also necessary at this



Hand-spotted map

necessarily only for the purpose of creating basic lists and maps. Early trial runs had shown that elaborations of such basic information could not be achieved by the main-frame computer. Even so, punched card errors ensued and it was necessary to validate data by “chatter” print-outs/sheets (Fig. 1), and confirmed by maps on screen which were duly printed, albeit in an elongated format; any disjunct distribution spots required qualification by the recorders. The “elongated” maps were sent out to lichen specialists for annotation. To introduce a dynamic into the maps, to show, for example, past and present distributions, various symbols and colours were trialled for the 10 x 10 km grid square spots. It was clear that a single map could only demonstrate three things: where a lichen was, where it had been, and where it had not been recorded; any variation of this, such as where a lichen had been, then disappeared and subsequently returned, or distributions according to particular date-lines, could not be adequately portrayed or indeed captured/interpreted by the observer. After these trials it was decided to use just two symbols, a solid black spot to denote 1960 onwards records and an open circle to denote pre-1960 records; it should be noted that the latter represented a large proportion of late 19th century records mainly due to the declining interest in lichenology during the first half of the 20th century.

As the completed cards came into us, it was clear that we knew more about more remote areas, such as the Highlands and Islands, than what was on our doorsteps, usually a reflection of a holiday and in one case a honeymoon.

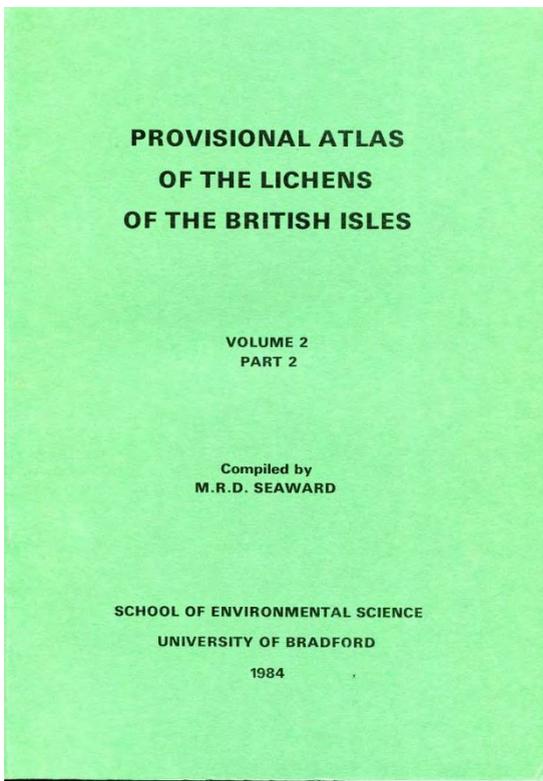
Furthermore, one could discern the trails of specialists and those that had their eye-in for particular taxa: it would appear that only Oliver Gilbert knew about *Physcia dubia* and the distribution of certain maritime *Verrucaria* taxa did not reflect the geology, but the attentions of Tony Fletcher. In consequence, the biased maps generated were of limited biogeographical value. Since field meetings were an important feature of the Society's programme, the results of which at that time were regularly published in *The Lichenologist*, attention was frequently paid to holding them in underworked areas, the objective being to provide essential distributional data for the Mapping Scheme. It was, however, pleasing to note that by the early 1980s BLS members had taken the Mapping Scheme to heart and completed mapping cards were being returned to the Mapping Recorder on an almost daily basis.

At this stage it was thought desirable to publish some maps. Although Chris Hitch and I knew that such maps would be far from complete, they would nevertheless provide a reasonable picture of what could be achieved from existing data derived from the Mapping Scheme and from the abstraction of reliable records from published and herbarium sources. So, in the late 1970s, computer-derived maps of what were thought to be reasonably well-known species in terms of their taxonomy, ecology and distribution, were distributed to colleagues, several of whom had a

specialised knowledge of the particular species. The printed versions of such maps at

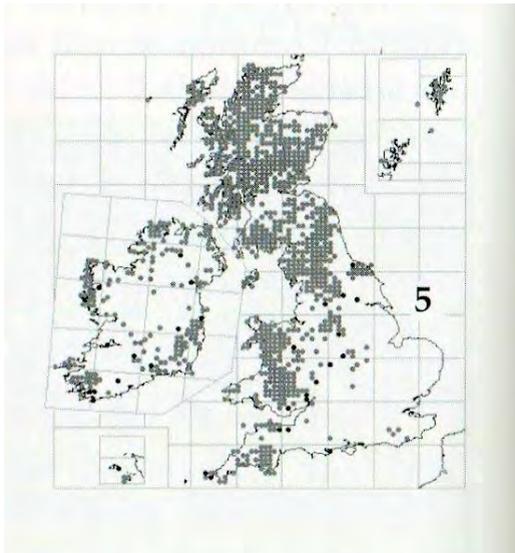
that time were elongated and lacked coastal lines, being constructed from basic symbols designated to show old (pre-1960) and new (1960 onwards) records, and unsurveyed grid squares. The response was magnificent – it is a well-known fact that if you want more detailed/accurate maps, send out preliminary versions so that the recipients can criticise the output by saying “it occurs there and here, and I am sure it grows there...” (Fig. 2)! Once the revised maps had been retrieved, and problematic “spots” resolved, 176 species were selected as being suitable for publication. However, since the computer technology to produce such maps did not exist, these had to be manually constructed and to this end we employed undergraduates over the

summer of 1980 to laboriously enter data spot-by-spot by means of Lettraset onto large-scale maps (Fig. 3). It was not until 1982 that we witnessed the results of our labours when volume 1 of *Atlas of the Lichens of the British Isles*, published by the



Institute of Terrestrial Ecology, appeared. This was warmly received, more particularly as the large format maps provided yet another opportunity for BLS members to infill gaps with further spots to make good some of the deficiencies.

With the improvement in the technology, software was developed in Bradford University's Computer Centre (by Stan Houghton and myself) to generate maps which were to stand the test of time, being very much akin to those used by other mapping programmes, and solving, for example, the problem of amalgamating the different grid systems of Britain and Ireland. In consequence, in 1984, 1985 and 1991, *Provisional Atlases* (Fig. 4) were produced in-house and circulated to interested persons for comments, the annotated copies returned providing a natural development of the Mapping Scheme, namely the publication of *Atlas fascicles*. Since our knowledge of the distributions of many species was still far from complete, the



"Dobson" map

the BLS Conservation Committee and the churchyard survey initiated by Tom Chester, as well as from important analyses of herbarium collections, often in association with the preparation of taxonomic monographs and local and indeed national floras. Such work was invaluable in the construction of Red Data Lists, the inclusion of species not only reliant upon knowing in how many squares a particular lichen was currently present but from how many squares it had disappeared. However, it is pleasing to note that this earlier work, which often demonstrated "the glory hath departed", namely the disappearance of major lichen assemblages from much of England and Wales largely due to air pollution, has been superceded in recent years by the "advance of the lichens". Such interpretations have only been made possible through detailed time and space analyses of comparative distribution patterns. The value of maps incorporating past and present distributions have proved of immense value, but it has often proved difficult to portray this on a single map, as for example where a lichen was once found, subsequently disappeared and has now returned. Even portraying past and present distributions can be fraught with

intention of the fascicles was to provide updated replacements in due course. Although six volumes were published (1995,1996,1998-2001), this intention was only realized for one species. Of particular merit was the detailed information on the ecology, biogeography, status, conservation etc. provided for each species mapped, thus making good the deficiencies of such material in the 1992 *Lichen Flora* (and indeed the 2009 *Lichen Flora*) where, due to lack of space, only abbreviated notes on such topics could be provided.

In due course, a wealth of records came into the Mapping Scheme from a wide variety of sources, such as the important surveys of selected habitats initiated by

difficulties; for example, in the case of the potentially useful maps included in earlier editions of Dobson's *Lichens* it is impossible to differentiate between the open circles and solid spots – in fact the former appear 'more solid' than the latter (Fig. 5), and in the latest edition (2011) the red/green colour scheme is not only a problem for those suffering from colour blindness, but is also unhelpful for determining changes in distribution patterns.

It is clear from the mapping work that it is of paramount importance to conserve certain archival material, including of course herbarium collections. As British lichenologists, we are singularly fortunate in having access to a very considerable amount of data, in the form of publications, archival material and herbarium collections, amassed over the past 300 years by a succession of enthusiasts, many of whom worked tirelessly to promote the subject both locally and nationally. Many of them dedicated their time, energy and indeed wealth to establishing nationwide links through voluminous and helpful correspondence, the naming and exchange of specimens, and the publication of invaluable guides to lichen identification. In so doing, they have united kindred spirits and provided the basis for the establishment of national goals achieved in the first instance by a variety of projects.

Of particular interest in this respect is the pioneering work, carried out 200 years ago, of James Sowerby and James Smith, who organized fieldworkers throughout Britain to collect fresh material to illustrate their monumental *English Botany*, which duly featured invaluable coloured plates and descriptions of numerous lichens. Similarly, the publication of Dawson Turner and Lewis Dillwyn's *The Botanist's Guide* relied upon individual county lists supplied by a network of informants. I must mention the contribution made at this time by William Borrer, who generously devoted an inordinate amount of time and, indeed, his personal fortune to helping and supporting many lichenologists; the links he established undoubtedly provided a national platform on which to develop the subject. *Lichenographa Britannica*, compiled by Turner and Borrer, demonstrates the latter's outstanding insight into lichen systematics. However, it was never completed, so it was not until the publication of William Mudd's *Manual* in 1861 that a reasonably comprehensive and practical British flora became available.

The period 1860-1890 was an extremely active period in the history of British lichenology, which was unsurpassed until after the mid-1960s; this was due in no small measure to the dedicated work of William Lindsay, William Leighton and James Crombie whose published works provided a firm basis for exploring the country's flora irrespective of where one lived – namely a basis for national rather than parochial activities.

Despite various initiatives by individuals such as Annie Lorrain Smith to revitalise the subject, British lichenology fell into decline during the first half of the 20th century. However, the vice-county recording system created by Hewett Watson in the mid-19th century was instrumental in promoting a greater interest in the British flora at a national level, particularly in respect of distributional studies. This did not have an immediate impact in terms of lichens, and although from 1873 to 1886, the Botanical Record Club, established mainly through the enthusiasm of

Frederic A. Lees, to accumulate and publish county records and exchange specimens included lichens in its terms of reference, the latter did not figure largely. In 1907, Arthur Horwood was responsible for establishing the Lichen Exchange Club of the British Isles, the first society devoted exclusively to lichens. Although its membership never exceeded 29, reports were published annually and specimen packets were distributed between members. The Club ceased to function in 1914 and it was not until 1953, when Walter Watson published his *Census Catalogue*, that a distributional analysis of the British lichen flora based on the vice-county system established 100 years earlier was accomplished.

Hence there is a wealth of published records, archived lists and correspondence, and herbarium material available for study (although its future is often uncertain). Such sources contain invaluable information to provide a dynamic element to our biogeographical and ecological studies, and thereby are essential in interpreting our past, present and indeed future environment.

Recent advances in computer technology have necessitated a rethink on various aspects of the mapping and related programmes; to this end, Janet Simkin and the Data Committee accepted the challenge and computer software and systems have been adapted or developed to furnish the Society's needs. However, although such work should be applauded, its complexity can exceed the needs of some members and, furthermore, the elaborate collection of data and their manipulation on personal computers can detract from good honest fieldwork. Added complications arise from the dissemination of this information to a wide range of databases, publications, personal requirements etc. in a variety of formats. It should be noted that in the early years of the mapping scheme, before it was necessary to go public, I was highly protective of the data, particularly in respect of the conservation of rare species and sensitive sites. However, most data were freely supplied to *bona fide* researchers, with no question of charging for supplying maps for publication provided the BLS source was duly acknowledged.

The invaluable databases assembled for England, Scotland, Wales and Ireland in recent years have been achieved in no small measure from the effective use of field data derived from many sources which has raised awareness of lichens in both the scientific and wider community, as well as providing training for beginners in lichenology; such projects are vital in promoting lichenology at a time when the number of institutional-based lichenologists is pitifully low. Information technology, mainly via the internet, has also been important in promoting a wide range of the Society's activities, including its taxonomic, mapping and biomonitoring work.

In conclusion, I quote the profound words of Lauder Lindsay in his remarkable book *A Popular History of British Lichens* published in 1856: "We may now be said to be entering on a new era in lichenology; it is now being studied in a more philosophic spirit, and with all the aids which modern discoveries in science ... can furnish. Facts are being earnestly and patiently sought after; generalization and theory avoided until a sufficiency of data be accumulated ... volunteers are coming forward ... eager for the work solely on account of its difficulty ... But the labours of the student must equally begin and terminate on the spot where the Lichens grow ... there he [& she] must watch patiently and note accurately – it may be for a series of years – the stages

of origin, growth, and decay of species under all the influences, terrestrial and aerial, by which these are so liable to be affected.”

Acknowledgements

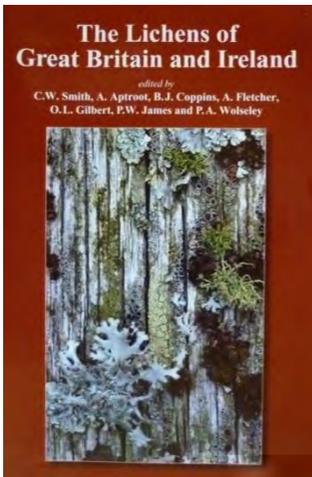
The British Lichen Society’s Mapping Scheme would have been impossible without the enthusiasm and devotion of many of its members, as well as sponsorship from a wide variety of governmental, commercial and industrial sources such as NERC, WWF, CEEB and Control Data, but more particularly from the University of Bradford, which placed no financial burden on the Society. While it is hard for me to single out the work of individuals, I must officially recognise the two years of postdoctoral work of Christopher Hitch and the Director of Bradford University’s Computer Centre, Stanley Houghton, for their unstinting contribution at a critical stage of the project. It was a privilege to front the BLS Mapping Scheme for a very major part of my life, the only downside being that I was so busy raising cash to support it, often through book sales, and dealing with other people’s data, that time was curtailed for pursuing some of my own lichenological interests.

Further reading:

- Hawksworth, D.L. & Seaward, M.R.D. (1990). Twenty-five years of lichen mapping in Great Britain and Ireland. *Stuttgarter Beitr. Naturk.*, ser.A **456**: 5-10.
- Seaward, M.R.D. (1983). The Atlas at last. *Br. Lichen Soc. Bull.* **52**: 1-6.
- Seaward, M.R.D. (1988). Progress in the study of the lichen flora of the British Isles. *Bot. J. Linn. Soc.* **96**: 81-95.
- Seaward, M.R.D. (ed.) (1995). Introduction [pp. 3-8] to *Lichen Atlas of the British Isles*. Fascicle 1. British Lichen Society, London.
- Seaward, M.R.D. (1998). Time-space analyses of the British lichen flora, with particular reference to air quality surveys. *Folia Cryptog. Estonica* **32**: 85-96.

Publications and other items for sale

Please contact The Richmond Publishing Co. Ltd, P.O. Box 963, Slough SL2 3RS, tel. (+44) (0)1753 643104, email rpc@richmond.co.uk to purchase these items.



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, £15.00 overseas

(note this is a very heavy book!).

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.

Cat.2. Fascicle 2: *Cladonia* part 1 (59 spp). 1996. **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.

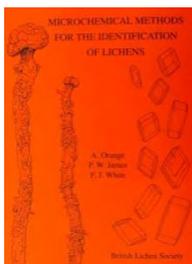
Cat.4. Fascicle 4: *Cavernularia*, *Degelia*, *Lepraria*, *Leproloma*, *Moelleropsis*, *Pannaria*, *Parmeliella*. (36 spp) 1999.

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 at a special price of £4.00 each , (approximately half price). Price to non-members is £6.00 per fascicle. Postage & Packing £3.50 UK, 10.00 overseas, per fascicle.

Cat.7. Fascicles 3 to 6 for £12.00 (Buy 3, get one free!). Price to non-members is £6.00 per fascicle. Postage and packing £8.50 UK, £25.00 overseas.



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 £9 members, £11 non-members.



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

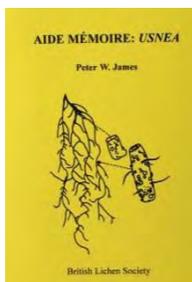
An update and revision of the 2003 edition and now extended to include lichenicolous fungi. Provides a comprehensive catalogue of threat statuses. Also included are lists of specially protected species in England, Scotland and Wales and those species for which Britain has an internationally important population. It now no. 13 of the JNCC's Species Status volume series. A4 paperback 155pgs. £7. Postage and Packing £5.00, £12.50 overseas.



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.

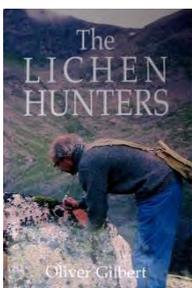
BLS members £7.00; non-members £10.00. Postage & Packing £2.50 UK, £6.50 overseas.



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 overseas.



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 overseas.



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.

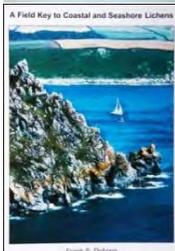
BLS members £8.95; non-members £9.95. Postage & Packing £2.50 UK, £6.50 overseas.



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 & Packing £2.50 UK, £6.50 overseas.



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 & Packing £2.50 UK, £6.50 overseas.

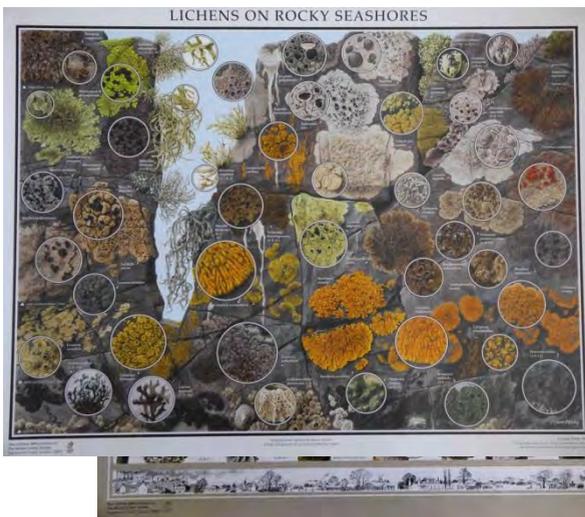


Cat. 18. A Field Key to Lichens on Trees by Frank Dobson (2013)

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 & Packing £2.50 UK, £6.50 overseas.

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 & Packing (for up to two posters) £3.00 UK, £6.50 overseas.



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 & Packing £2.00 UK, £5.00 overseas.

Cat.24. Lichen Identifier CD-Rom

This is a simple to use multi-access computer key that enables the user to find the species name and characteristics of most British and Irish lichens. It is divided into field and microscopical characters and any information available may be entered in any order to obtain a solution. With the majority of species, a few characters, noted in the field, are sufficient to identify the species. A brief note on each species further assists separation of similar species. It was originally based on *The Lichen Flora of Great Britain and Ireland* by O.W. Purvis et al (1992). It includes every species mentioned in that book plus many that have been more recently described or added to the British list. The nomenclature agrees with the most recent version of the BLS checklist. It can therefore be used to identify any of the lichens contained in the above *Flora*. In addition, it includes many species that have been added to the British and Irish lists since that time.

Lichen-Identifier will run on a PC with a 486 DX or later processor running Windows NT, 95, 98, 2000, XP, Vista and Windows 7. We regret that it is not available for Apple Mac except under PC emulation or 'Boot Camp'.

Improvements in Version 3 of *Lichen-Identifier* include: Completely revised data, where possible, using the completed sections of the new *Flora*, plus many recently described species. The conservation evaluation from *A Conservation Evaluation of British Lichens* is given for each species. Over 750 colour photographs of improved quality with a scale added to each. Every map has been updated and maps of lichenicolous fungi are included, although these are not part of the actual key.

Please note that this program includes a DataPower 2 reader which will run on an individual computer. It will not run on a multiple system in client/server mode. If you are using a server system, a site licence for DataPower 2 is required.

BLS members £26.00 for version 3, (£15.00 for upgrade from version 2).

Non-members £28.00 for version 3, (£15.00 for upgrade from version 2).

Postage & Packing £2.50 UK, £6.50 overseas.



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 overseas.



Cat.26. BLS Postcards

A set of 16 beautiful photographic postcards of British lichens.

£2.00 per set. Postage & Packing £1.50 UK, £3.00 overseas.



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, £3.00 overseas.



Cat. 28. Car sticker, diam. 12cm. peels off easily. Recognise fellow members in the car park!

£1.00. Postage & Packing £1.00 UK, £2.50 Europe, £3.00 rest of world.



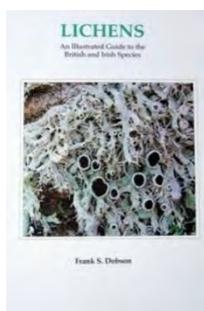
Cat. 29. Enamel badge, diam. 2.5cm, pin fixing, matt finish. A well-made sewing onto a cap or attractive badge.

£1.50. Postage & Packing £1.00. Postage & Packing £1.50 UK, £2.50 Europe, £3.00 rest of world.



Cat. 30. Fabric badge, diam. 6cm. Ideal for rucksack.

£1.00. Postage & Packing £1.00 UK, £2.50 Europe, £3.00 rest of world.



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

This latest 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 £35.00, hardback £50.00. Postage & packing £7.00 UK, overseas £10.00.

Membership Matters – from the Membership Secretary

Renewal of Membership for 2015: Subscriptions are due on or before 1st January 2015. Subscription rates remain the same as they have been in the current year. Please be aware that members who do not renew their subscription will be removed from our mailing lists in spring 2015.

Reminder - Information you will find in the top left corner (below the ‘return address’) on the envelopes in which you receive the Bulletin:

1. *Membership number.* This is a four digit number only.
2. *Expiring year.* This will show any credit you may still have for following years.

Please, keep us up to date when your contact details change! Please, also remember to inform the membership secretary when your email address changes.

Members only content on our web site. This has not yet been rolled out - you will be contacted by us with your account details once this is available.

Publication of the Winter 2015 Bulletin

Copy for the Winter 2015 Bulletin should reach the editor (contact details on the inside front cover) by 1 October 2015



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Summer 2015

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